

# Baltic Sea Maritime Safety Programme





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| Authors (from body; name, chairman and secretary of the body)<br>Steering group, Chair: Director-General Juhani Tervala, Secretary-General: Senior Adviser Sirkka-Heleena Nyman, Secretary: Senior Officer Tiina Jokinen. Working group, Chair Sirkka-Heleena Nyman, Secretaries: Tiina Jokinen and Valtteri Laine, Finnish Maritime Administration   |                            | Type of publication<br><b>Report</b>  |   |
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| Name of the publication<br><b>Baltic Sea Maritime Safety Programme</b>  |                            |   |   |
| Abstract<br><i>In the Programme, maritime safety refers to safety in connection with the structure of individual vessels, their equipment and use, the safety of movement of vessels, saving human life and the prevention of sea pollution from vessels that have been involved in an accident, and the investigation of accidents and emergencies and learning from them.</i><br>The Baltic Sea Maritime Safety Programme is based on the Finnish Government Programme. It includes a wide variety of measures to improve maritime safety in Finnish waters and on the Baltic Sea as a whole. The basic principle of the Programme is to more effectively prevent accidents and resulting loss of life and pollution of the marine environment. The guidelines and measures adopted in the Programme are based on assessments of the present state and of development trends over the next few years.<br>The programme examines maritime safety through four main themes: 1) preventing and reducing accidents, 2) saving of human lives, 3) preventing hazardous substances from getting into water, and 4) investigating accidents and dangerous situations and utilising the investigation data in accident prevention.<br>The Baltic Sea Maritime Safety Programme comprises of general guidelines regarding Government action and of individual measures. One of the general guidelines is that the Government contributes to the preparation and discussion of maritime safety issues in the European Union. Matters of importance to Finland will be promoted at the earliest possible stage of preparations with emphasis on the Baltic Sea's special conditions and the importance of maritime navigation for the Finnish economy. The national preparation and coordination of international matters will be promoted within the Government too.<br>The individual measures of the programme include effective implementation of the EU's Third Maritime Safety Package. Implementation of the eight legislative proposals the Package contains will increase maritime safety at the Baltic Sea. The implementation process calls for significant legislative measures and cooperation between the authorities over the next 18 months concerning the administrative sectors of several ministries, including the Ministry of Transport and Communications, Ministry of the Interior, Ministry of the Environment, and Ministry of Justice.<br>The Programme also pays attention to the human factor. The biggest single factor behind accidents is human activity. Human skills and activity can be influenced by means of international requirements on the training of seamen and with the help of a national training system. The individual measures also include the following: making the monitoring and control of vessel traffic more effective in the narrowest part of Gulf of Bothnia, Quark; improving sea rescue preparedness, oil-combating facilities and monitoring of sea areas; and developing the investigation of accidents and the reporting of dangerous situations. |                            |   |   |
| Keywords<br><b>Baltic Sea, maritime safety</b>  |                            |   |   |
| Miscellaneous<br><b>The Baltic Sea Maritime Safety Programme is based on a working group background report.<br/>Contact person at the Ministry: Sirkka-Heleena Nyman</b>  |                            |   |   |
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## To the Ministry of Transport and Communications

On 6 May 2008 the Ministry of Transport and Communications launched a project to draft a programme to improve maritime safety in the Baltic Sea. The project was to last from 6 May 2008 to 31 March 2009.

The idea to launch the project was based on the government programme of the second Vanhanen Cabinet, according to which the Government would prepare an action programme for improving maritime safety in the Baltic Sea. Vessel traffic safety in the Baltic Sea would be improved by developing monitoring systems, the reliability of the ice classification system, and safe navigation, in the context of international cooperation.

The draft proposal for a Baltic Sea Maritime Safety Programme was a joint effort on the part of various relevant ministries, agencies, institutions and stakeholders, and overseen by the Ministry of Transport and Communications. The project got off the ground at an initial seminar and with a large-scale survey of opinions.

Preparations for the Programme were overseen by a steering group whose chairman was Director-General Juhani Tervala of the Ministry of Transport and Communications.

The steering group consisted of the following: Mirja Kurkinen, Senior Adviser, Ministry of Justice, Colonel Kari-Pekka Rannikko, Ministry of Defence, Janne Koivukoski, Director of Rescue Services Unit, Ministry of the Interior, Nina Hyvärinen, Special Adviser, EU Affairs, Prime Minister's Office, Ari Tasanen, Counsellor, Ministry for Foreign Affairs, Olli Pahkala, Environment Counsellor, Ministry of the Environment, Brigadier General Mikko Kirjavainen, Finnish Border Guard, Mikael Nyberg, Director of Transport System Unit, Ministry of Transport and Communications (until 22.9.2008) and Minna Kivimäki, Director of Transport Services Unit, Ministry of Transport and Communications (from 23.9.2008).

The steering group's Secretary General was Sirkka-Heleena Nyman, Senior Adviser, Shipping, Ministry of Transport and Communications, and its secretary was Tiina Jokinen, Senior Officer, Ministry of Transport and Communications.

The steering group met five times, familiarising itself with the work of the Helsinki Vessel Traffic Service and Maritime Rescue Sub-centre. In addition, Finnavia gave a presentation to the group on its rules and procedures for air navigation services.

The programme was prepared by a working group in accordance with the Ministry's decision for the project and the guidelines the steering group laid down. The working group was chaired by Sirkka-Heleena Nyman, Senior Adviser, Shipping, Ministry of Transport and Communications. Its secretaries were Valtteri Laine, Pilot Service Inspector, Finnish Maritime Administration, and Tiina Jokinen, Senior Officer, Ministry of Transport and Communications.

The members of the working group were: Matti Aaltonen, Director, Finnish Maritime Administration, Ann-Christine Kivelä, Senior Officer, Finnish Maritime

Administration, Martti Heikkilä, Chief Marine Accident Investigator, Accident Investigation Board, Commander Markku Hassinen, Finnish Border Guard, Meri Hietala, Senior Officer, Finnish Environment Institute, Tapio Nyman, Senior Research Officer, Technical Research Centre of Finland, Lolan Eriksson, Senior Adviser, Ministry of Transport and Communications and Commander Kari Aapro, Ministry of Defence (from 23.9.2008).

The working group met 11 times, consulting with experts according to a plan approved by the steering group.

The Programme is based on a background report produced by the working group, which is attached to the Programme.

The steering group hereby submits the Baltic Sea Maritime Safety Programme to Anu Vehviläinen, Minister of Transport.

Helsinki, 6 March 2009

Juhani Tervala

Mirja Kurkinen

Kari-Pekka Rannikko

Janne Koivukoski

Nina Hyvärinen

Ari Tasanen

Olli Pahkala

Mikko Kirjavainen

Minna Kivimäki

Sirkka-Heleena Nyman

Tiina Jokinen

## BACKGROUND

The Baltic Sea region is an industrialised economic area which has seen rapid growth in recent years and which needs efficient, well-functioning and environmentally friendly transport connections. The Baltic Sea is a key transport route connecting the states surrounding it to each other and the rest of the world.

The Baltic extends from the Kattegat, which separates Sweden from Denmark, to the Gulf of Finland and the Gulf of Bothnia in the far north. The countries with a coastline on the Baltic are Denmark, Sweden, Germany, Poland, Lithuania, Latvia, Estonia, Russia and Finland.

