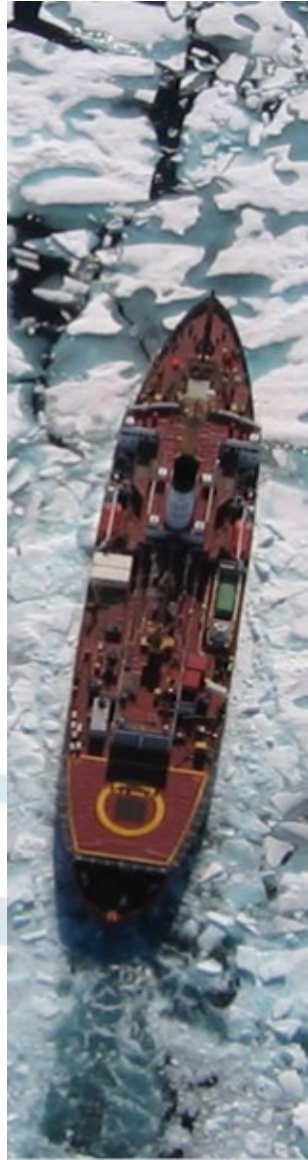


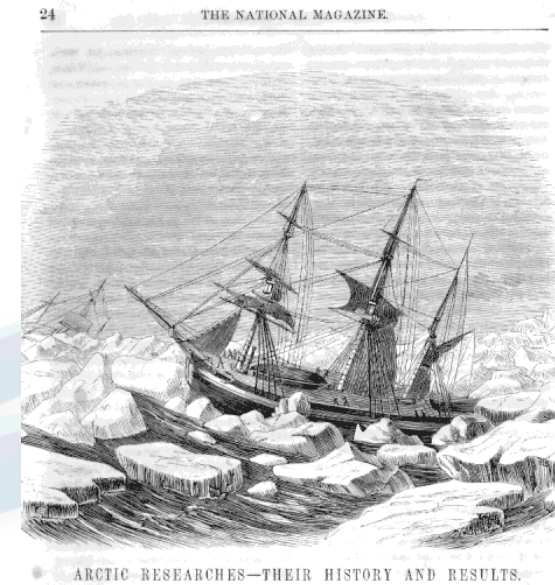
Filling the Gap: Competence Assurance in Ice Navigation

Captain John Lloyd
Chief Executive
The Nautical Institute



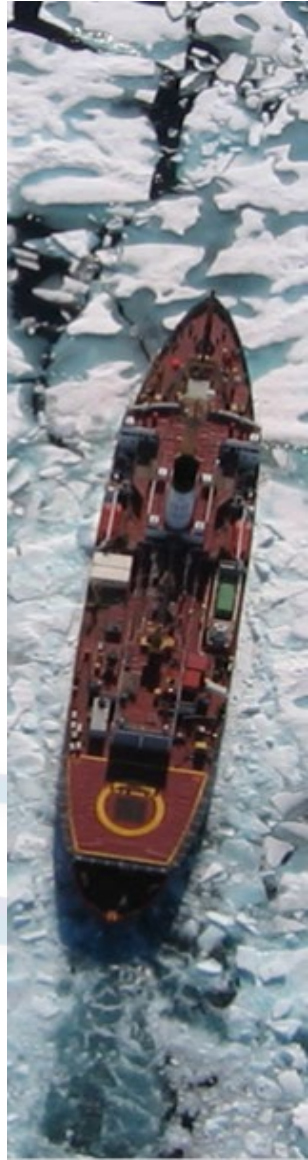
Polar Operations - Experience Counts

- “The navigation of the Polar seas, which is peculiar, requires in a particular manner, an extensive knowledge of the nature, properties and usual motions of the ice, and it can only be performed to the best advantage by those WHO HAVE A LONG EXPERIENCE with working a ship in icy conditions”
- William Scoresby, 1820



“It takes as long to train an Ice Master as it does a brain surgeon”

Ulf Ryder, Stena Seabulk, 2005



Why the Gap?

Polar Code and STCW

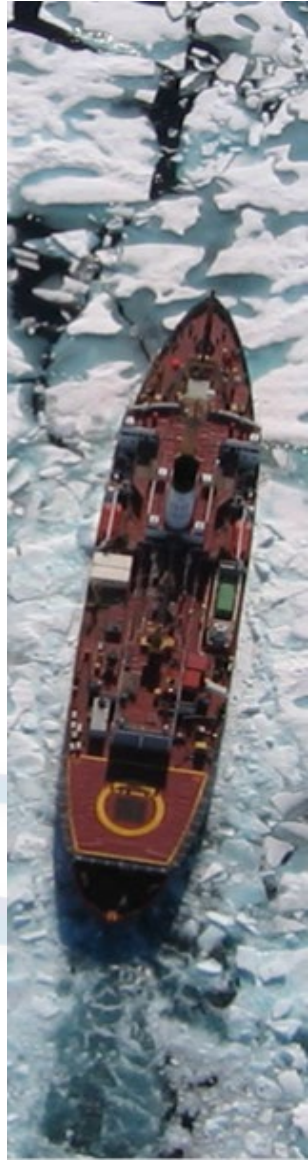
- Certificate of Proficiency in Polar Waters Training
- No practical in ice experience required, only 30 days in Polar Waters
- No assurance of competence in ice operations
- Very limited simulator "time" is not sufficient to ensure skills and competency levels achieved
- Owners and operators assuming possession of CoP Polar Waters training is a guarantee of ice operations competence. It isn't, it is far short.



