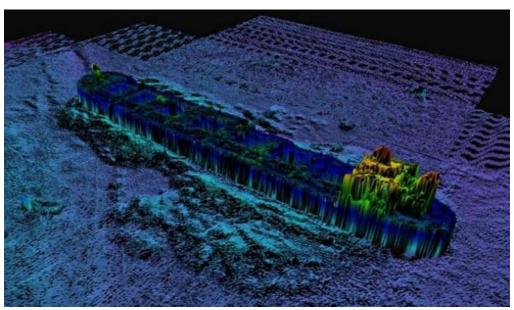
# Wreck Seminar 29.-30.11.2017 Round Table Discussion

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Photo: Andreas Osula

- Lessons learned earlier oil removal operations made solely by own
- supported by Navy, Frontier Guard and contracted parties
   liability stays by us!
- Has been excellent opportunity for training, please note also against odds......
- Confirming experienced personnel in the case enough cases >< lack of money?</li>
- Future: It is foreseen more and more works will be carried out by the third parties, i.e. "the private service providers" how to confirm the status quo and understanding what is really needed? (Note: "the Exxon Waldez"-syndrome here)
- Fu Shan Hai, Runner 4.







# THE EQUIPMENT







#### THE RESULT



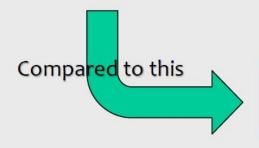


Dirty water recovered

620 m<sup>3</sup>

Oil recovered

 $251 \,\mathrm{m}^3 = 249 \,\mathrm{ts}$ .

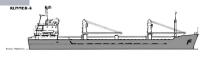


Missing 335 tonnes

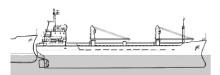
Operation lasted 50 days

DK government pays the bill.

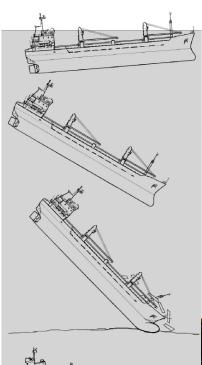




#### **RUNNER 4 HUKKUMINE**



Jääkanalis peatunud Runner 4-le sõidab tagant otsa karavanis taga liikunud laev. Kokkupõrke tagajärjel puruneb ahtri alaosa ja vesi tungib masinaruumi.



Laev upub ahter ees.

Hetkest, kui uppuv ahtriosa laeva vee alla veab, algab trümmi kiire veega täitumine. Veega täitunud trümm koos metallilaadungiga on oluliselt raskem kui veel mitte täielikult uputatud ruumidega roolimaja ning vöör laskub järsult alla.

Vöör põrkub kõvale kaljupõhjale ja deformeerub. Samal ajal ei pea trümmiluuke hoidvad ketid vastu ja luukidest koosnev rong kihutab alla vööri suunas murdes eesoleva ventilisatsioonimasti ja puistates osa luuke laeva ette põhjale.



- There is no extra funding available for sunken wreck salvage operations –
- Another problem is the lack of resources to support the preventive measures:
  - no wreck programme (see Swedish decision)
  - no surveying programme SYKE has R&D initiatives for Finland – how about the whole Baltic area?
  - Portal development is there a need for Baltic PortalHelcom ? Joint Sharepoint ?
  - Gradual oil leakage Sudden release (corrosion, external impact)

- Baltic Sea Approach
- Shallow and narrow waters
- Oil drifting in a coupla of days to shore
- GoF area a lot of objects having the potential for oil pollution – Wreck Oil Compensation Fund perhaps needed to support wreck salvage & oil removal operations
- Other aspects: trawling nets traps for fish and mammals
- Dangerous goods onboard
- Munitions danger for divers, danger for salvage operations
- Need to identify responsible authorities per country –
   (example: see Frederik Lindgren's presentation) lessons
   learned in Baltic /Submerged Group..

- Practical Cases:
- A.)free exit to old wrecks penetration to the wreck hull – air bubbles may increase corrosion
- B) munitions if free exit and explosion danger loose human life and cause severe oil spill
- C.) positive side: open, transparent data transferr between the parties – oil early warning etc.....

- Wreck Position
- National waters EEC waters

- High costs possibility to share costs?
   Foundation? Legislation?
- Related to fairway dredging, pipeline/cable lying etc....

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The drilling barge capsized in the beginning of this week. SYKE's oil recovery team is securing the site against any oil leakage while salvor, owner and the insurance company have negotiations going on how to proceed. Fig. Taken 29.11. by Esa Siermala /Ely-Keskus