Vessel traffic volumes have significantly increased in the Baltic Sea and the Gulf of Finland in recent years and growth in the long term is expected to continue. Of major significance are the increases in the volumes of oil being transported and in passenger traffic. The recession that started last autumn, however, has resulted in less traffic flowing into Finnish ports. At present it is impossible to say how big the effect of the economic situation will be on volumes of sea freight or how long it will last.

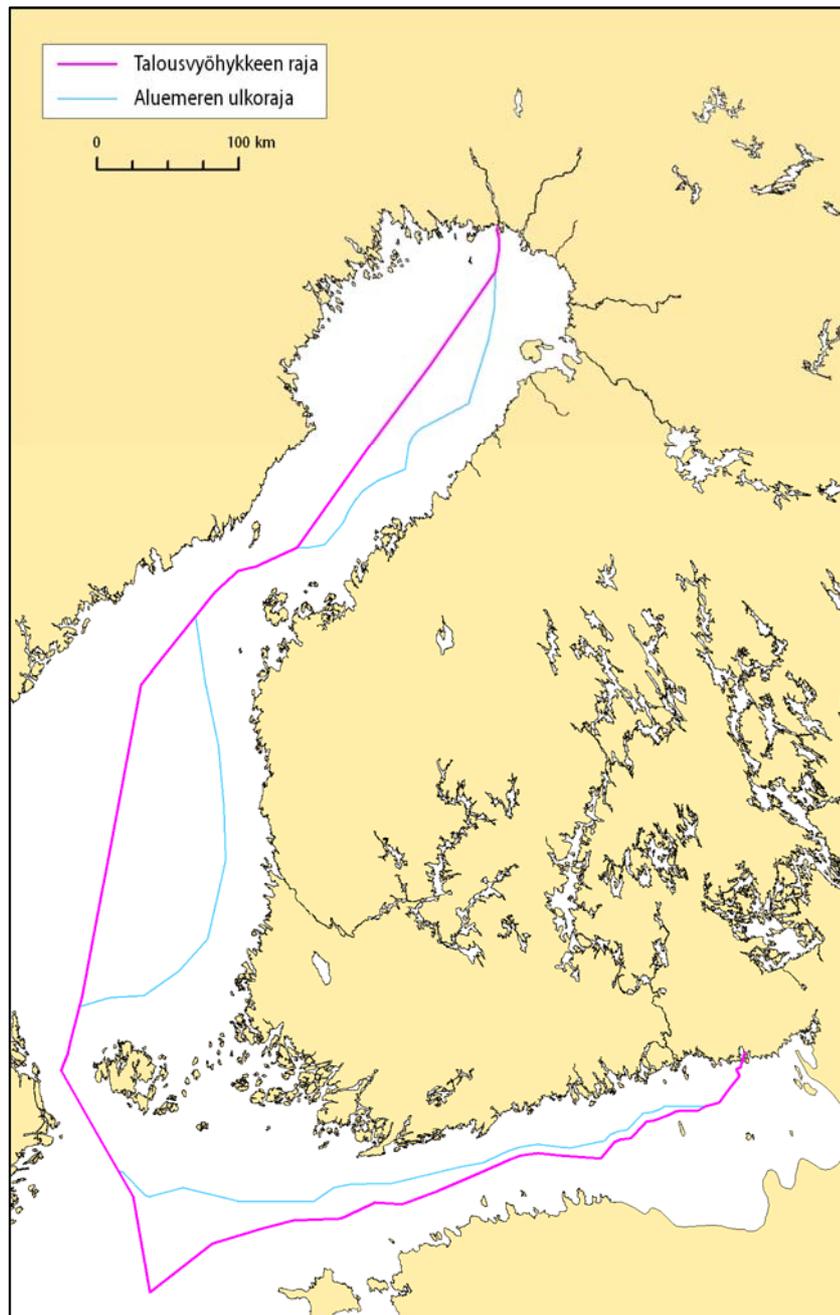
The growth in traffic is one factor that increases the risk of accidents. Accidents involving ships always carry with them the risk of some degree of environmental damage and personal injury. If a big tanker runs aground or has a collision, the damage could lead to substantial environmental harm.

Passenger traffic in the Gulf of Finland is also heavy and regular routes intersect those used by large tankers. If a passenger vessel were to collide with a tanker there could be a major, multiple disaster.

The Baltic is a shallow brackish water basin, which ices over at its northern and eastern ends every winter. Its low-lying coastlines, archipelagos and harsh winter conditions together constitute a demanding navigational environment, which adds to the likelihood of accidents and emergencies.

Climate change is predicted to shorten the period of winter ice in the future. A greater incidence of storms, however, will add to the problem of pack ice and ice collecting in the structures of sea vessels.

Accidents can be prevented by enforcing requirements and introducing measures relating to vessels, their crews and their movement. The amount of damage caused to the human and marine environment by accidents could be reduced if effective arrangements are in place to save human life and prevent harm to the environment.



Limit of economic zone

Outer limit of territorial waters

**Chart 1.** Limit of Finland's economic zone and outer limit of her territorial waters (Source: Finnish Maritime Administration)

## EVALUATION OF CURRENT SITUATION

Volumes of vessel traffic in Finnish territorial waters and the Baltic Sea generally have grown considerably in the last few years. But at the same time there has been a clearly downward trend in the number of accidents.

