

WINTER NAVIGATION RISKS AND OIL CONTINGENCY PLAN



WINOIL –

Faster cross-border procedures are needed for joint operations

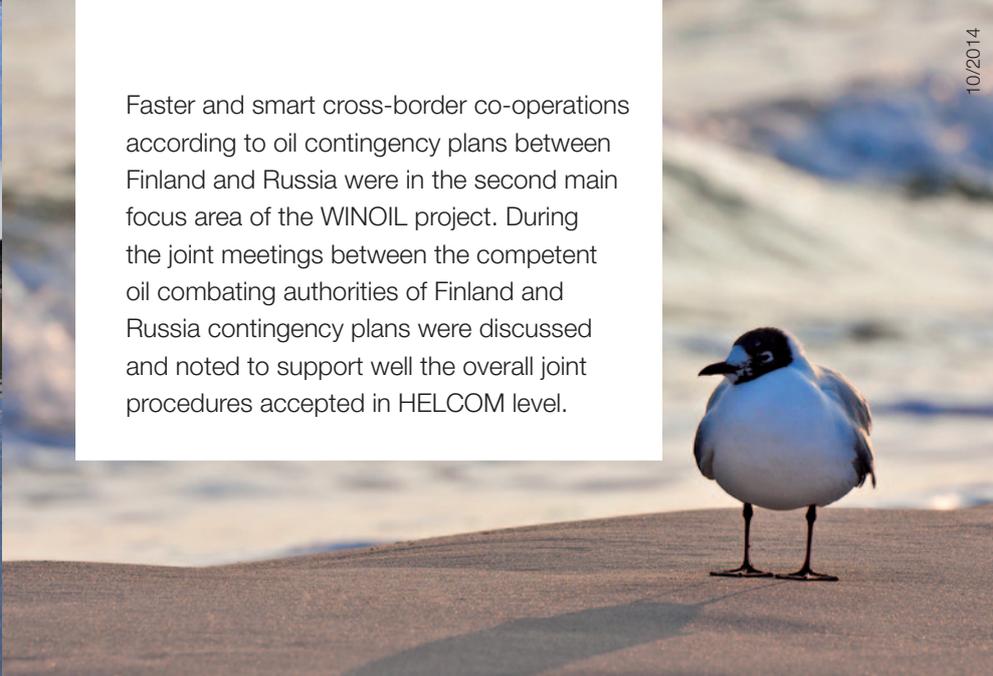
In case of large scale accident and oil spill (e.g. 30.000 m³) in the eastern part of the Gulf of Finland (GoF) smart and fast countermeasures are requested on national/international level, including activities cross-border. An expanding large oil spill drifting towards the areas where endangered species live and shores with high valuable economic objects would in many cases be a cross-border problem that requires to be solved by co-operative cross-border operations.



WINOIL makes such an approach that supports decision-making concerning risk reducing measures for winter navigation in the GoF, focusing on accident prevention and response. A risk model was structured based on the steps and guidance provided in the Formal Safety Assessment (FSA) by the International Maritime Organization (IMO). It was developed considering risks of having potential oil spills derived from accidents in the analyzed operations.



The WINOIL risk models enable integrating, traffic and ice conditions of the zone, accident statistics analysis, vessel maneuvering, and the influence of the human error for determining the risk of collisions during winter navigation. It attempts to integrate a coherent assessment on the influence of various proposed Risk Control Options (RCOs) for reducing the risks associated to the development of winter navigation operations. Several novelties, e.g. combination of engineering model, HRA, detailed AIS analysis plus some statistics resulted. Improving navigational training and safety management system (SMS), as well as e-Navigation support were found to be the most influential RCOs in winter navigation cross the border.



Faster and smart cross-border co-operations according to oil contingency plans between Finland and Russia were in the second main focus area of the WINOIL project. During the joint meetings between the competent oil combating authorities of Finland and Russia contingency plans were discussed and noted to support well the overall joint procedures accepted in HELCOM level.

To develop such pre-planned activities between Finland and Russia, WINOIL defined two main proposals to be discussed through the HELCOM co-operation:

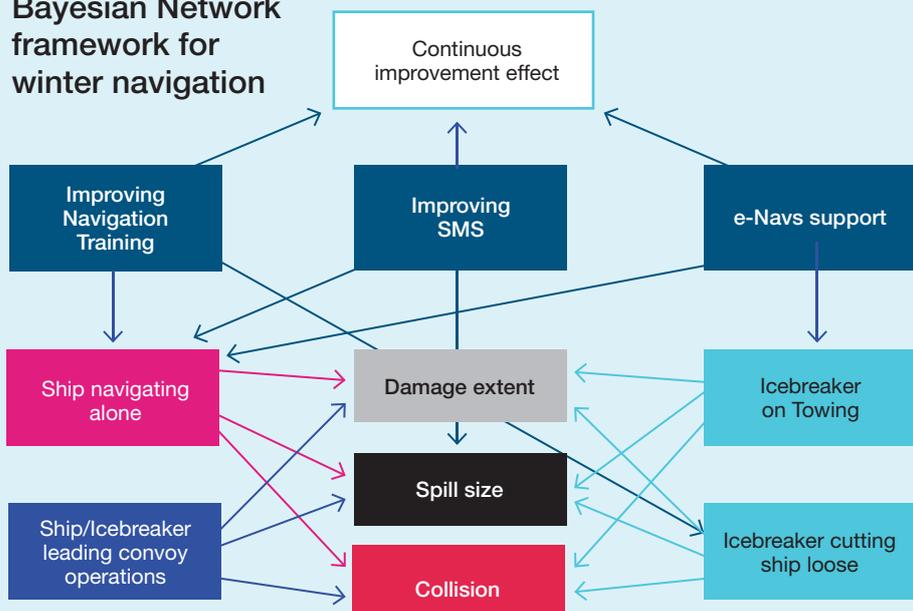
- 1 The oil spill response vessels designated to take part in international assistance of the HELCOM member states should have a permanent diplomatic clearance to cross borders in the Baltic Sea in case of the request of assistance of the competent authority.
- 2 Any contracting party should have at least 15 kilometers of high sea oil booms and be able to mobilize the booms with at least 30 appropriate tugs during 24 hours.



Sensitive areas of the Gulf of Finland in the wintertime. The approach made was unique, made first time on the Russian side in the Gulf of Finland area to understand the possible environmental concern related to oil spill in the winter time cross-border.

Certain species of waterfowl, seals and other target species were identified in the area to have a special concern in the case of an oil spill in the winter time. The analyses supports well the overall mapping of HELCOM and gives new approach to evaluate the pollution impacts in winter.

Bayesian Network framework for winter navigation



Thus, WINOIL is focused on the risk of oil spill in winter navigation, and contributes both in prevention and preparedness utilizing the cross-border approach, co-operation and risk management as a solution.

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