

TECHNICAL REQUIREMENTS FOR YEAR-ROUND BALTIC SEA TANKER TRAFFIC

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Germanischer Lloyd

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THE BALTIC SEA

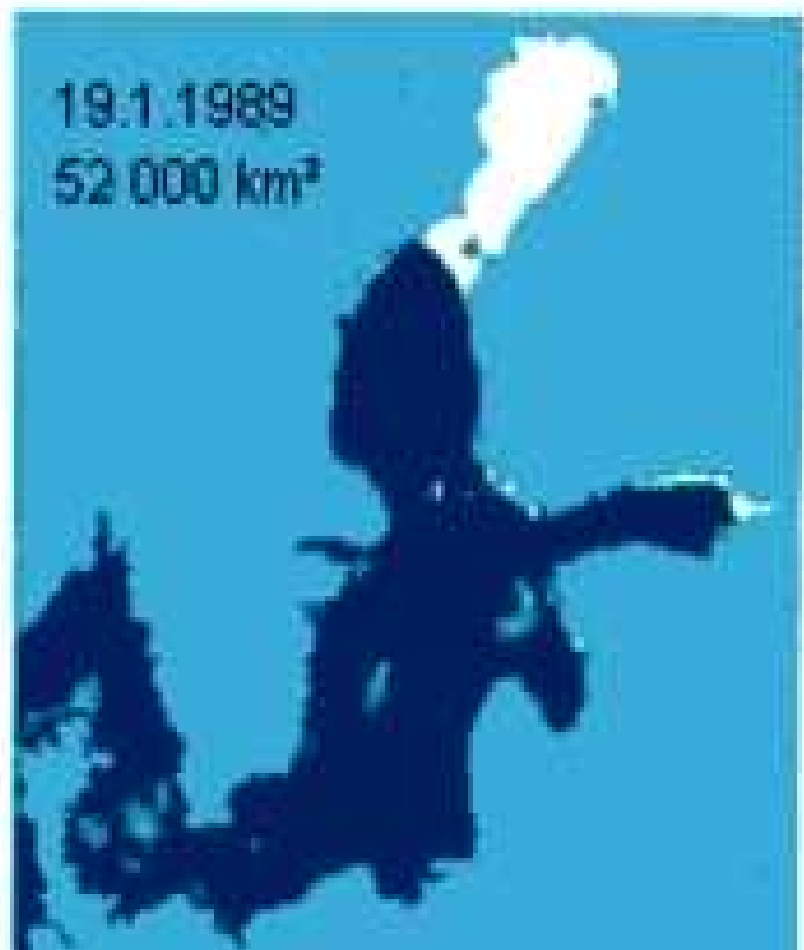


- isolated
- 422 000 km² in area
- shallow, 60 m in average depth, 450 m deepest point
- brackish water, salinity 0 – 2.0 ‰
- no tide
- weak currents
- status of special sea area from IMO