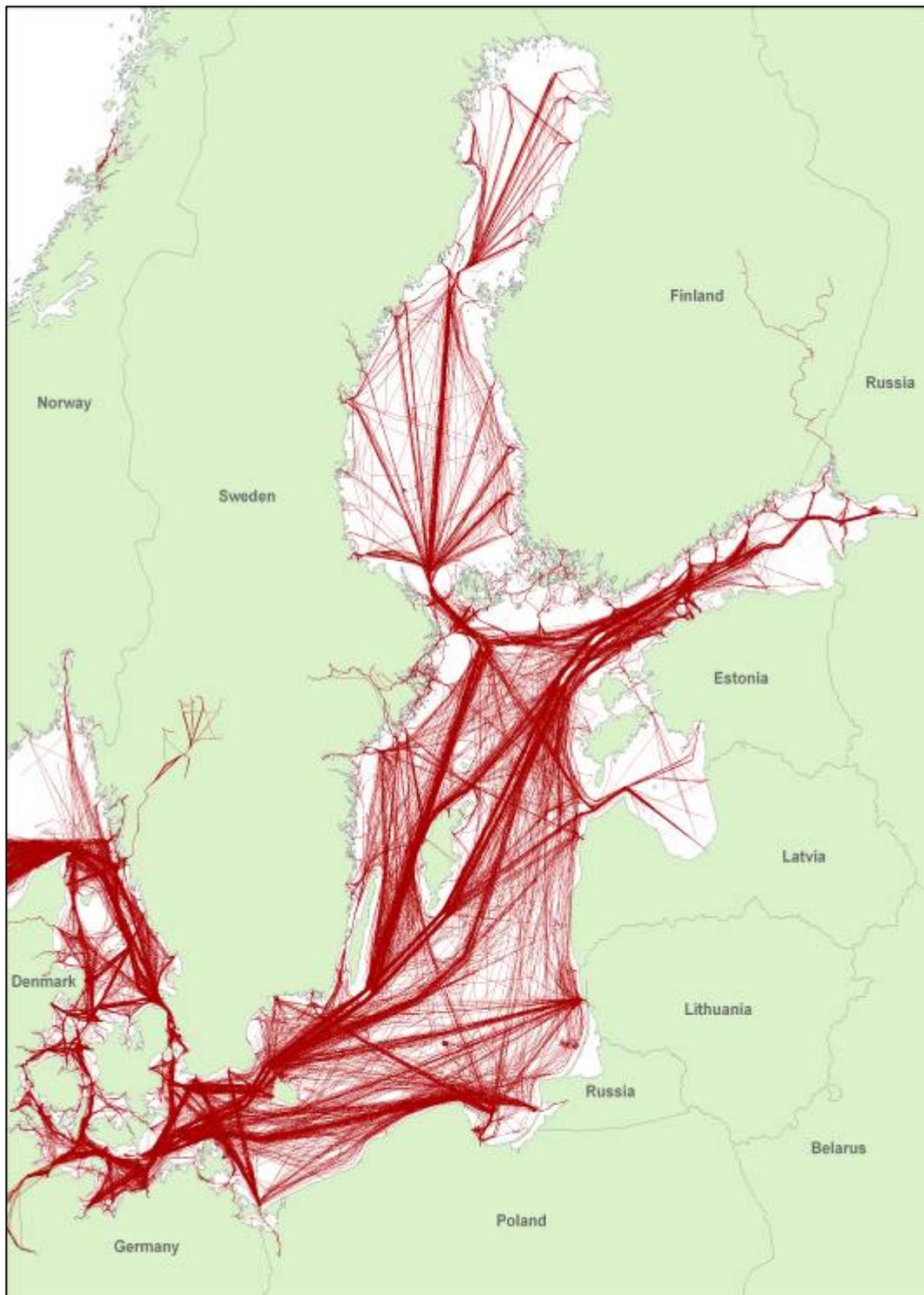
It is furthermore evident from the statistics on accidents that accidents to vessels have mainly related to touching ground or slight collisions, the consequences of which have been minimal.

Merchant ships flying the Finnish flag have not suffered any loss of human life in accidents occurring in the present decade (2000s). However, there have been accidents to vessels in the Baltic region this decade in which several people have perished.

Accidents have only very rarely resulted in hazardous or harmful substances getting into the water, and volumes of substances have been fairly small.

An analysis of traffic criss-crossing in the Gulf of Finland commissioned for the project preparing the Baltic Sea Maritime Safety programme suggests that close encounters of vessels in the area have become fewer in number and that adherence to the rules of navigation has improved. This has probably had much to do with the obligatory reporting system, GOFREP (Gulf of Finland Reporting System), which was introduced in international waters in the Gulf of Finland in 2004, and the Vessel Traffic Service (VTS) in the territorial waters of the countries on the Baltic Sea.

Despite what seems to be a favourable trend, however, each year accidents and emergencies still occur in their dozens. The volumes of vessel traffic in the Gulf of Finland and the Baltic Sea, the region's special circumstances, and traffic risk factors mean that continuous, determined efforts have to be made if the healthy trend of the past few years is to continue and serious accidents and their consequences are to be avoided.



**Chart 2.** Lines depicting Baltic shipping routes for just one week in 2007. The data is taken from the AIS (Automatic Identification System) database, which helps identify vessels and is maintained by HELCOM (Baltic Marine Environment Protection Commission, or Helsinki Commission).

## THE PROGRAMME'S OBJECTIVES AND BASIC PREMISES

The object of the programme was to determine policies and measures to improve the maritime safety of the Baltic Sea and which Finland would implement nationally and promote through international cooperation. This way all the resources in the hands of the relevant ministries, authorities and other actors could be channelled into areas of importance to Finland.

*In the Programme, maritime safety refers to safety in connection with the structure of individual vessels, their equipment and use, the safety of movement of vessels, saving human life and the prevention of sea pollution from vessels that have been involved in an accident, and the investigation of accidents and emergencies and learning from them.*

In the broader sense, maritime safety could also extend to emissions into the air and water resulting from the normal use of vessels, and the harm to people and the environment these cause, as well as the prevention of the spread of piracy, terrorism and weapons of mass destruction. These are not covered under the Programme, however.

Because maritime navigation is by nature an international phenomenon, maritime safety can only be effectively promoted through the use of international agreements. Navigation is mainly regulated by the United Nations Convention on the Law of the Sea, the International Maritime Organisation (IMO), the main international channel of cooperation, and IMO conventions.

In matters of maritime safety in the Baltic Sea and in Finnish territorial waters, Finland has a high profile as a port and a coastal state, as referred to in the United Nations Convention on the Law of the Sea, as only around 30% of vessels that regularly sail into her ports fly the Finnish flag, and thus are subject to direct monitoring by the Finnish authorities in the way described in international treaties and Community legislation. The monitoring of other vessels is only possible to the extent granted in international agreements.

The European Union is an important actor internationally in matters relating to maritime safety, by virtue of the sheer size of Community legislation and its competence as a result. There are several large seafaring nations in the EU. Shipping companies in the EU and the EEA own around 41% of the world's merchant fleet.

In addition to its laws on maritime safety and their implementation, the EU exercises an integrated maritime policy to promote the sustainable use of the seas as a comprehensive framework of policies. The EU is also preparing its Baltic Sea strategy, which includes concrete projects to improve maritime safety and the supervision of sea areas.

The drafting of the Baltic Sea Safety programme has been timetabled so that the Programme can be made use of as it impacts on the preparation of the EU's Baltic Sea strategy and while the Finnish Government report to Parliament on the Baltic Sea is being put together.

The Baltic Sea Maritime Safety Programme is an extensive action programme to increase maritime safety in Finnish waters and the Baltic as a whole.

The programme examines the issue of maritime safety from four main standpoints: accident prevention and reduction, saving human life, the prevention of harmful substances in the water, and the investigation of accidents and emergencies, including the exploitation of this data for the prevention of future accidents.

The policies and measures adopted under the Programme are guided by an evaluation of the current state of affairs and expected trends over the next few years.

The Baltic Sea Maritime Safety Programme's basic premise is that every effort should be made to do more to prevent accidents and ensuing loss of human life and contamination of the marine environment.

Accidents can be prevented in a number of ways. There need to be international requirements relating to vessels, their crews and their use, and compliance with these should be monitored. Vessel traffic needs to be monitored and controlled by means of the VTS in national waters and the GOFREP in international waters. There need to be both obligatory services for vessels (pilotage in national waters) and voluntary services (pilotage in the Baltic Sea). And there should be weather bulletins and ice alerts as necessary.

When it was being drawn up, the Programme also took account of the crucial human factor, which statistics suggest is the greatest single cause of accidents.

In spite of all the measures taken to promote safety, it seems that accidents cannot be entirely avoided. Accordingly, arrangements need to be in place to save the lives of those on vessels involved in accidents and to prevent possible hazardous and harmful substances from getting into the marine environment as a result of such accidents.

## MEASURES BEING IMPLEMENTED AND PROMOTED BY THE GOVERNMENT:

### 1 General policies

#### 1.1 Contributing to the preparation and discussion of matters relating to maritime safety in the European Union

The main forum for issues relating to maritime safety for Finland and the Baltic Sea region is the EU, which has extensive powers in this area. It is for this reason that issues handled by the IMO are coordinated at Community level.