Polar Code and STCW

What have we seen since 2016?

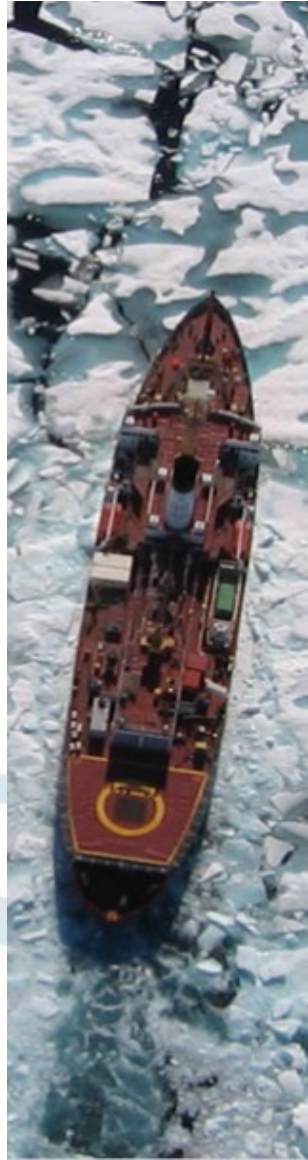
- Not all Polar Water courses are created equal – very wide range of quality and value
- Mariners arriving in Polar waters without CoPs, only training certificates
- Unable to correctly assess real time ice conditions
- Unable to interpret ice charts or imagery
- Unable to correctly apply AIRSS of POLARIS calculations
- PC Ship Categories selected below ice class, ship's officers unaware of the difference



Polar Code and STCW

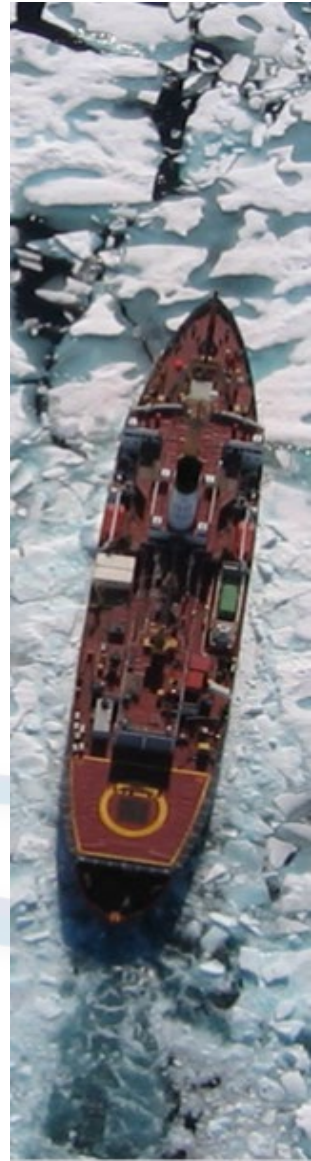
How do we address this?

- NI Ice Navigator certification compliments and adds to PC requirements
- Mariners must show time in ice operations
- If regular crew does not have sufficient experience in ice, embark a duly competent Ice Navigator



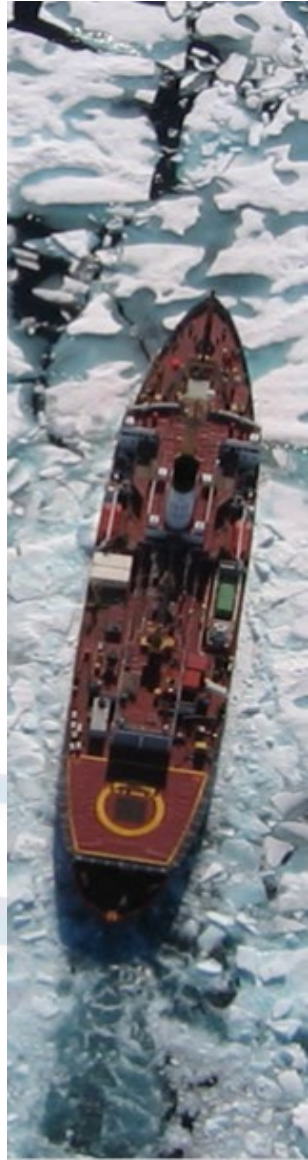
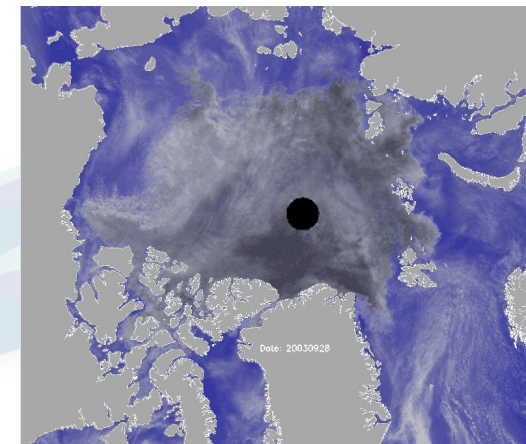
Experience Matters

