Ice navigation training in Rauma, Finland as a basis for ensuring safe and sustainable shipping in changing arctic environment

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Master Mariner (STCW II/2 6/2018)
Baltic Pilot 227 (valid for ever)
Maritime Accident Investigator
Pilotage Exemption
Ice navigation training in Rauma, Finland as a basis for ensuring safe and sustainable shipping in changing arctic environment

1. Introduction
2. Icebreakers
3. Ice navigation training
4. Conclusions
1. Introduction

SAMK
6500 students
450 staff
4 cities
Rauma
Member of IAMU, IMCA
BIMCO etc.
1. Introduction

RAUMA
40,000 inhabitants
SAMK campus
Rolls Royce
Steerprop
Oras, UPM,
Shipyard
Port of Rauma
1. Introduction; SAMK MARITIME
1. Introduction; SAMK MARITIME
2. Icebreakers

MURTAJA
1890
FROM SWEDEN
1600 hp
47.6 M Length
11 M Breadth
5.5 M Draught
930 tons Displacement
Fennica/Nordica
Diesel electric, 21 MW
116 M Length
26 M Breadth
2 Aquamaster, 3 bow thrusters
2. Icebreakers
2. Icebreakers; Murmansk 8/2015 Hki
2. Icebreakers; new building 2016

Copyright Aker Arctic
3. Ice navigation training

STCW

www.safeoskar.fi

HSE-project

Good seamanship

Experienced lecturers
3. Ice navigation training

Lenght 134 M | Breath 21.7 M
DW 5020 t | GT 12000
Speed 14 knots
1.0 M ice 5 knots
Passengers 100 | Crew 44
DNV ICE-10

Sea trials, ice trials
February, March 2012
Thesis; Cargo securing manual
3. Ice navigation training

TURVA for Coast Guard  STELLA for Finnferries
3. Ice navigation training

OTAVA for Finnferries

AHTO for Arctia Shipping
Port of KEMI
3. Ice navigation training
3. Ice navigation training
4. Conclusion

Experienced teachers

Practical sessions; shipbuilding, on board, simulators

Motivated students; safety culture, good seamanship, “arctic compensation”
SEAHORSE

Safety Enhancement in transport by Achieving Human Orientated Resilient Shipping Environment

FP7 Project Under Technology Transfer 2013- 2016
www.seahorseproject.eu

Public workshop 13.10.2015 Rotterdam
### Seahorse Consortium

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**ADVISORY BODY:** MCA, SWEDISH CLUB CARNIVAL, FLY BE, LOGAN AIR........
Any questions?

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THANK YOU