Legislation on maritime safety is largely based on IMO conventions, resolutions and recommendations.

The Community has special competence in areas that concern the technical requirements of vessels, the monitoring of vessels by port states and the monitoring of vessel traffic. Community legislation currently includes more than 40 acts relating to maritime safety. The Third Maritime Safety Package, passed in December 2008, will increase the number of acts in this area even more.

The principle actor for issues relating to maritime safety is the European Commission, which has a legal right of initiative and responsibility for drafting policy and strategy documents.

Raising issues crucial to Finland and taking them forward relies on influence at all levels and in all institutions in the EU. It is essential that Finland makes an effort to have an influence as early on as possible.

The European Maritime Safety Agency (EMSA) assists the Commission in drafting legislation, assessing implementation of legislation and maintaining information systems shared by Member States, such as the information exchange system on the movement of vessels and dangerous loads (SafeSeaNet) and the system used to monitor vessel oil discharges (CleanSeaNet). EMSA has also reserved under contract the use of oil-combating vessels by Member States with the guarantee of a certain response time. In addition, EMSA promotes cooperation between Member States by organising meetings of experts and training seminars in maritime safety, the prevention of environmental damage from ships, and investigating accidents.

#### Coordination of IMO matters by the EU

Matters handled by the IMO are coordinated at EU level prior to meetings. In those which fall within the competence of the Community, the IMO adopts the Community's position. In order to take forward matters of importance to Finland, there needs to be a special effort to contribute to the EU coordination of the work of the IMO sub-committees.

#### The EU's integrated maritime policy and the Baltic Sea strategy

The aim of the EU's integrated maritime policy adopted at the end of 2007 is to promote the sustainable use of seas and harmonise the interests of opposing or rival maritime actors with reference to the ecosystem and the issue as a whole.

The Commission-led EU Baltic Sea strategy provides a regionally focused policy framework to promote maritime issues. The Commission has provisionally outlined four pillars to be included in the strategy. These examine the Baltic region as:

- 1) an area of sustainable environmental policy
- 2) an area of economic prosperity
- 3) an interesting area and one that is viable owing to its good connections
- 4) a safe area.

The Baltic Sea Maritime Safety Programme will be used to influence the preparation of the section on maritime safety.

The EU-Russia political dialogue

The political dialogue between the EU and Russia, in which maritime issues are also handled at working group level, provides a channel for bringing Russian regulations and practices more in line with EU rules and regulations.

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| <b>Action:</b>         | <ol style="list-style-type: none"> <li>1. To promote matters of importance to Finland at the earliest possible stage of preparations with emphasis on the Baltic Sea's special conditions and the importance of maritime navigation for the Finnish economy.</li> <li>2. To actively influence the drafting of Community legislation on maritime safety and the EU's coordination of matters dealt with by the IMO, and to take forward in particular issues that are included in this Baltic Sea Maritime Safety Programme.</li> <li>3. To participate and to actively influence the preparation and implementation of the EU's Baltic Sea strategy. To take an active role in Commission-led and EMSA-led cooperation between Member States and to improve coordination in connection with this at national level.</li> <li>4. To participate and influence EU-Russian dialogue with regard to any current issues concerning maritime safety in the Baltic Sea.</li> </ol> |
| <b>Timetable:</b>      | Ongoing  |
| <b>Responsibility:</b> | Ministries: <b>Transport and Communications</b> , Foreign Affairs, Environment, Justice, Interior, Defence; Prime Minister's Office  |

## 1.2 More effective participation in the work of the IMO

Key laws on maritime safety are drafted and approved by International Maritime Organisation committees and sub-committees. Issues of importance to Finland can be promoted in cooperation with other EU countries and the Commission, within the context of EU coordination. With regard to single issues of importance to Finland, such as the monitoring of vessel traffic in the Baltic Sea, there is also cooperation with other countries. It might be possible to exert influence at the earliest possible stage with reference to national policies and impact assessments.

It is the Ministry of Transport and Communications that has responsibility for the preparation and coordination at national and EU level of matters handled by the IMO. The Ministry also appoints the necessary delegations.

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| <b>Action:</b>         | <b>1.</b> To make efforts to exert influence in the preparation and EU coordination of matters handled by the IMO at the earliest possible stage and to take forward issues that are included in the Baltic Sea Maritime Safety Programme. |
| <b>Timetable:</b>      | <b>1.</b> Ongoing  |
| <b>Responsibility:</b> | <b>1.</b> Ministries: <b>Transport and Communications,</b> Environment, Justice, Interior/Border Guard   |

### 1.3 Developing multilateral and bilateral cooperation in maritime safety between the countries on the Baltic Sea

There are at present several different forums of cooperation in the Baltic Sea region. Cooperation within the context of the EU has a central role, because all the countries on the Baltic, with the exception of Russia, are EU members. However, Russia is an important partner in the promotion of maritime safety and the prevention of marine pollution from ships, especially for its closest neighbours, but also for other countries on the Baltic Sea.

The EU, its northern Member States and Russia all have contact with one another in a number of forums for practical cooperation with regard to the Baltic Sea. These include the Northern Dimension initiative, the Council of the Baltic Sea States (CBSS), and arrangements for direct cooperation of the competent authorities in the countries in the region.

#### Cooperation between transport ministries

The obligatory Gulf of Finland Reporting System, GOFREP, that Finland, Russia and Estonia together maintain in international waters of the Gulf of Finland is a good example of cooperation between Baltic Sea countries. The transport ministries in these countries agreed to establish the system and obtained approval for it from the IMO.

It would be possible to exploit similar agreements between transport ministries on a wider scale in promoting maritime safety throughout the entire Baltic Sea region.