- Knowing the difference
- Knowing HOW to deal with the wildly changeable conditions
- Understanding the limitations of ship and crew



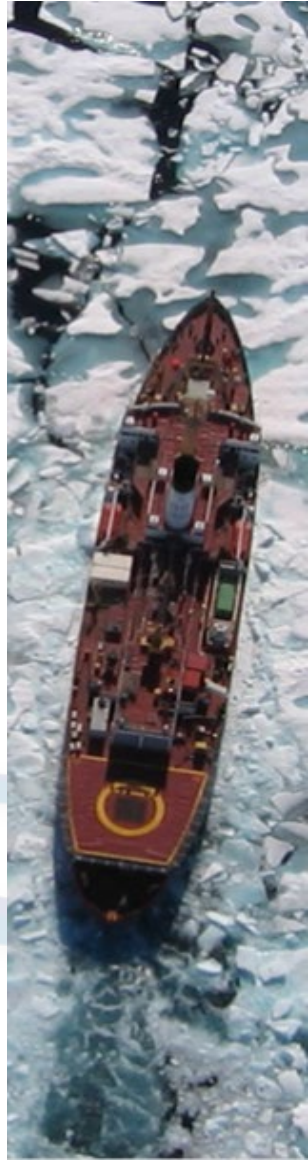
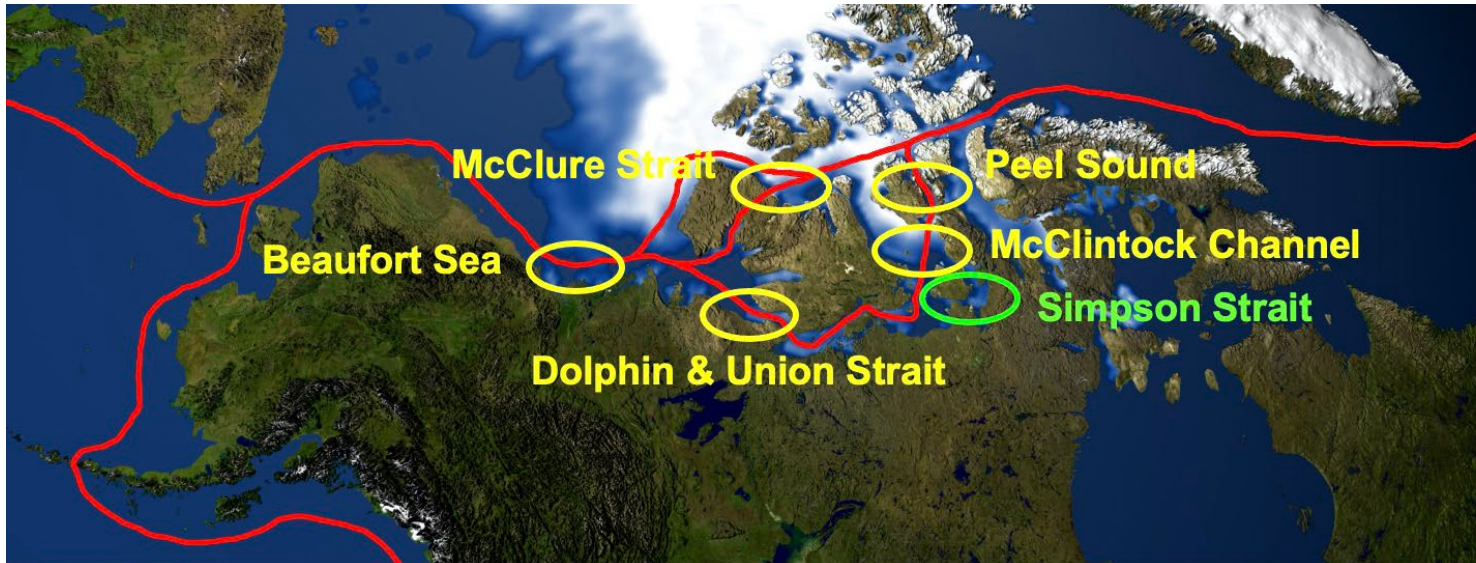
Challenges than must be considered

- Changing Ice Environment
- Arctic Polar Pack with Multi-year Ice
- Icebergs Baffin Bay, Davis Strait
- Changing conditions year to year
- Remains ice covered 8-9 months per year