ICE WINTER AT THE BALTIC SEA

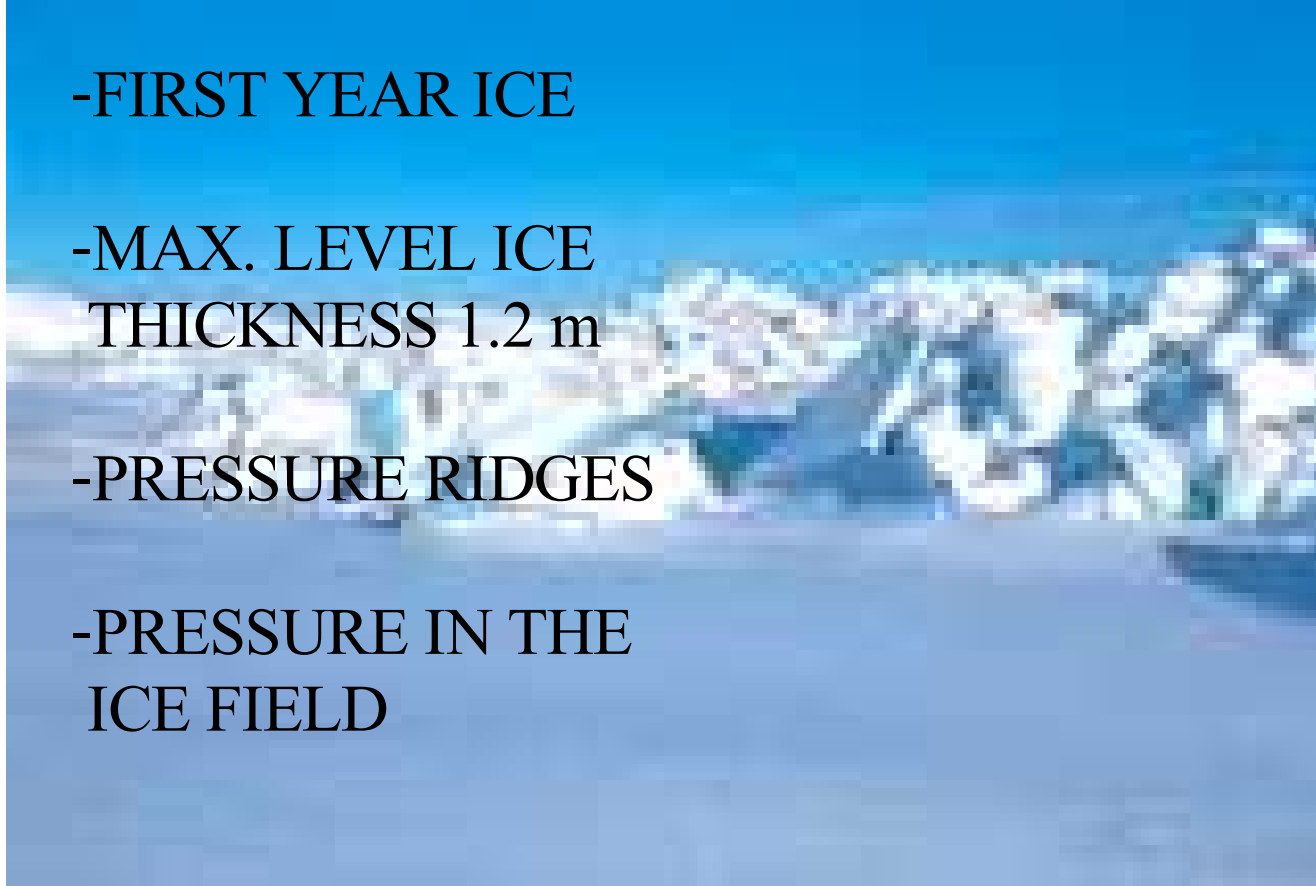
- SUB-ARCTIC
- DURATION OF THE ICE SEASON FROM ZERO TO SIX MONTHS PER YEAR; NORMALLY FROM NOVEMBER/DECEMBER TO MAY IN NORTH
- MAXIMUM EXTEND OF ICE COVER NORMALLY IN MARCH
- MAXIMUM EXTEND OF ICE COVER VARIES BUT CAN BE MORE THAN 405000 km²