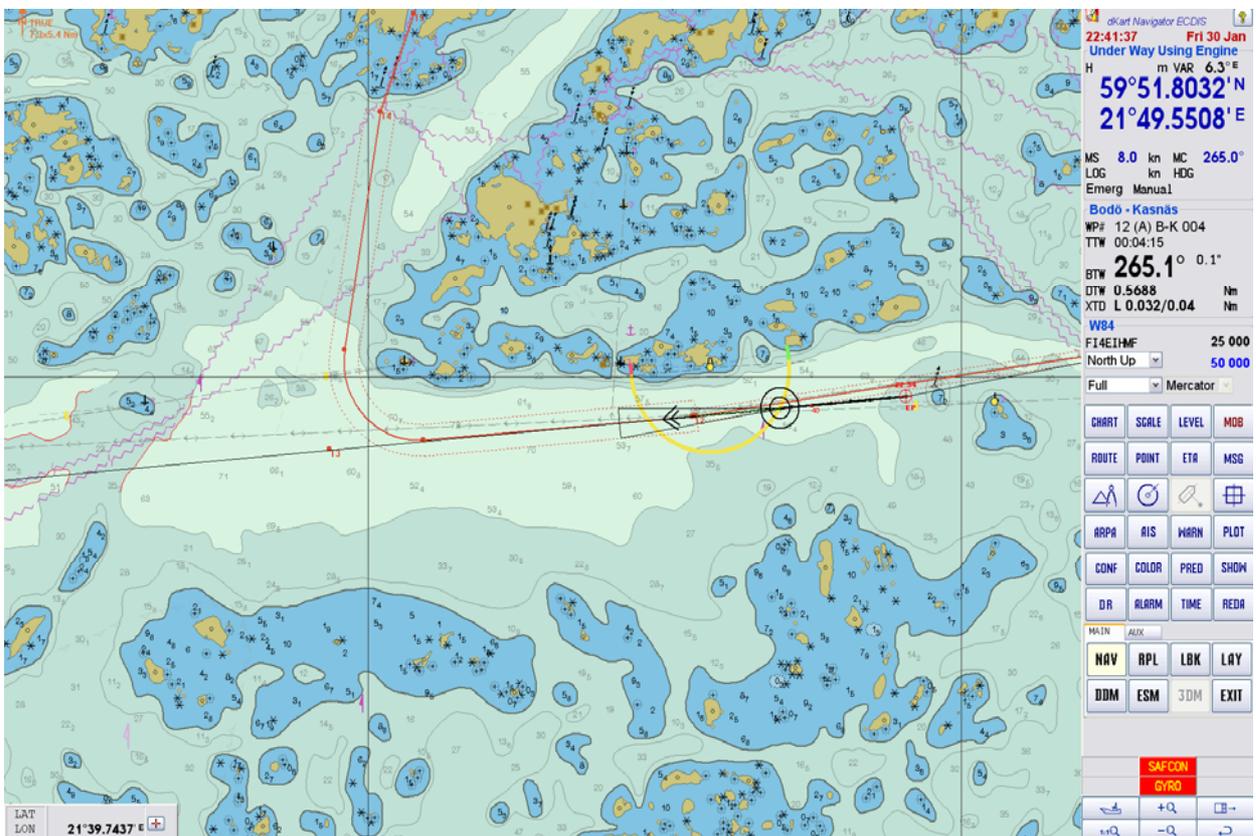
Baltic Sea countries also enjoy bilateral and multilateral cooperation and partnerships in the areas of sea rescue, the prevention of hazardous substances getting into the sea and accident investigation. These are based on international agreements and recommendations. Cooperation between all the Baltic Sea countries in marine pollution prevention mainly takes place within the framework of HELCOM, the Baltic Marine Environment Protection Commission.

Baltic Marine Environment Protection Commission, HELCOM

The purpose of HELCOM (1992) is to prevent the pollution of the Baltic Sea and promote the restoration of its ecological balance. HELCOM monitors compliance with the Helsinki Convention, promotes cooperation between its member states and the authorities, and encourages research.

The Convention and its Annex IV include several provisions relating to the prevention of pollution from ships, to the prevention of emissions, and to cooperation. The parties to the Convention are also committed to cooperation in the development of international regulations.

With respect to maritime safety, Appendix IV mentions undertaking systematic hydrographic surveys of the main shipping routes and promoting the use of the electronic navigation system, ECDIS (Electronic Chart Display and Information System).



**Chart 3.** Image of the navigational situation in the Archipelago Sea northeast of Jurmo on the ECDIS monitor. The location of the vessel is marked with a circle shape, in front of which is the vector showing the vessel's direction. The equipment's alarm limit has been set at 10 metres with reference to the ship's draught and areas of water shallower than this are shown in dark blue on the base map. The red line indicates the vessel's planned route on the electronic map being used. The panel on the right gives information on such matters as the vessel's position and movement and shows the buttons that are used with the navigation application (Source: Finnish Maritime Administration)

In addition, the countries on the Baltic Sea together maintain a ground station network for receiving and recording information on a ship's location, etc. sent by the AIS (Automatic Identification System), as required under international agreements within the framework of HELCOM and Community law. HELCOM is also responsible for compiling statistics on vessel traffic on the basis of the data provided by the system.

The Copenhagen Declaration that was adopted at the HELCOM Ministerial Meeting in Copenhagen in 2001, attended, unusually perhaps, by environment as well as transport ministers, consists of numerous projects to promote maritime safety. The majority of these have already been implemented.

In autumn 2007 a HELCOM Ministerial Meeting adopted the Baltic Sea Action Plan. Its aim is to restore the good ecological status of the Baltic Sea. The Action Plan contains several measures to prevent pollution of the marine environment from ships and to prevent emissions/discharges. These include a regional appraisal of environmental risks in order to plan the scale of the preventive measures to be introduced.

HELCOM mainly meets as an assembly of environment ministers and the Ministry of the Environment is responsible for the national preparation and coordination of matters for consideration.

The Ministry of Transport and Communications is responsible for the preparation and coordination of matters relating to the working group on maritime affairs (HELCOM Maritime).

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| <b>Action:</b>         | <ol style="list-style-type: none"> <li>1. To draft a proposal for a Memorandum of Understanding on increasing maritime safety in the Baltic, in order to enhance cooperation between transport ministries in the Baltic Sea countries.</li> <li>2. To implement HELCOM's Baltic Sea Action Plan nationally and promote measures included in the Baltic Sea Maritime Safety Programme when participating in the work of HELCOM.</li> </ol> |
| <b>Timetable:</b>      | <ol style="list-style-type: none"> <li>1. To commence in 2010</li> <li>2. In accordance with HELCOM's timetable</li> </ol>  |
| <b>Responsibility:</b> | <ol style="list-style-type: none"> <li>1. Ministry of Transport and Communications</li> <li>2. Ministries: Environment, Transport and Communications, Defence</li> </ol>  |

## 1.4 Developing the national preparation and coordination of international matters

Finland is represented by several ministries and officials from various institutions when the EU, the IMO and HELCOM are debating matters to do with maritime safety.

An effective statement of the national view and coordination at the earliest possible stage of preparations will make for greater influence in EU coordination and decision-making by international organisations.

Developing national impact assessment, statements of views and coordination, for example, in a direction that is in line with the coordination of matters handled by the EU, would result in a more systematic approach to national decision-making.

Several EU and international projects connected with the Baltic Sea region are at present in the preparation stage. These will continue for years to come.

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| <b>Action:</b>         | <ol style="list-style-type: none"> <li>1. To improve the way international maritime safety matters are handled and coordinated nationally at ministerial level and at all levels of administration.</li> <li>2. To develop stakeholder cooperation and the national preparatory and coordination process for handling matters of maritime safety and the protection of the marine environment at the IMO and HELCOM.</li> </ol> |
| <b>Timetable:</b>      | Ongoing. Preparations to commence in 2009   |
| <b>Responsibility:</b> | Ministries: <b>Transport and Communications</b> , Environment, Foreign Affairs, Interior/Border Guard, Justice, Defence; Prime Minister's Office  |

## 2 Individual measures

### 2.1 Effective implementation of the EU's Third Maritime Safety Package

The Third Maritime Safety Package, adopted in December 2008, is a comprehensive package of legislative proposals. The eight proposals it contains will have a major impact on maritime safety in Finnish territorial waters and the Baltic Sea in the years to come. In this respect, of greatest importance are the Port State Control and Traffic Monitoring Directives.

The complete reform of the Port State Control Directive will result in the establishment of a new control system, and the aim is for all vessels sailing or moored in EU ports to be inspected. How often this takes place will depend on each vessel's risk profile, so that ships in poor condition and at high risk will be checked more frequently and thoroughly than ships in good condition. Vessels in poor condition

could also be forced to remain in the port and could even be refused entry into the ports of EU Member States.