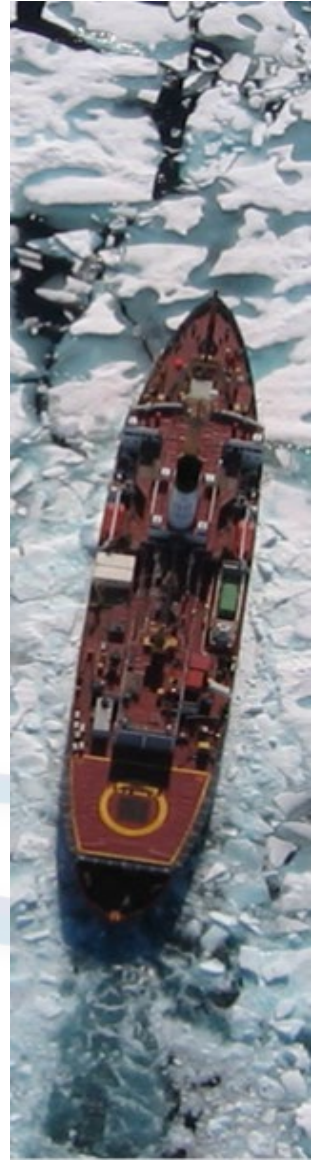
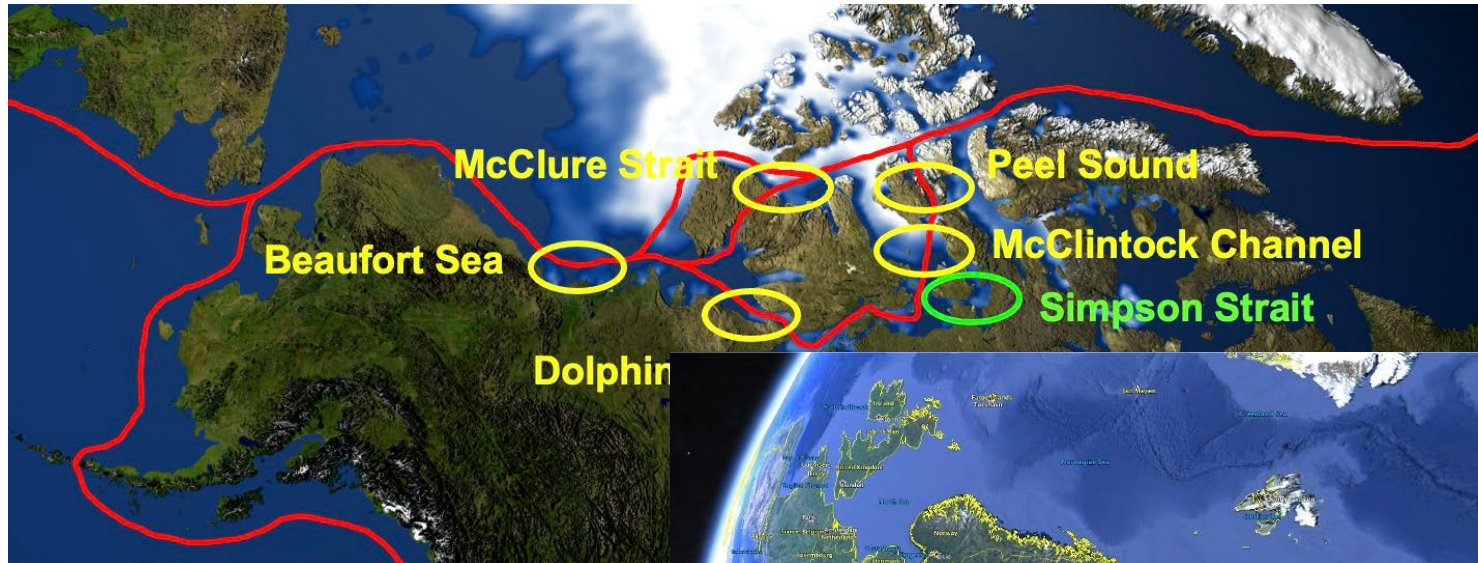
Challenges

- Persistent Choke Points



Challenges

- Persistent Choke Points

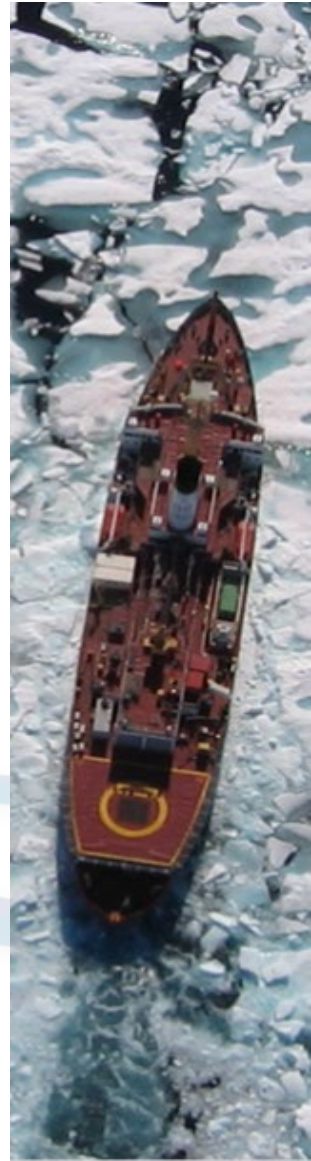


Experience Matters



Global footprint – Arctic and Antarctic Operations

- STCW Master Mariners
- CoP Polar Waters Advanced
- Nautical Institute Ice Navigator Level 2
- Years of experience in ice