ICE WINTER AT THE BALTIC SEA



ICE CONDITIONS AT THE BALTIC SEA

- FIRST YEAR ICE
- MAX. LEVEL ICE THICKNESS 1.2 m
- PRESSURE RIDGES
- PRESSURE IN THE ICE FIELD



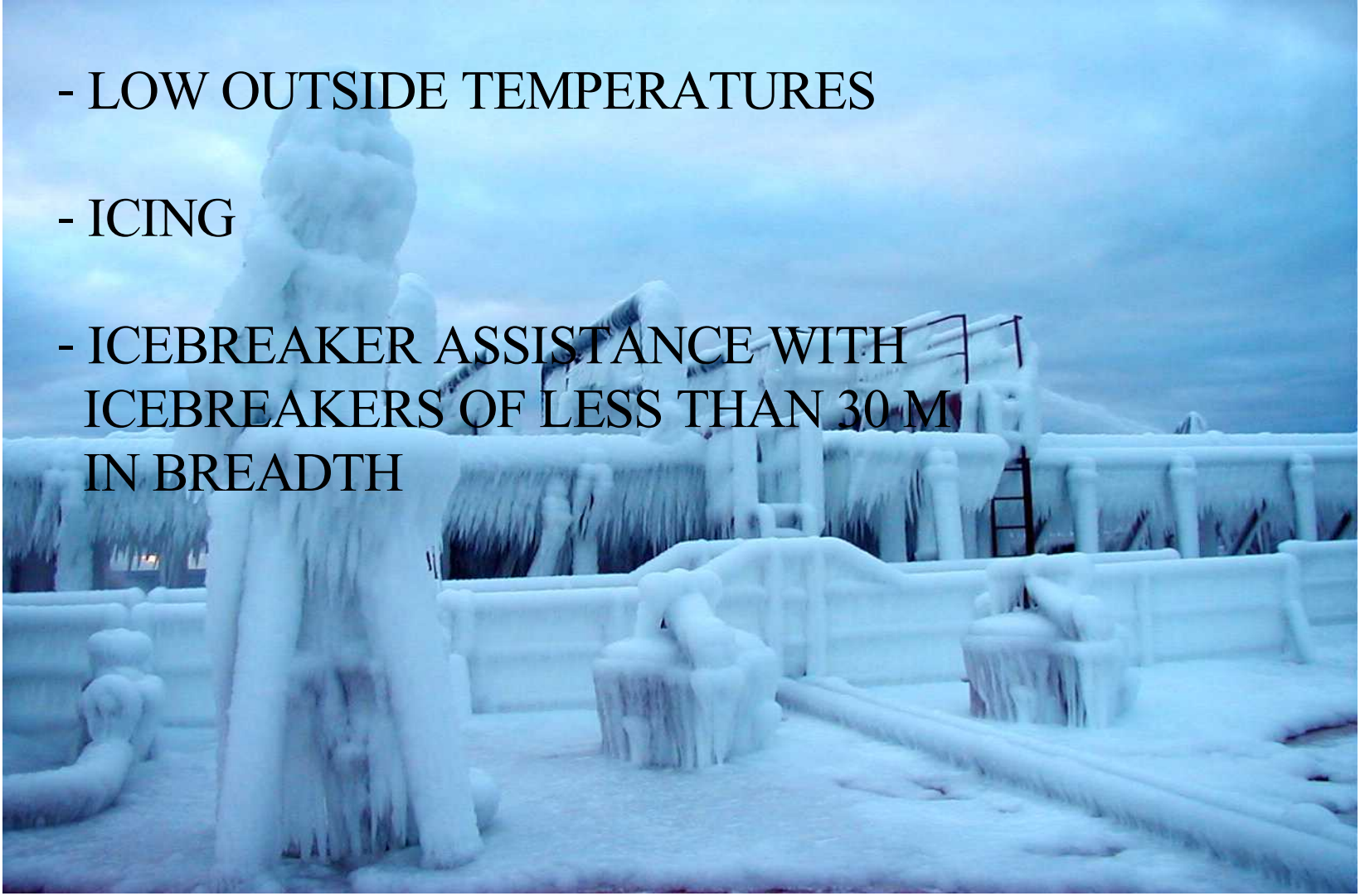
TECHNICAL REQUIREMENTS FOR TANKERS

- ICE STRENGTHENING NEEDED
- TRAFFIC RESTRICTIONS ON THE BASIS OF THE ICE STRENGTHENING OF THE VESSELS
- FOR THE BAY OF BOTHNIA AND THE GULF OF FINLAND SUFFICIENT FSICR ICE CLASS IS IA OR BETTER

