Perspectives on Scope and Implementation of the Polar Code

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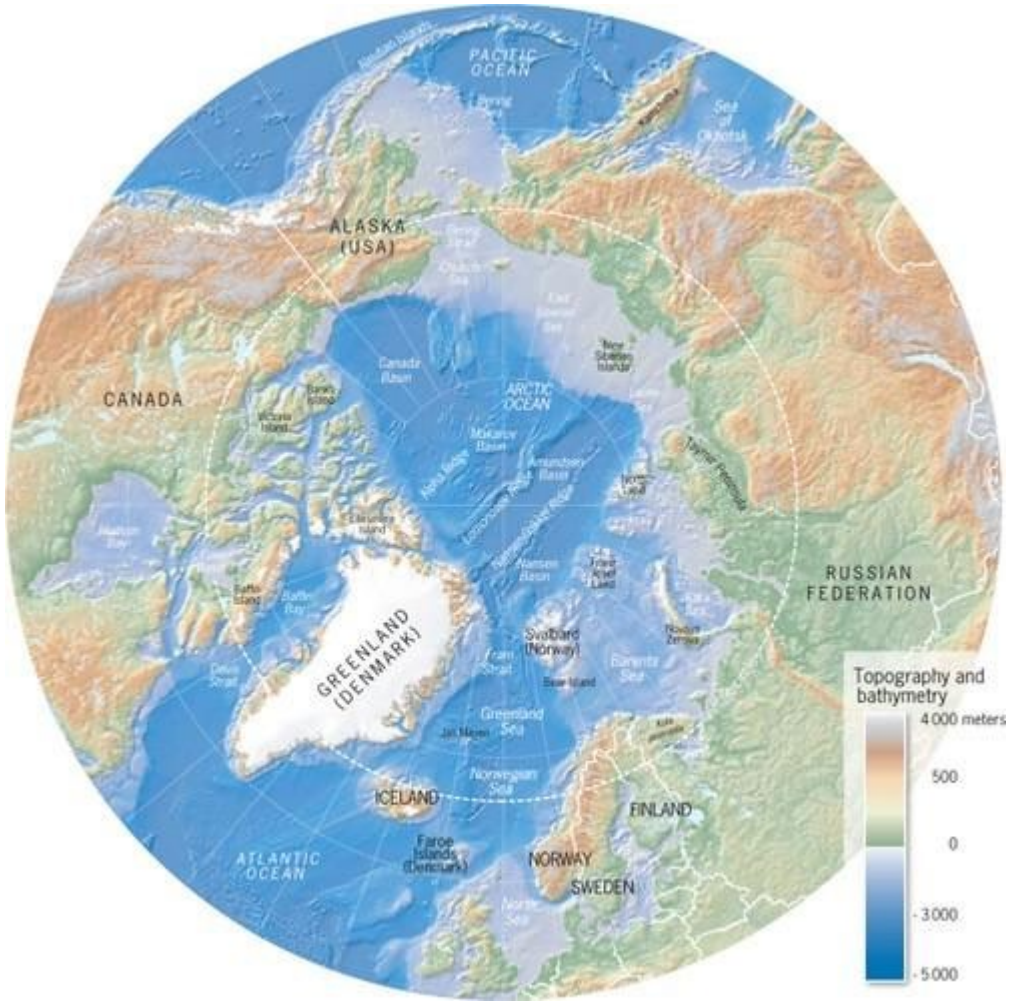
The Polar Code



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Adoption

- Part I Safety Measures 2014
- Part II Pollution Prevention 2015

Entry into force - 1st January 2017 (nearly 5 years ago)

- No agreed timing for review of the Polar Code

POLARIS Guidance on Methodologies for Assessing Operational Capabilities and Limitations – issued as "interim guidance"

- Includes a requirement for a four year review
- Anticipated in 2021

Analysis of the scope and implementation of the Polar Code

Sources of information

- new studies commissioned by WWF on the implementation of the Polar Code
- information presented at previous Arctic Council's Best Practice Information Forum meetings on the scope and implementation of the Polar Code
- submissions to Antarctic Treaty Consultation Meetings on the scope of the Code and on certification of polar shipping
- an investigation into the grounding of the passenger vessel Akademik Ioffe by the Transportation Safety Board of Canada

Note: Norway has instigated a PAME project to assess the implementation of the Polar Code which identifies a number of issues to be investigated further but there is no publicly available material yet.