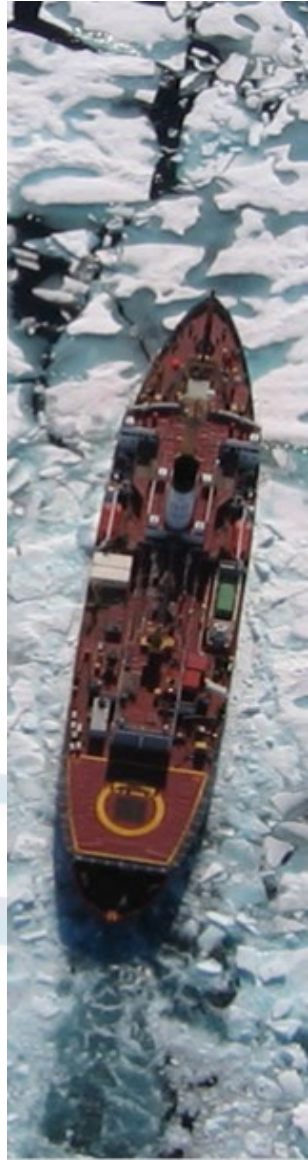
Certification and Experience Requirements

– The Nautical Institute

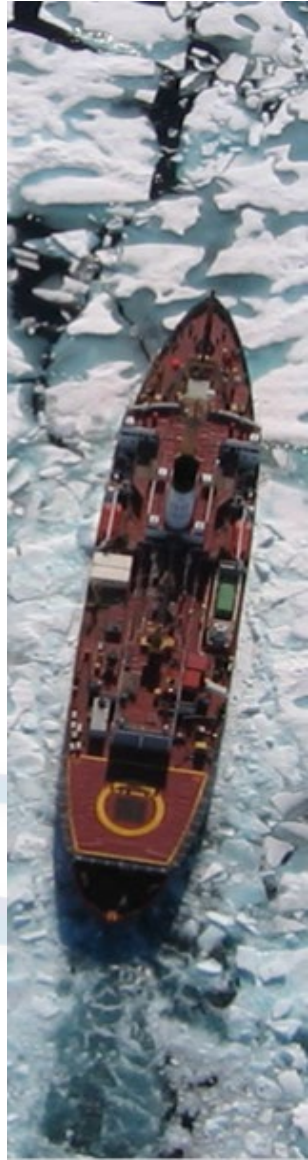


The Nautical Institute Ice Navigator

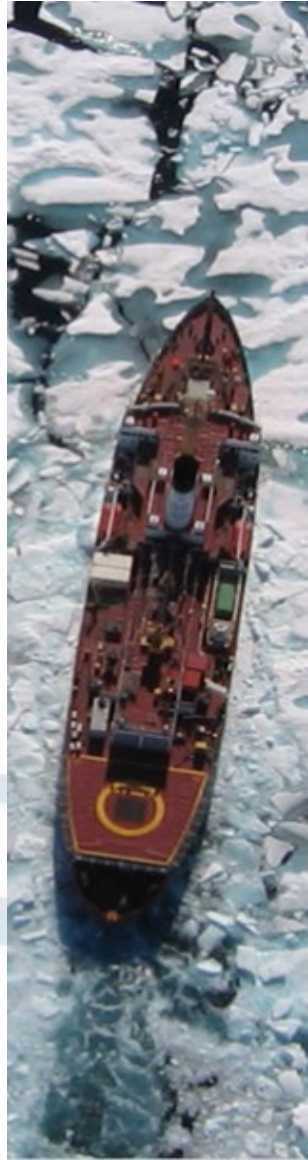
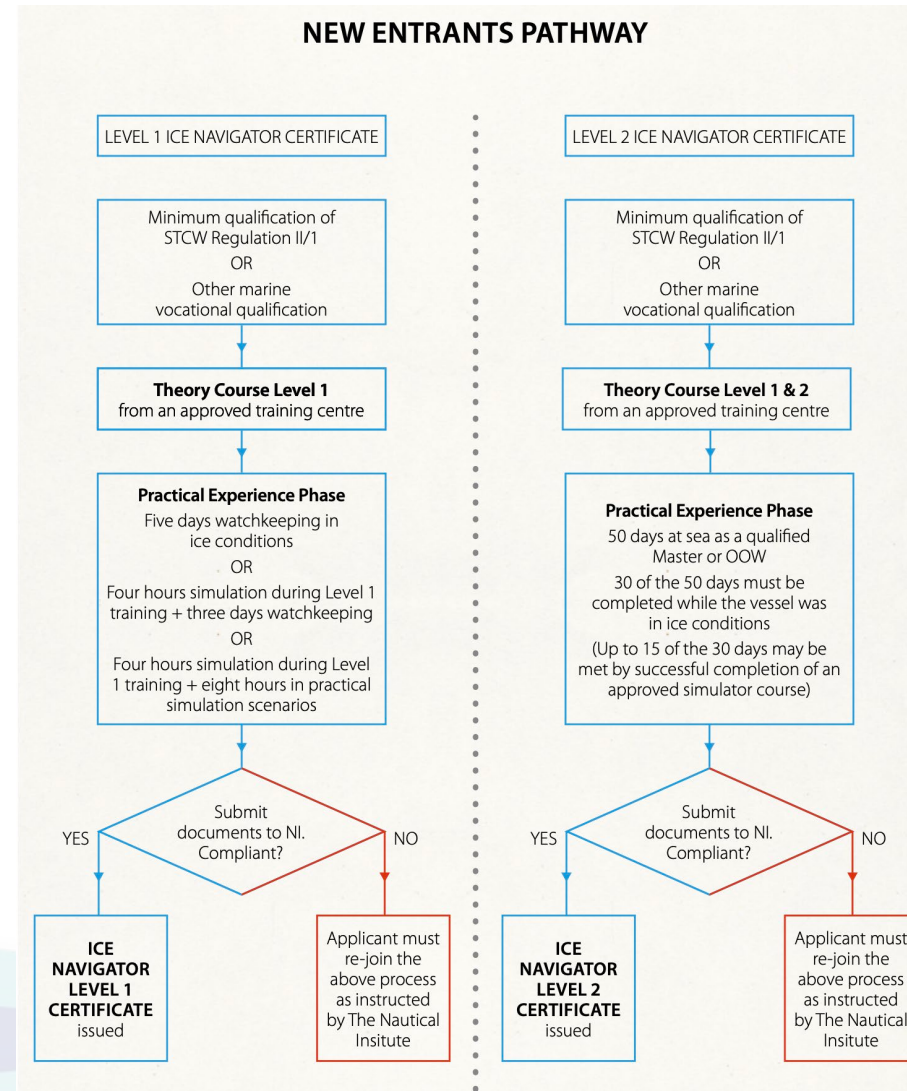
- Complements Polar Code
- Level 1 (Basic) and Level 2 (Advanced)
- Global in coverage, not just Polar
- NI complements PC requirements and ADDS ice operations competence.