The amendment to the Traffic Monitoring Directive provides more regulations to make the monitoring of vessel traffic more effective with the use of the EU's common information exchange system, SafeSeaNet and the EU LRIT (Long Range Identification and Tracking of Ships) Data Centre. The Directive also contains convergent regulations on taking ships in need of help to a place of refuge. The Directive also takes account of winter-time navigation and includes a regulation that gives Member States the right, should they so wish, to impose structural requirements for ships sailing in icy conditions and restrictions on movement. This corresponds to current practice in Finland.

Both directives incorporate obligations of cooperation, so for them to be implemented it is essential to establish viable cooperation in the Baltic Sea region. It is especially crucial for maritime safety in the Baltic that Russia is also far more fundamentally involved in cooperation in checks on vessels in port states, the monitoring of vessel traffic and the exchange of information, and taking ships to a place of refuge. In this area, action on the part of Finland could also be of major significance in the EU.

The purpose of the Directive on the Conformity Requirements of Flag States is to ensure that Member States actually fulfil their obligations as flag states before they allow their flag to be used, and, furthermore, when a ship is sailing under their flag. The main provision in the Directive is the call for Member States to engage in a Voluntary IMO Member State Audit Scheme. The IMO scheme provides contracting states with an impartial assessment of how effectively they are ratifying and implementing IMO conventions.

The assessment involves an examination of the activities of the Member State as a flag state, coastal state and port state. In Finland the Ministry of Transport and Communications and the Finnish Maritime Administration are subject to such assessments, as are other ministries and their relevant administrative sectors that are responsible for the tasks based on the provisions of IMO conventions, such as sea rescue, the monitoring of illegal emissions and discharges and the investigation of accidents.

The Directive on Classification Societies has been reformed as two separate provision, the Directive on Classification Societies and the Regulation on Classification Societies. These provisions will serve to strengthen the monitoring and system of penalties for classification societies that inspect and certify vessels.

The Directive on Accident Investigations establishes principles at EU level for conducting technical safety investigations of accidents at sea and a framework for cooperation between Member States and EMSA, especially in the area of accidents in which there is more than one Member State involved. The Directive takes account of the IMO sea accident code in its present format.

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| <b>Action:</b>         | <ol style="list-style-type: none"> <li>1. To introduce the legislative changes required for national implementation of the provisions contained in the Third Maritime Safety Package within the timeframe allowed for implementation (18 months). Laws to be amended include the Vessel Traffic Service Act, the Ship Safety Control Act and the Accident Investigation Act.</li> <br/> <li>2. To ask the IMO to conduct an evaluation of the management of maritime safety matters in respect of IMO contract states (Voluntary IMO Member State Audit Scheme), as required under the Directive on the Conformity Requirements of Flag States contained in the EU's Third Maritime Safety Package.</li> <br/> <li>3. To agree on cooperation with neighbouring states, especially Sweden and Estonia, as required for the implementation of the Safety Package. Cooperation is required in at least the following areas: exchange of information on the monitoring of vessel traffic, taking ships to places of refuge, and the investigation of accidents.</li> </ol> |
| <b>Timetable:</b>      | By the end of 2010  |
| <b>Responsibility:</b> | <b>1 – 3.</b> Ministries: Transport and Communications, Environment, Justice, where relevant to each.   |

## 2.2 Developing the monitoring and control of vessel traffic

Making the monitoring and control of vessel traffic in Finnish waters and the Baltic Sea as a whole more effective, with exchanges of information on shipping, will improve the predictability of traffic flows and volumes and increase safety. It will provide the official bodies responsible for sea rescue and combating oil spillages with the information they need and enable them to become operational sooner.

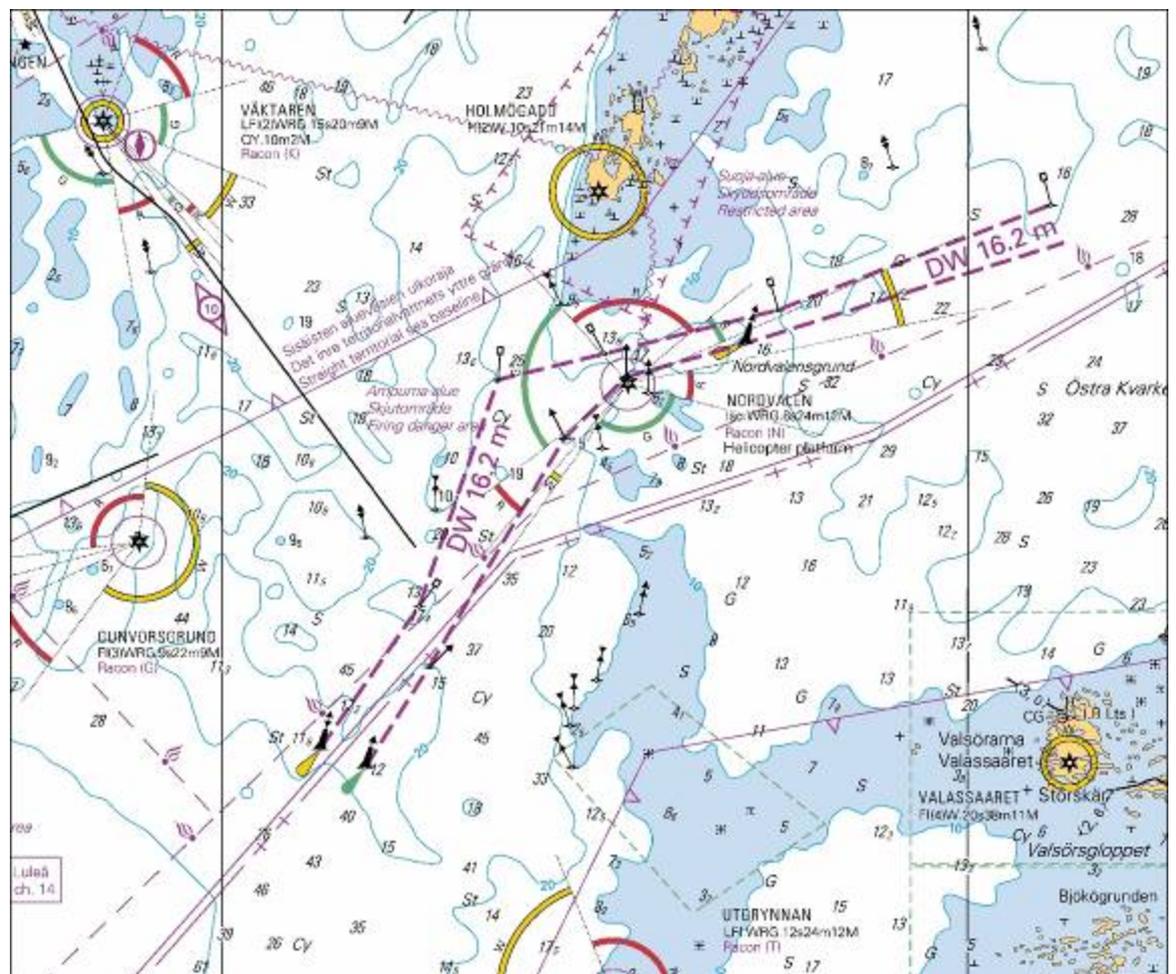
The amendment to the Traffic Monitoring Directive contained in the Third Maritime Safety Package extends to the further development of SafeSeaNet, the EU's information exchange system. In addition, the EU Member States have decided to establish a joint LRIT Data Centre, which will, on behalf of Member States, discharge the obligation contained in the international SOLAS Convention for the Safety of Life at Sea with regard to the long range identification and tracking of ships.