WWF's analysis of flag state implementation of the Polar Code

Analysis of responses to questions sent to flag administrations and "recognised organisations" (ROs) operating in the Arctic or Antarctic

Results presented to IMO sub-committee (III) for consideration

Compliance issues identified:

- Polar Ship Certification – role with ROs but responsibility lies with shipowner / flag state
- Polar Water Operational Manual - outsourcing resulting in PWOMs that are generic and not ship or operation specific, plus other challenges such as:
  - obtaining mean daily low temperature data
  - establishing and providing adequate resources for maximum rescue time of 5 days
  - establishing operating limits due to many variables

The *Akademik Ioffe* accident

In August 2018, the passenger vessel *Akademik Ioffe* ran aground on an uncharted shoal 78 nautical miles north-west of Kugaaruk, Nunavut

Investigation findings included:

- area had not been surveyed to modern or adequate hydrographic standards
- echosounders were not being closely monitored / low water depth alarms were turned off
- crew had not sailed in the region beforehand
- insufficient life-saving appliances on the “rescue” vessel for everyone on both vessels

The Russian-flagged research ship Akademik Ioffe in the Frobisher Bay, Baffin island, Canada in 2006. (Victor Morozov / CC BY-SA 2.5 via Wikimedia Commons)

Presentations to the Best Practice Information Forum

- Lloyds Register (2018) Supporting Polar Code Implementation & Compliance
- Russian Federation (2018) - Polar Code Implementation in the Russian Federation Title Layout (pame.is)
- World Meteorological Organisation (2018) - WMO Polar activities & requirements related to implementation of the Polar Code
- DNV-GL (2018) - IMO Polar Code: Experience so far…
- Aker Arctic (2019) - POLARIS Update: A perspective on developments
- American Bureau of Shipping / Aker Arctic (2020) - Polaris: What's Next Industry Perspective
- The Polar Ice Project – NORSE (2020) - Polar ICE Polar Code Implementation, Compliance and Enforcement

Many challenges identified, for example….

- need for a standard template for PWOM
- interpretation of goal-based requirements
- need to validate the efficacy of the POLARIS methodology

WWF findings: Gaps I - identified during development of the Polar Code

Non-SOLAS vessels are not covered by the Polar Code (i.e. fishing vessels, pleasure yachts, small cargo vessels (<300GT))

In the Arctic non-SOLAS vessels make up around 1/3 of vessels and in the Antarctic over half of vessels

New outputs since the Polar Code adoption…

- Guidelines for non-SOLAS vessels for fishing vessels over 24m in length and pleasure yachts over 300GT (agreed in May 2021)
- Application of elements of Polar Code Chapter 9 on navigation to non-SOLAS vessels (drafting ongoing)
- Application of Chapter 11 on voyage planning to non-SOLAS vessels (drafting ongoing)

WWF findings: Gaps II - in environmental protection

MARPOL-type issues

- Use and carriage of heavy fuel oil in Arctic
- No provisions on packaged harmful substances (place-holder only)
- Discharge of raw / untreated sewage beyond 12nm still permitted
- Treatment and discharge of greywater
- Prevention of air pollution – black carbon, CO2, SOx, NOx

Other environmental protection issues

- Spill preparedness and response (guidance on mitigation measures being developed)
- Introduced / invasives species via ballast water discharge or hull fouling
- Underwater noise
- Routeing measures e.g. areas to be avoided, deepwater routes

Note: some gaps have been considered further since the Code was adopted e.g. HFO use and carriage, atmospheric emissions, underwater noise

WWF Findings: Challenges I - Governance / Regulation

- Interpreting the goal-based requirements of the Code
- Compliance and the role of recognised organisations versus flag states
- Lack of experience with operational assessments
- Validation of efficacy of POLARIS methodology
- Provision of a PWOM / How to model a PWOM / Operational assessment not captured in the PWOM
- Relationships between ship categories and ice class / ships operating in ice with no or little ice strengthening

WWF Findings: Challenges II - Operational / Knowledge

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- More detailed inspections of vessels
- Mandatory carriage of additional navigation aids e.g. forward-looking sonor
- Use of navigational experts with local knowledge
- Itineraries scheduled so that another vessel is in proximity to aid in case of an emergency (especially passenger vessels)
- Ice navigation courses
- All ships required to provide data on weather and ice conditions
- Collation of marine mammal and MPA data for use by mariners in voyage planning
- Geographic application

Conclusions

- First ever mandatory code for polar waters AND first ever cross-cutting regulation covering both safety and pollution prevention, and regionally focused
- This work has identified a long list of gaps, challenges and potential improvements
- Based on our analysis, we believe that a number of areas are in need of further attention, and would benefit from a proper and holistic review
- There must be no complacency, as Arctic shipping is set to increase & every incident may be fatal for the Arctic marine environment

…and Next Steps

- Focused discussion at the Best Practice Information Forum
- Consideration of relevant aspects by the PAME Shipping Expert Group
- Further submissions of analyses & proposals to MSC and MEPC


Thank you
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