

HELCOM - and oil handling in the Baltic Sea.

Development in the nineties.

Export of oil is a major source of income for Russia. The Russian part of the world production is around 10%. In comparison the OPEC countries produce around 40 %. In the year 2000, the total oil handling in the Baltic Sea was more than 160 Million tons and had doubled during the nineties. Also the size of the oil tankers has increased immensely. The average tonnage for some harbours has doubled in a few years. Tankers up to more than 100 000 tons is a daily sight and the new terminals are constructed to receive tankers up to 150 000 tons.

Further development.

Prognostications up to 2015 indicate a further strong increase of the oil handling, another 40% is estimated. Economical reasons promote to the use of Baltic Sea maximum size tankers (100 000-150 000), as the cost per ton of transported oil decreases considerably by using large tankers.

Oil drilling is so far only a minor thing in the Baltic Sea, but will increase, especially if the price continues to be on a high level.

Risks

The developing oil handling during the nineties has brought serious problems to the area. One of them was the number of “substandard ships”, old ships and insufficiently maintained, sometimes unclear ownership due to having changed several times, not the best of crews and sometimes even lacking sea-charts and modern navigational aids.

Not only the ownership of the tanker sometimes appears to be unclear, but also the ownership of the oil cargo. The more unclear these things are, the higher is the likelihood that a substandard ship will be used for the transportation.

Winter conditions in the Baltic Sea can be quite hard, with a lot of ice in the Gulf of Finland and the Gulf of Bothnia. Most oil-tankers lack sufficient ice-classification but they still go there. Before last winter, there were some narrow escapes with tankers that got stuck in the ice and also some collisions. Hopefully

some agreements have now more or less solved that problem, but last winter was quite mild so the willingness to live up to the commitments has not been really tried.

Also I think that some tanker or cargo owners got “cold feet” and were not too happy about the “bad will” they had by having ships or cargoes involved in such situations.

The increasing sea traffic in general, especially with many substandard ships, brings a higher risk for collisions and grounding.

If also the size of the ships increase, the risks for major oil spills gets higher. A large bulk or container ship carries as much bunker oil as a small coastal tanker. The Fu Shan Hai, a bulk carrier, which collided and sank in the southern Baltic had around 1800 tons of fuel and lubrication oils in her tanks. Recovery of such volumes is however possible to handle.

The rapidly growing size of the oil tankers brings on other types of risks that can not be met only with increasing the oil recovery capacity. A collision or grounding of an average coastal tanker might have a potential of up to 5000 tons of oil, a total loss could mean around 10 000 tons. A lot of oil, but still possible to recover at sea, if the weather and the international co-operation is good.

A collision or severe grounding of a 100 000 tons tanker could result in a discharge of 20 000-30 000 tons, and a total loss could mean a discharge of maybe 50 000 –70 000 tons and the rest remaining in leaking tanks on the sea bed. The ERIKA and the PRESTIGE incidents were of that magnitude and we all know the consequences. They had both taken their oil from Baltic Sea terminals.

The intensive sea traffic also brings a high number of illegal oil spills. Most of them with a volume less than 1 m³, but nevertheless causing harm to the sensible fauna and to the food chains. The abundance of species in these brackish waters is only a tenth of that in the oceans, and it takes around 30 years to change the water of the Baltic Sea.

THE HELSINKI COMMISSION (HELCOM)

“The Helsinki Convention on the protection of the marine environment of the Baltic Sea area” includes all the Baltic sea States and EU. It comprises all kinds of pollution of the sea and the seabed, not only emanating from maritime activities but also coming from the whole catchment area, eventually into the Baltic Sea.

The work is co-ordinated and headed by the Helsinki Commission, with some 15 full time employees, but the work is also carried out by five committees. Those of main interest for actions against oil spills are Helcom Maritime and Helcom Response. The groups work close together but in principal Helcom Maritime aims at prevention and Helcom Response at response to incidents.

What have we done so far?

Since many years there is a 24-hours network for response co-operation. The Operative Manual for this provides all needed in beforehand for efficient co-operation, like

- alarm routines,
- contact points,
- command structures,
- radio schemes within the response fleet,
- customs matters and
- reimbursement regulations.

With this, the more than thirty response ships from the different Baltic sea states, which make the “Helcom Fleet”, can be used in an efficient way. In order to keep the fleet fit for fight there are regular alarm and equipment exercises. These exercises are conducted in different parts of the Baltic Sea in order to ascertain that the crews are familiar with navigational and other conditions, but very important is also to ascertain that each party is able to command and control an operation with a lot of ships involved, and that they can do it in English.

Besides the Operative Manual, Helcom works through Recommendations. A Recommendation is a “soft law” which the parties have agreed to implement in their national regulations. They deal with several things, e.g. the use of dispersants, national ability to respond, the use of oil drift forecasting, aerial surveillance, but also with administrative matters like reimbursement of costs.

There is also a common system for oil drift forecasting, the Sea Track Web, covering the Baltic Sea as a whole, which has been of great value during incidents but which also has been used for so called backtracking, in order to find possible illegal polluters.