The obligatory GOFREP (Gulf of Finland Reporting System) that Finland, Russia and Estonia maintain in cooperation in international waters in the Gulf of Finland is a very satisfactory example of cooperation between coastal states. The use of similar vessel traffic routing and reporting systems would improve the predictability of maritime navigation and its safety in other parts of the Baltic Sea.

The deepwater channel in the narrowest part of Gulf of Bothnia (DW route 16.2 m) changes repeatedly direction and is just 732 metres wide at its narrowest point and has no separate lanes for vessels travelling north and south. More than 10,000 ships pass through this section of the Gulf, known as the Kvarken, each year. Mining projects in the north of Finland would significantly add to the volume of traffic. There are also passenger ships on intersecting routes in this area. The Gulf of Finland freezes over every winter and this is an additional challenge for navigation.

The Kvarken area has been designated a UNESCO world natural heritage site.

The Kvarken channel is mainly located in Swedish territorial waters. If the routing and monitoring of vessel traffic is to be improved here it would need the agreement of Sweden.



**Chart 4.** The Kvarken channel (Source: Finnish Maritime Administration)

|                        |  |
|------------------------|--|
| <b>Action:</b>         | <ol style="list-style-type: none"> <li>1. To develop measures for the monitoring and control of vessel traffic with the aim of making them a key part of the Memorandum of Understanding of the transport ministries of the Baltic Sea countries. To exploit in the preparatory work the research and methods concerning the identification and control of risks.</li> <li>2. To invest at ministerial level in tripartite cooperation with Russia and Estonia on maintaining and developing the obligatory ship reporting system in the Gulf of Finland (GOFREP) .</li> <li>3. To draft a plan in collaboration with Sweden to develop traffic routing and control in the Kvarken.</li> </ol> |
| <b>Timetable:</b>      | <ol style="list-style-type: none"> <li>1.To commence by the end of 2010</li> <li>2. Ongoing</li> <li>3. To commence by the end of 2010</li> </ol>  |
| <b>Responsibility:</b> | Ministry of Transport and Communications   |

### 2.3 Developing the skills of seamen and taking account of the human factor

The biggest single factor behind accidents is human activity. The risk of accidents can be reduced through focus on human skills and activity. It is of enormous importance for maritime navigation that training for seamen is appropriate and up-to-date (taking account of legislation, technical systems, special conditions, e.g. in the Baltic). Other important areas of focus are how alert crews are (tiredness, use of intoxicants) and the standardisation and automation of technical systems and work routines on the bridge.

A key project that is in preparation and concerned with human skills and activity is the complete reform by the IMO of the Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW). The aim of the reform is to improve seamen's qualifications and take account of phenomena such as the challenges of new technology and the needs of commercial shipping. For the Baltic Sea the review means it will be possible to focus attention in such areas as the manning of ships, crew qualification records, navigational skills and the issue of the alertness of crews.

More can be done to promote human skills and avoid earlier mistakes by keeping seamen informed about the causes of accidents and emergencies, effectively and respecting anonymity, and by using this information in the training of seamen.

|                        |  |
|------------------------|--|
| <b>Action:</b>         | <p><b>1.</b> To set national targets in preparing the complete reform of Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) in the EU and the IMO, taking account of the special features of the Baltic sea region. To act in cooperation with other countries in the region.</p> <p><b>2.</b> To develop a national training system for seamen, taking account of developments worldwide and information obtained via the investigation of accidents and reports on emergencies. To develop special training courses, such as ice navigation and the use of new technology systems.</p> |
| <b>Timetable:</b>      | <p><b>1.</b> In 2009</p> <p><b>2.</b> Ongoing</p>  |
| <b>Responsibility:</b> | <b>Ministry of Transport and Communications, Ministry of Education</b>   |

## 2.4 Improving sea rescue preparedness

The structural safety of new passenger ships (built after 2010) will improve with the provision in the SOLAS Convention concerning 'safe return to port' that entered into force at the start of 2009. The provision is meant to ensure that a vessel and its passengers can return safely to a port after certain kinds of leakages or fires. The new regulations reduce the need to evacuate passengers at sea.

Despite expected improvements, there is still a need to develop the sea rescue systems both of the coastal states and the vessels themselves.

The Internal Security Programme adopted by the Government in 2008 states with regard to the prevention of major accidents and environmental destruction that what would constitute a challenging major accident for rescue operations would be a collision between a large passenger ship and a tanker. In a multiple accident at sea like this it must be possible to save human life, prepare to prevent environmental damage and salvage property all at the same time.

The Internal Security Programme states that improvements will be made to the preparedness for major accidents and the prevention of environmental damage, as a cross-administrative, strategic policy. One of the necessary measures stated is to improve the management of major accidents and environmental damage by improving the functionality of preparedness (rapid response) systems through ensuring the compatibility of the command, situational awareness and communications systems.

|                        |   |
|------------------------|---|
| <b>Action:</b>         | <ol style="list-style-type: none"> <li>1. To bring new international regulations promptly into force at national level and to actively participate in any projects that keep damaged ships operative and relate to special requirements for life-saving equipment aboard vessels.</li> <li>2. To develop cooperation between the authorities responsible for sea rescue services in the Baltic Sea region.</li> <li>3. To develop cooperation between the national authorities responsible for sea rescue services, taking account of the targets and objectives contained in the Internal Security Programme.</li> </ol> |
| <b>Timetable:</b>      | <ol style="list-style-type: none"> <li>1. By the end of 2010</li> <li>2-3. Ongoing</li> </ol>   |
| <b>Responsibility:</b> | <ol style="list-style-type: none"> <li>1. Ministry of Transport and Communications</li> <li>2-3. Ministries: <b>Interior/Border Guard</b>, Defence, Transport and Communications</li> </ol>   |



**Photo 1.** Oil-combating vessels at work in the Sea of Åland in winter 2000. The wrecked and capsized m/v Janra is turned (Source: Finnish Environment Institute)

## 2.5 Improving oil-combating facilities

The prevention of hazardous substances getting into the water from new vessels will be stepped up considerably as from 2010, when new regulations on ship structures (e.g. double hulls) will enter into force.

Old vessels will continue to be in service, however, and that needs to be taken into consideration when coastal state's oil-combating facilities are being assessed.

Although current levels of monitoring and control of maritime traffic reduce the risk of accidents involving vessels, there is still a risk of serious oil spills, especially in the Gulf of Finland, which has developed into an oil transportation route of huge significance on the worldwide scale.

Right now a new, multifunctional vessel is being built for the naval forces that is designed to combat damage from oil and chemicals. In addition, oil combating facilities are to be developed in the next few years by means of cross-administrative solutions.

If such facilities are to be improved in the Gulf of Finland and the northern Baltic Sea, it is important that Estonia and Russia join Finland and Sweden in acquiring new oil-combating vessels.