Certification and Experience Requirements – The Nautical Institute



Certification and Experience Requirements – The Nautical Institute



Certification and Experience Requirements – The Nautical Institute

Level 1

- Successful completion of NI approved Level 1/Basic Course
 - Practical at sea experience in ice or approved simulation experience
- STCW or equivalent CoC
- Revalidation requires 30 days in ice over 5 years

Level 2

- Accumulation of verified ice time 50 days as Master or OOW of which 30 in ice conditions
- Successful completion of NI approved Level 2/Advanced Course
- STCW or equivalent CoC
- Revalidation requires 30 days in ice over 5 years



Ice Navigation



“Ice navigation is a never ending experience – a thrilling challenge which motivates you to reach for new, higher standards every day. The NI's Ice Navigator Certificate is the next logical step in demonstrating passion and proficiency”

Capt Mindaugas Oginskas MNI, National Geographic Ships/Lindblad Expeditions



Industry Engagement



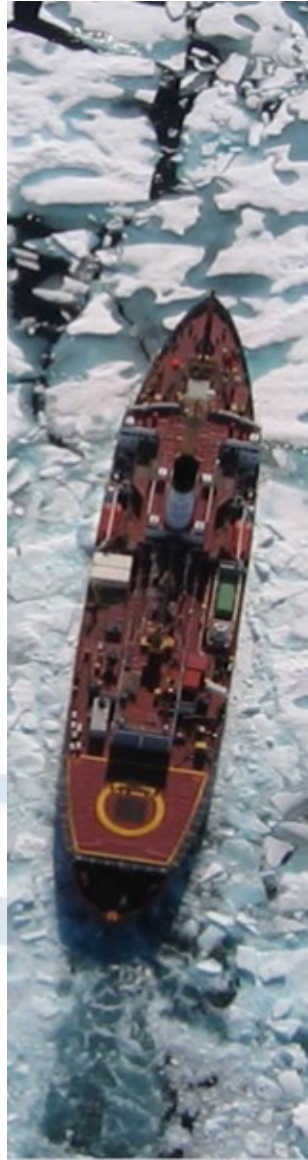
“The NI’s Ice Navigator Certificate sets an international benchmark that is readily recognised and verifiable, not unlike a charter ship”

