

On the Marine Oil Transportation and Terminal Development in the Gulf of Finland

by Jorma Rytönen

The Baltic Sea, the largest brackish body of water in the world, has always been an important sea route connecting the Nordic countries and Russia to continental Europe. Surrounded by nine countries, it also has some of the densest maritime traffic in the world. The Baltic Sea is also a European inland sea and important fairway between the European Union and Russia. The financial importance of this is significant. The strong economic development of trade in the Baltic Sea area is also reflected in the development of shipping. Consequently, when economies strengthen and trade increases, it is important that shipping and the transport system in general are not restricted by various barriers, bottlenecks and certain institutional differences. Trade development, however, is leaning towards general standards with harmonized tools and legislation

Rapid development of the oil transport - Gulf of Finland in focus

The disintegration of the Soviet Union forced Russia to start developing its own Baltic ports and terminals and to find new routes to export its oil. The Baltic States have enjoyed a remarkable economic boom, especially regarding new port and terminal development and oil transportation.

In 2000 the total amount of oil transported on the Gulf of Finland area alone was 40 million tons, in 2004 about 100 million tons and may reach 190 million tons by 2010. Russia is now the largest oil producer in the world, and the high market price of oil also puts more pressure on Russian plans to bring more oil into the world markets. Thus the development of the marine oil transport and development has been especially busy in Russia and Baltic States.

There are a lot of new oil terminal and development projects going on in the Russian Ports of the Baltic Sea. The largest oil terminal in the area is the Primorsk oil terminal which last year accounted for roughly 40 million tons alone. Together with crude oil export, the oil product transportation will soon commence, and the capacity in the future may achieve an annual level of 60 - 80 million tons. Other large scale terminals are Vysotsk, St. Petersburg's oil terminal and Ust Lugas's port area, including Vistino.

Finland's largest oil terminal in the Gulf of Finland area is Sköldvik, near the city of Porvoo. Its annual oil transportation varies between 15 - 16 million tons, but is expected to grow to 18 - 20 million tons in the future. Some amount of oil has been also transported through the ports of Kotka and Hamina as transit.

Estonia's largest oil terminal is the port of Muuga, situated close to Tallinn. It handled around 25 million tons of oil in 2004. Other main ports handling oil products are Paldiski, Paljassaare, and Miiduranna. However, there are new ports under construction, such as Aseri and Sillamae, which may have a significant oil transportation role in the future.

As traffic volumes on the Gulf of Finland seem to continue and rise rapidly, the risk of accidents is increasing accordingly. In three years' time the total number of ship calls will have more than doubled in the main oil harbours in the Gulf. Some positive developments can be noticed in the tankers that visited the Sköldvik, Primorsk, St. Petersburg and Tallinn

oil terminals in May 2004 when comparing the data in 2001: new vessels have been taken into use, and the tankers' age development has also had a positive effect on the vessels' structure as well. These are good signs of an increase in safety consciousness in oil transportation.

How to minimise the risk?

One fact covering recent decades has been the significant improvement of maritime safety. There are many reasons affecting this positive development. Many of these reasons are based on past accidents such as the "Erika", "Prestige" or "Baltic Carrier". Also new actions against terrorism, such as the ISPS code and new mandatory regulations in ports have improved general safety. However, even if the parts of internal or external safety are taken care of, there are still the human-machine interaction and the environmental issues left as a parts of the total safety concept. Here we have the most promising field to work with, due to the simple truth that human-related accidents represent around 80 % of the total amount of accidents.

In April 2004 the International Maritime Organisation (IMO) nominated the Baltic Sea, except for the Russian territorial waters, a Particular Sensitive Sea Area, PSSA. This is a direct signal to seafarers to take into account the Baltic Sea's vulnerable environment. An especially sensitive part of the Baltic Sea is the Gulf of Finland, which is shallow and surrounded by a broken coastline of bays and islands, and which is partly covered by ice in wintertime.

In recent years the Gulf countries have taken several steps to improve safety. An example of recent measures is the Gulf of Finland mandatory Ship Reporting System (GOF-REP) which came into operation in July 2004. The system was established to improve maritime safety, to protect the marine environment, and to monitor compliance with the International Regulations for Preventing Collisions at Sea.

Nevertheless, no system, no regulation, nor double-hulled tankers can totally eliminate the risk of accidents. Due to the fact that maritime transport, and especially oil transport, is increasing dynamically, the most important task would be to identify the environmental risks and then to proceed systematically to decrease hazards and any negative impacts on nature.

Jorma Rytönen

VTT Industrial Systems / Maritime Operations and Environment, Finland

e-mail: jorma.rytonen@vtt.fi

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The writer works for the VTT Industrial Systems as a group manager in charge of Maritime Operations, Safety and Environment related research activities at VTT. Currently he is working in St. Petersburg in Russia in a EU-funded research project in order to identify the risks of maritime transportation and to enhance safety, together with Russian experts.