

Contribution by HELCOM to the annual report of the Secretary-General on Oceans and the Law of the Sea, chapter on maritime security, 2007 November 2007

In 2005 the Baltic Coastal States and the EU decided to develop a HELCOM Baltic Sea Action Plan to serve as the major tool for applying the ecosystem approach to managing human activities impacting on the Baltic Sea.

The HELCOM Baltic Sea Action Plan (BSAP) is currently being finalized and is due to be adopted by the HELCOM ministers' meeting on 15 November 2007.

The Action Plan covers all four priority areas of HELCOM: eutrophication, hazardous substances, biodiversity and maritime activities. The Maritime Activities segment of the BSAP also contains proposals for additional actions related to maritime security and safety.

1. The Baltic Sea is one of the most intensely trafficked maritime areas in the world. Both the numbers and the sizes of ships have been growing in recent years, especially with tankers.

There are around 2000 AIS-equipped ships at sea in the Baltic at any given time, accounting for 15% of the world's cargo transportation.

The whole Baltic Sea area has been covered by shore-based AIS stations since mid-2005. HELCOM AIS information is stored in a dedicated server and is widely used for generation of shipping statistics, analysis of shipping patterns, evaluation of the environmental impact of shipping and creation of specific tools to monitor the enforcement of international legislation in the Baltic Sea area.

2. The AIS information exchange capacity is limited and IMO administers the content of the AIS messages to avoid overloading of the AIS frequencies. The HELCOM countries are planning to have a joint submission to IMO in 2008 on the necessary modification of AIS information content in order to better serve maritime safety, security and environmental protection as well as ships. The joint submission will be based on the results of the testing of AIS binary message exchange and the evaluation of AIS message information content within the Baltic AIS trial project to ensure that these messages reflect the information needs of users.
3. Monitoring the enforcement of international rules by ships is being strengthened by making a fuller use of the HELCOM AIS. Two examples of such a use are Seatrack Web/AIS and the system for detection of specific types of vessels entering the HELCOM area. These systems are being used by the relevant authorities in the Baltic Sea countries on a daily basis and will be further developed.

The Seatrack Web/AIS is an oil drift forecasting system integrated with information from the HELCOM AIS. After an oil spill has been detected, a data archiving simulation is performed by STW. Based on a time window and an area of interest, a database query is sent to an AIS database server. Ships' tracks that match the query are extracted from the database, and subsequently plotted together with the oil spill backtracking trajectory in the Seatrack Web application, leading to the narrowing of the number of ships suspected of discharging oil.

The STW/AIS increases the chances of identifying illegal polluters and provides better evidence for the courts. The trial is currently being further developed in order to improve the AIS functionality and to integrate satellite imagery information.

The second system has been developed within the project by HELCOM and the European Maritime Safety Agency (EMSA) of EU on monitoring the banning of carriage of heavy grade oil in single hull tankers. The objective of the project is to monitor compliance with the provisions of the amended Annex I of the MARPOL 73/78 Convention and Regulation (EC) No. 1726/2003, regarding banning the carriage of heavy oil in single hull tankers, which entered into force as from 3 April 2005.

Monitoring is carried out by exploiting the national and regional traffic monitoring systems of the Baltic Sea countries and EMSA database systems as well as the Paris Memorandum of Understanding Secretariat list of banned vessels by the HELCOM AIS. There are plans to extend the pilot project to monitor other specific categories of vessels entering the HELCOM area, e.g. vessels detained under the 1982 Paris Memorandum of Understanding. In future, also ships non-compliant with the 2001 International Convention on the Control of Harmful Anti-fouling Systems on Ships could be monitored. Following on the experience gained in the HELCOM, similar initiatives may also be implemented in other maritime areas.