Success in combat operations and prevention is also greatly dependent on weather, ice, water levels, wave and current observations and forecasts, as well as forecasts relating to oil slicks drifting and spreading.

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|------------------------|---|
| <b>Action:</b>         | <ol style="list-style-type: none"> <li>1. To promote national plans for developing oil-combating facilities and cooperation in this area. To promote the implementation of the aims in HELCOM's Baltic Sea Action Plan and HELCOM's recommendations.</li> <li>2. To aim to emphasise in all international contexts that all countries on the Baltic Sea should improve their oil-combating facilities to respond to the threats posed by increased oil transportation by acquiring for this purpose newly equipped oil-combating vessels and other equipment.</li> <li>3. To develop oil drift models to help prepare for oil-combating operations applicable to Finnish waters.</li> </ol> |
| <b>Timetable:</b>      | Ongoing   |
| <b>Responsibility:</b> | <ol style="list-style-type: none"> <li>1. -2. Ministries: <b>Environment</b>, Interior/Border Guard, Defence,</li> <li>3. Ministries: Environment, Transport and Communications</li> </ol>  |

## 2.6 Developing the investigation of accidents and the reporting of emergencies

Accident investigation in Finland is well established and national legislation is in harmony with the current IMO guidelines and the Community directives on the subject. IMO's new investigation code and the EU Directive on Accident Investigations will together standardise the investigation of accidents at sea internationally, but will mean slight amendments to Finnish law. Cooperation with Finland's neighbouring countries is viable in the main.

Emergencies are reported in accordance with a safety management system that operates between a vessel and the shipping company. In addition, the recording and reporting of emergencies in connection with the Vessel Traffic Service (VTS) and the obligatory Gulf of Finland reporting system, GOFREP, work well.

There is nevertheless clear scope for improvement in the reporting and analysis of emergencies and the spread of information, because these are not systematically organised when they originate from different sources. Providing information on emergencies is also very important for the development of human skills and working methods and for the prevention of accidents.

The aim of accident investigation and the reporting of emergencies is to develop a maritime safety culture that avoids blame and depends on the exchange of information. This work on safety and security and improving its impact is an ongoing process. There needs to be better dissemination of information to business and industry and feedback on action taken, so that resources can be channelled in the best possible way.

The impact of work undertaken to develop safety among different actors in the maritime sector might be improved if there were a forum of cooperation that represented the industry over a broad area and that met regularly. It could consist of representatives of shipping companies, professional organisations, various official bodies and training and research organisations all collaborating on issues of accident investigation and maritime safety.

The forum would allow the industry to be assessed in areas such as the information obtained from their reporting systems for emergencies and accident investigation, and the industry might provide information in matters to do with the improvements in maritime safety. The aim would be to systematically develop a maritime safety culture and actively collect feedback on the development of methods and practices in the industry, both in general and particularly with regard to perceived shortcomings in the area of safety.

|                        |   |
|------------------------|---|
| <b>Action:</b>         | <p><b>1.</b> To implement the legislative amendments required by the Directive on Accident Investigations and by the IMO's investigation code and to develop cooperation both internationally and at Baltic Sea region level.</p> <p><b>2.</b> In cooperation with Sweden and other Baltic Sea countries to develop reporting strategies for emergencies on the 'no blame or shame' principle, the systematic analysis of reports, the spread and utilisation of information in the prevention of accidents and in training courses for seamen.</p> <p><b>3.</b> To establish a forum of cooperation to make use of the information obtained from emergency reporting systems and accident investigation to improve maritime safety. Represented on the forum would be the maritime industry and key official bodies.</p> |
| <b>Timetable:</b>      | <p><b>1.</b> By the end of 2010</p> <p><b>2-3.</b> Ongoing</p>  |
| <b>Responsibility:</b> | <p><b>1.</b> Ministry of Justice</p> <p><b>2-3.</b> Ministries of Transport and Communications and of Justice</p>   |

## 2.7 Promoting research

Finland has some of the world's most highly developed skills and knowledge in research and development regarding shipbuilding and ship structures, the risks of maritime transport, winter navigation, and weather services.

By promoting research, new information could be acquired and new methods discovered to contribute towards the structural safety of vessels and their safe use and operations. This will have a long-term effect on maritime safety and on business conditions for the maritime and shipping industry in Finland.

|                        |  |
|------------------------|--|
| <b>Action:</b>         | To allocate national research funding to top-level research into maritime safety and to participate in EU research projects. |
| <b>Timetable:</b>      | Ongoing  |
| <b>Responsibility:</b> | Ministries: <b>Transport and Communications, Education, Employment and the Economy</b>                                       |

## 2.8 Developing cooperation on the monitoring of sea areas

The EU is involved in several projects to improve the monitoring of sea areas and vessel traffic. These include:

1. the further development of SafeSeaNet, the EU's information exchange system on the movement of commercial vessels and loads, maintained by the European Maritime Safety Agency (EMSA);
  2. the establishment of the EU LRIT (Long Range Identification and Tracking of Ships) Data Centre;
- and
3. the development of EUROSUR (European Border Surveillance System) as part of the European Union's integrated border security system.

The European Commission's Directorate-General for Maritime Affairs and Fisheries is seeking to develop solutions to achieve synergy and economic outcomes that cut across administrative sectors and Member States.

The European Defence Agency's MARSUR (Maritime Surveillance Networking) project is intended to help build a maritime surveillance network to cover the whole of Europe. All the maritime surveillance authorities with main responsibility would be part of it, as would the European Border Agency and the European Maritime Safety Agency.

|                        |  |
|------------------------|--|
| <b>Action:</b>         | <p><b>1.</b> To support the aim in the EU's maritime policy to create a common information exchange environment for the authorities all over Europe, including a common maritime traffic image. In this connection to actively participate in projects under way (MARSUR, EUROSUR, SAFESEANET) and to highlight the METO cooperation model between the Finnish maritime authorities (Border Guard, Finnish Maritime Administration, the naval forces). To pursue synergy benefits between official bodies through active participation in the Commission-funded forthcoming Baltic Sea project to be applied for in 2009.</p> <p><b>2.</b> To aim to extend information exchange between Finland and Sweden on situations at sea to all the countries on the Baltic Sea as a form of comprehensive situational awareness cooperation (SUCBAS, Sea Surveillance Cooperation Baltic Sea). All relevant maritime authorities will be urged to commit to this form of cooperation.</p> |
| <b>Timetable:</b>      | Ongoing  |
| <b>Responsibility:</b> | Ministries: Defence, Interior/Border Guard, Transport and Communications where relevant to each  |

## THE PROGRAMME: READING, IMPLEMENTATION AND FOLLOW-UP

It has been agreed that the drafting of the Baltic Sea Maritime Safety Programme will coincide with, and aid, the preparation of the Baltic Sea report to the Finnish Parliament and with the process of influencing the preparation of the EU's Baltic Sea strategy.

The Baltic Sea Maritime Safety Programme will be read and debated by the Government in March.

The Programme will be implemented in such a way that each responsible ministry takes account of the Programme in planning the work and finances of its administrative sector and in the setting of targets. The Programme will be implemented primarily within the framework of the budgetary funds and framework for each ministry's administrative sector.

The Programme's implementation will be monitored at Government level and in connection with normal reports on results.