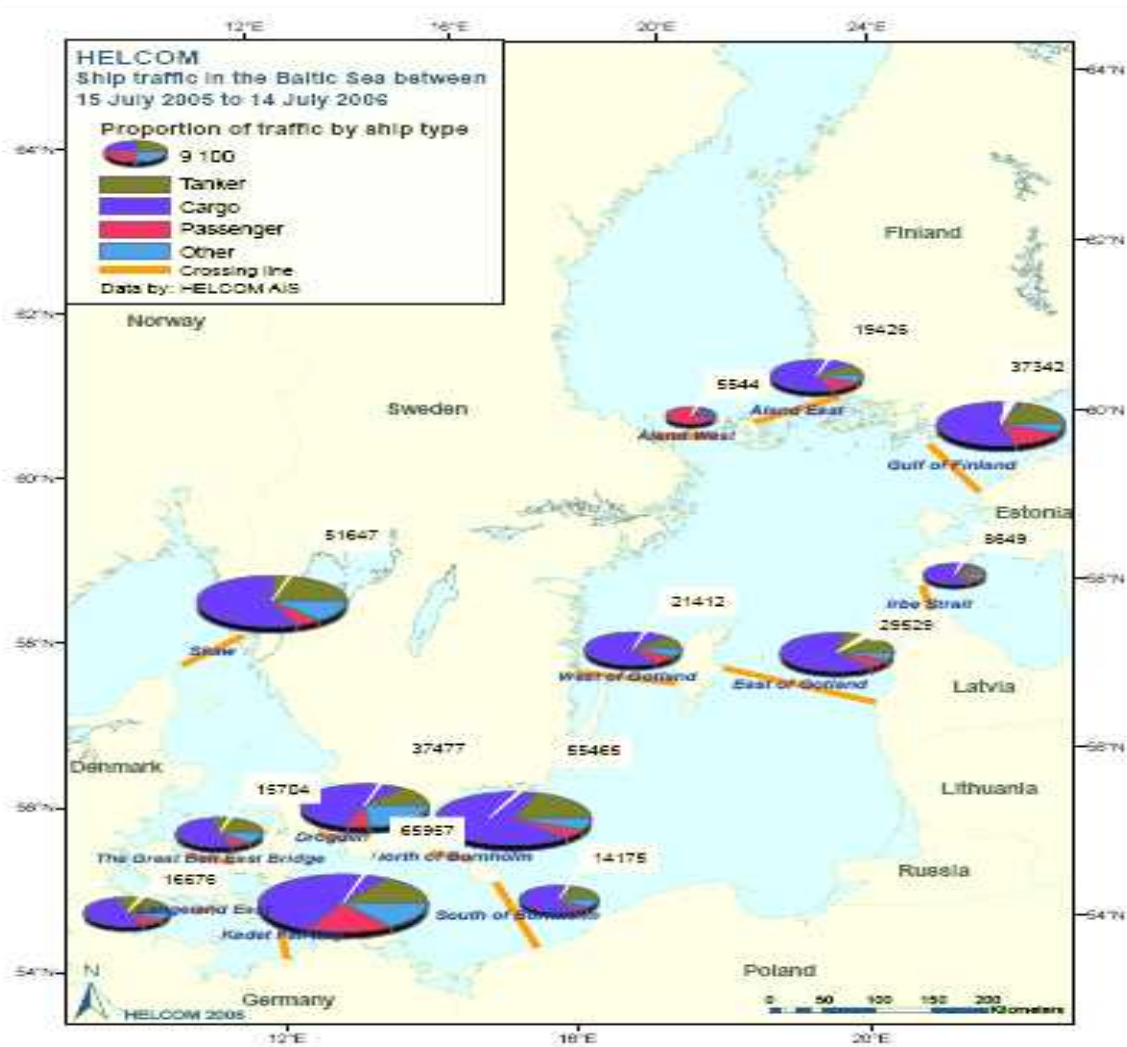


OTHER REQUIREMENTS

- LOW OUTSIDE TEMPERATURES
- ICING
- ICEBREAKER ASSISTANCE WITH ICEBREAKERS OF LESS THAN 30 M IN BREADTH

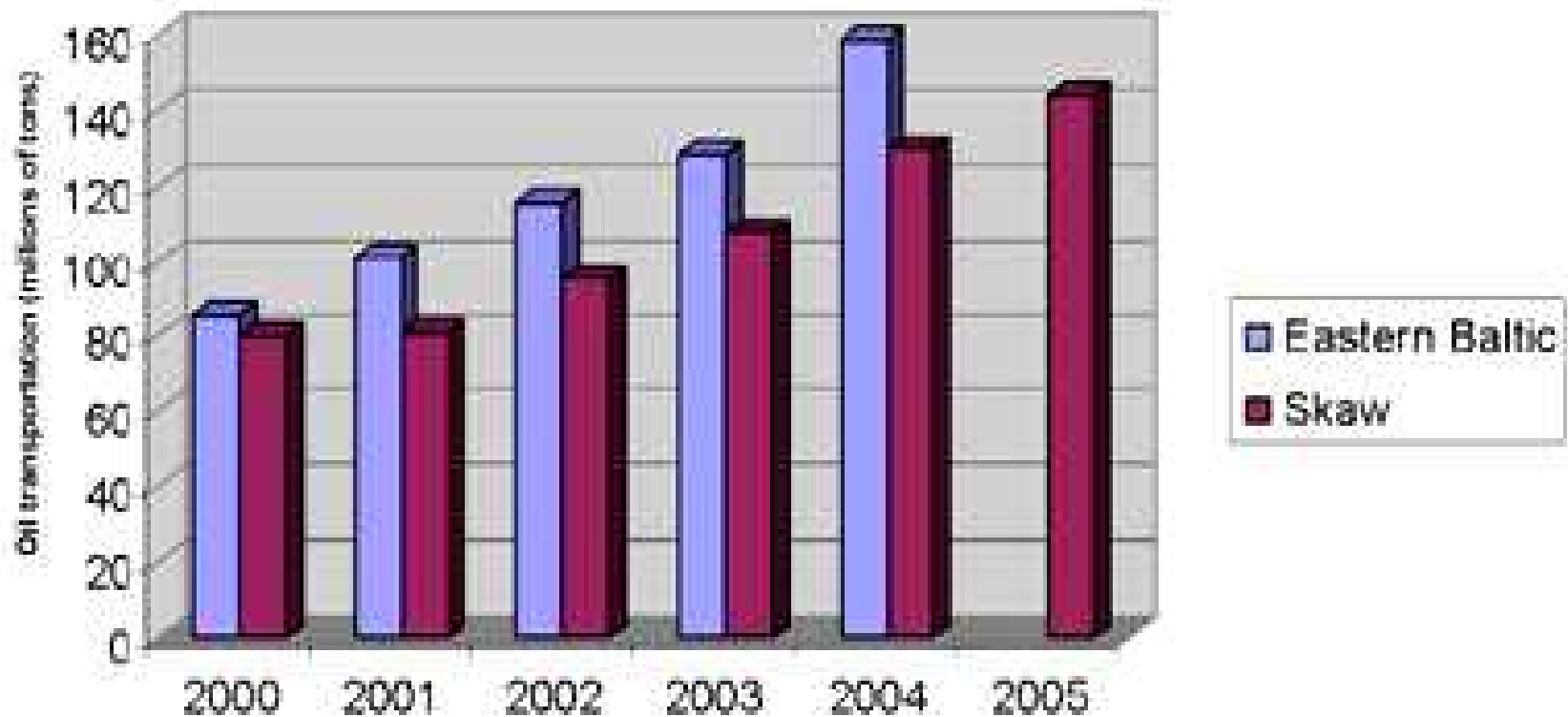


OIL TRANSPORT AT THE BALTIC SEA



OIL TRANSPORT AT THE BALTIC SEA

Oil transportation in the Baltic



TYPICAL BALTIC SEA TANKER



MT “KIISLA” (Photo courtesy of Neste Oil Oyj)

DAT



DOUBLE-ACTING-
TANKER

(Photo courtesy of
Neste Oil Oyj)

OIL SPILLS ?



MT “KASLA”, STAND-BY OIL RECOVERY VESSEL
(Source: EMSA Stand-By Oil Recovery Vessels for Europe)

CONCLUDING REMARKS

**ICE STRENGTHENING NEEDED;
IA OR BETTER (FSICR)**

**LIMITATIONS FOR THE TANKER SIZE;
T_{max} 15.4 m, B OF ICEBREAKERS APPR.
25 m**

**OIL SPILL PREPAREDNESS FOR ICE-
COVERED WATERS TO BE FURTHER
DEVELOPED**

- THANK YOU FOR YOUR ATTENTION -