4. In 2007, following arrangements with the European Maritime Safety Agency, satellite surveillance of the Baltic Sea has been extended with the aim of improving detection of illegal oil spills. The satellite service is provided to the HELCOM countries by the EMSA's CleanSeaNet. Satellite images indicate "candidates" for oil spills at sea, which can be further on confirmed on location by a vessel or aircraft of the country concerned. The satellite surveillance has been harmonized with HELCOM's aerial surveillance.
5. An important part of HELCOM's continuous activity is collection and analysis of statistics on shipping accidents involving over 1000 tons ships over 400 GT in the Baltic Sea. The conclusions which can be drawn from the statistics are used for formulation of new measures to increase maritime safety.

The number of reported shipping accidents in the Baltic Sea is high – every year approximately 120-140 accidents take place. Most of them do not cause pollution of the marine environment. According to the 2000-2006 data, 7% of the reported accidents resulted in some kind of pollution. In 2006 this percentage was lower (4%), with five pollution accidents reported by the Contracting Parties. Two major pollution accidents have taken place in the Baltic recently in 2004 and 2006.

Collisions are the most common type of accidents in the Baltic, followed by groundings. The main cause of accidents is human factor, followed by technical factor.

6. Some areas of the Baltic Sea are ice covered for several winter months, which places some limitations on maritime transportation and entails greater risks of accidents and pollution. Having in mind the increasing transportation of oil products in the Baltic as well as difficulties in responding to oil spills in ice conditions, co-operation between HELCOM and the Baltic Icebreaking Management, an organisation consisting of icebreaking authorities from all Baltic Sea countries, will be enhanced. The co-operation will be based on a new HELCOM Recommendation aiming at, e.g., a more effective use of icebreaking resources by managing the service at a sub-regional

level and improving emergency response capacity. Progress towards training in ice navigation. Use of voluntary pilotage for winter navigation will be further encouraged.

7. IMO has already agreed on an Electronic Chart Display and Information System (ECDIS) carriage requirement for High Speed Craft (HSC), effective from July 2008. However, a time schedule for a general ECDIS carriage requirement does not exist yet and the HELCOM countries will work within IMO towards speeding up the introduction of such a requirement as early as possible in order to decrease the number of groundings. Use of ECDIS is related to the current coverage with official Electronic Navigational Charts (ENCs). In the Baltic, all major and secondary shipping routes have already been covered with ENCs.

8. It has been recognized within HELCOM that the most efficient way to establish an adequate response capability, also in financial terms, is to build up capacity on a sub-regional level. A "three tier" approach is applied by HELCOM, which states that minor oil spills should be tackled efficiently by a single Contracting Party, it should be possible to address spills of a medium size by well-organized and timely action by several neighboring Contracting Parties, and in case of larger oil spills all Contracting Parties should be involved.

Much has been done to build up an adequate emergency capacity and to prevent pollution by addressing incidents at a very early stage. Around 30 emergency tugs with bollard pull of 50 or more tonnes are located around the Baltic. Moreover, several emergency assistance vessels are to be built in coming years. Most of the Contracting Parties have mechanisms to involve commercial emergency resources in case of an urgent need.

A new HELCOM Recommendation "Strengthening of sub-regional co-operation in response field" will provide for a step-wise approach to increase the efficiency of response capability by the Baltic Sea countries. The focus is on achieving full preparedness to medium-size oil spills, i.e. the spills affecting and requiring response from more than one country. To implement the Recommendation, the HELCOM Contracting Parties will:

- by 2008 - develop a common methodology for the assessment of risk and sufficiency of response capacity;
- by 2009 - finalise assessments of risk of oil and chemical pollution at the sub-regional level;
- by 2010 - identify gaps in emergency and response resources needed to meet the risk and prepare concrete programs to fill them in;
- by 2013 - put in place a sufficient emergency and response capacity (by 2010 for emergency towing and accidents involving chemicals).

9. Exercising is a key to efficient response operations at sea. Several kinds of exercises are conducted under the HELCOM flag. The most famous one is the BALEX DELTA, which tests the alarm procedures and response capability of the Contracting Parties in case of a major accident and an international response operation. BALEX DELTA exercises take place each year and are hosted by the Contracting Parties according to an agreed schedule. In 2007, BALEX DELTA took place in Tallinn, Estonia, with participation of 17 vessels from six countries and EMSA.