Capt Victor Gronmyr AFNI, Ice Navigator

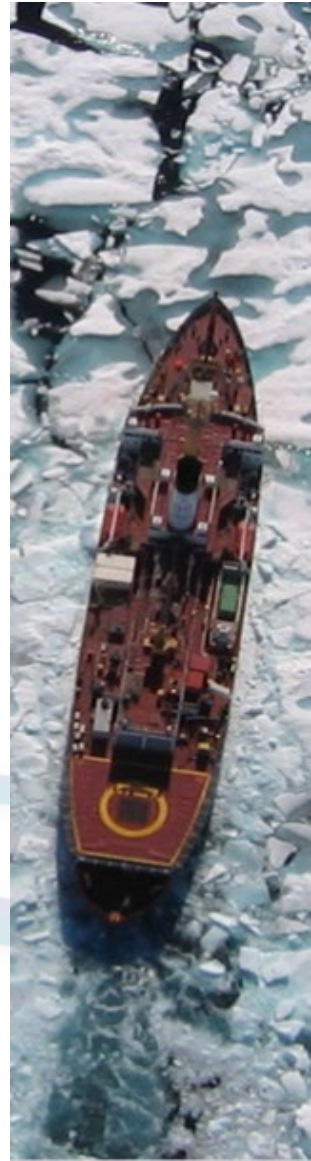
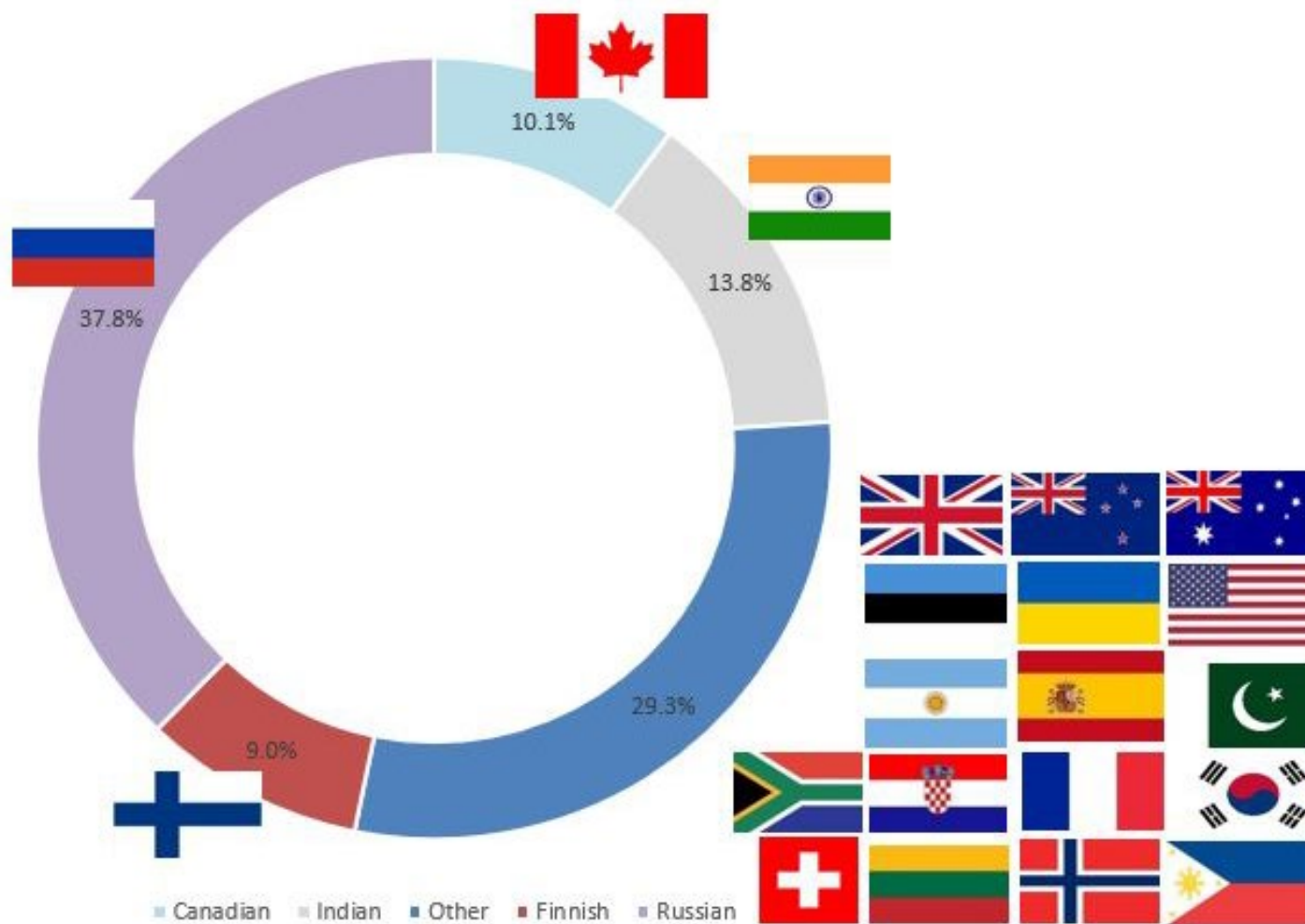


“All of our team members are fully NI Ice Navigator certificated as proof of competency handling ships in ice”