In the year 2000 the so called “Baltic Strategy” entered into force aiming at reducing the illegal oil spills by providing more and better working reception facilities in the ports. There is a mandatory fee for delivery, regardless if you deliver or not, and it is obligatory to deliver before leaving a port. The port should also check that a calling ship has residues on board, and if it corresponds to the length of its journey, and that it has a document confirming that it has left its residues in the last port. The system is estimated to have contributed to the decreasing figures for illegal oil spills at sea, but there is still a lot to do in order to make it work a hundred percent.

In some matters the Helcom work has been a trigger for EU, what has started within the Baltic Sea has later been considered for implementation in EU as a

whole. On the other hand, EU has contributed to the process within Helcom, in matters of great importance for a safer sea traffic in the Baltic Sea.

What is Helcom doing for the time being?

Helcom Copenhagen declaration

A lot of the ongoing work has its basis in the “Helcom Copenhagen Declaration,2001” where a comprehensive program for safer navigation and response was adopted.

The declaration comprises i.a.

- Routeing measures for certain parts of the Baltic Sea,
- Enhancing the use of pilots
- Re-surveying of major shipping routes and ports
- Ensure ENC coverage of major shipping routes and ports
- Enhance the use of ECDIS
- Intensify Port State Control (PSC) of paper charts onboard i.a. tankers
- Enhance the use of AIS and
- Ascertain the availability of emergency capacity, response capacity and places of refuge.

Furthermore the phasing out of single hull tankers should be prioritised, and also in taking steps to become full members to the Paris MOU on PSC for those states who are not. Also co-operation in shoreline clean up and the application for the Baltic Sea as a PSSA were on the list ,but could not be elaborated, because of the disagreement from one party, at a late stage.

MARIS

The draft Maritime Accident Response Information System(MARIS) is now introduced, consisting mainly of a number of datasets, describing

- the areas most sensitive and vulnerable to oil spills
- the traffic and risk distribution
- available response resources

The purpose of MARIS is to visualize the risks of maritime transportation in the Baltic Sea and the capacity to handle these risks. Some datasets e.g. sea charts, shore types, traffic and risk data ,are still missing but will be included at a later stage.

Further development of drift modelling

By using the available comprehensive meteorological and oceanographic information about the Baltic sea, regarding winds, temperature and currents, it is possible to make thousands of oil drift simulations, thus finding out where an oil spill probably will end up, but also where the likelihood is small. Also changes

of the mass balance of the oil can be calculated, all this giving us a background for decisions on alertness, need for aerial surveillance, exercises and for co-operation.

Illegal discharges

As mentioned, the illegal discharges are a matter of great concern for the Baltic Sea. Sweden has set up a national aim to get rid of the illegal oil spills by 2010. In other countries the situation is more unclear. Organisational, but above all, economical constrains make the situation unsatisfactory, sometimes not even surveyable.

Lack of aerial surveillance and unsatisfactory remote sensing equipment, make our statistics for the Baltic Sea as a whole uncertain. Some countries, have very reliable statistics, other rarely fly at all. This means that the noticed considerable reduction in some parts of the Baltic Sea, could not be taken as a guarantee for a reduction as a whole. It could mean that the polluters, at least partly, have chosen areas of less risk for making the discharges. Hopefully further co-operation in aerial surveillance and the use of satellites can help us on this.

However the situation is not dark all over. Since many years the parties of Helcom make co-ordinated, aerial surveillance operations over a certain sea area, where planes and ships from a number of parties take part. The aim is to catch the polluters red-handed, and that happens from time to time. Being hung out in mass-media for an illegal discharge and being taken to court is not what a ship-owner or a captain likes, so the effect of deterrence is quite high and has contributed to at least breaking the up-going trend in oil spills, and in some parts to a considerable decrease.

Since a few years there is also a network of prosecutors from the different parties in order to improve the international co-operation on law enforcement.

Denmark, “the door keeper” to the Baltic Sea, has since a few years applied a hailing procedure, in which ships are called on channel 16, and asked about their callsign, port of call and other questions but also reminded about the Baltic Sea as a MARPOL Special area, where no oil discharges are permitted.

This hailing procedure is for the time being also considered for other areas of the Baltic Sea. Of course, one has to bear in mind, that most seafarers are honest people, entitled to freedom of navigation without being addressed by any unnecessary activities from the coastal state.

Other activities

Helcom Maritime and Helcom response also deal with a lot of other questions concerning the Baltic Sea. One example is the war gas on the seabed in some areas, dumped there after the Second World War, still being a threat to the fishermen. Other matters are bunkering at sea, oil platforms and wind plants at sea.

What more can be done?

Shipping is international so the work has to be long term. The conditions for shipping have to be global and only in certain circumstances should there be regional restrictions. At first hand, we should work for the fact that already existing regulations are respected, for example the MARPOL annex 1 and 2. If that can be achieved, there would be less need for more regulations. I am also quite sure that STCW and ISM will contribute to a cleaner Baltic Sea, like the Baltic Strategy. Some questions, like not using or phasing out of the single hull tankers takes time, although progress in speeding up the process has been made lately within the EU. In this field some pressure from the public could also be applied, e.g. not buying oil or other things having been transported in sub standard ships.

The designation of the Baltic Sea as a PSSA will also enhance the awareness of the sensibility of this rare brackish water.

There is however a simple but good leading star for our future work;

Oil should always travel first class, meaning:

- first class flag states
- first class ship owners and cargo owners
- first class ships
- first class crews
- first class terminals
- first class routes and
- first class response to incidents