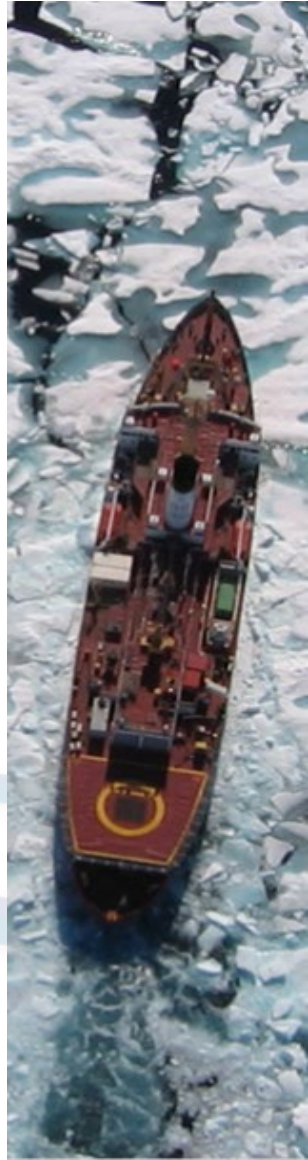
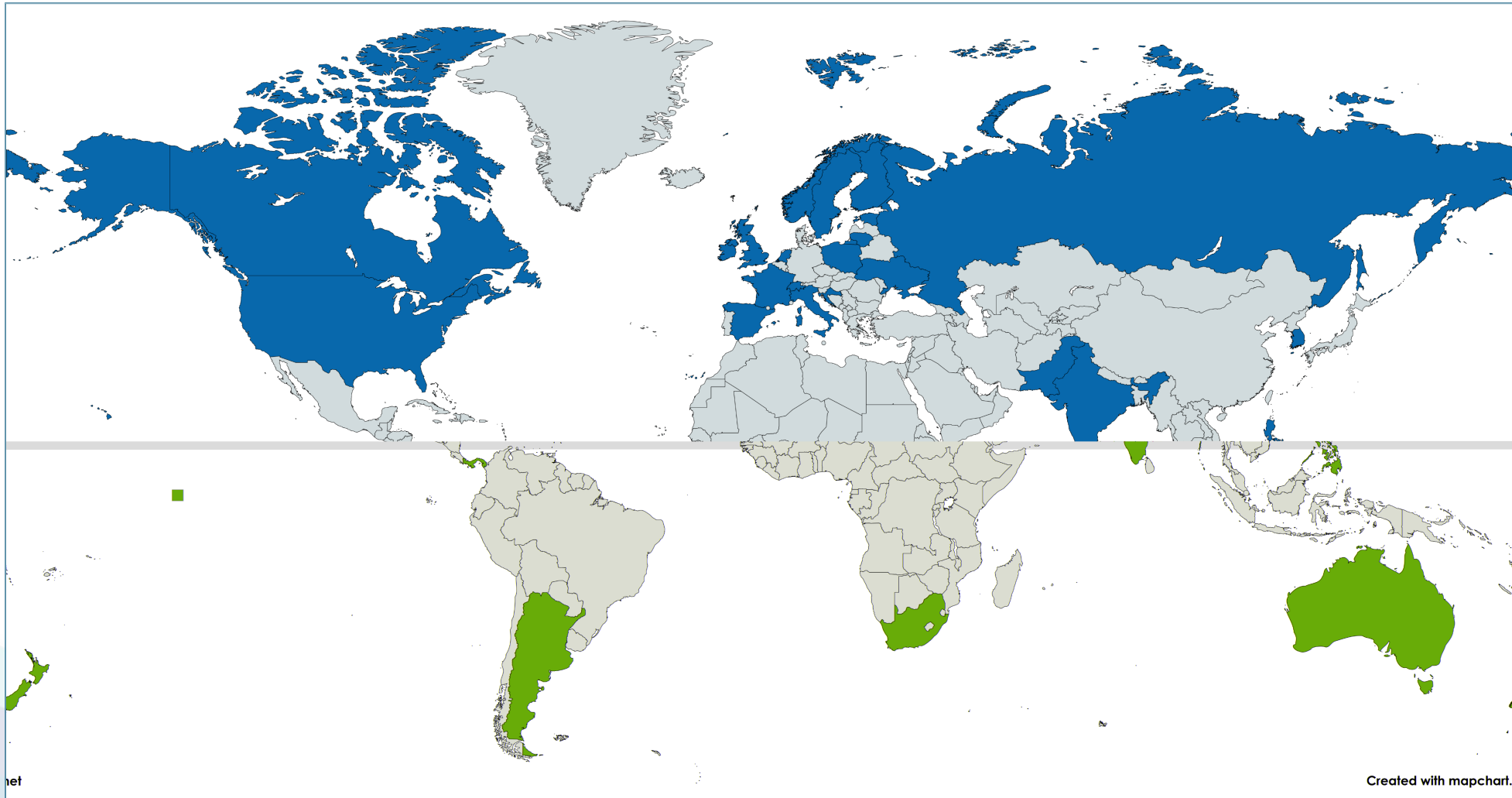
NI Past President
Capt David (Duke) Snider FNI,
Martech Polar Consulting Ltd



Ice Navigation – Certificated from over 25 countries



Global Standard – Global Participation



Filling the Gap: Competence Assurance in Ice Navigation

John.Lloyd@nautinst.org

Captain John Lloyd
Chief Executive
The Nautical Institute

