Voyage Planning in the Polar Code: An Environmental Perspective

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Polar Code and the Environment

- Categories of vessels (Definitions)
- Polar Water Operational Manual (Chapter 2)
- Damage stability (Chapter 4)
- Watertight and Weather tight Integrity (Chapter 5)
- Navigation (Chapter 9)
- Voyage planning (Chapter 11)
- Training (Chapter 12)
- Pollution Prevention (Part II A Chapters 1 - 5) and Part II B
[Masters should take into account]:

‘current information and measures to be taken when marine mammals are encountered relating to known areas with densities of marine mammals, including seasonal migration areas,’ (paragraph 11.3.6)

and ‘current information on relevant ships' routing systems, speed recommendations and vessel traffic services relating to known areas with densities of marine mammals, including seasonal migration areas’ (paragraph 11.3.7)
Marine Mammals of the Arctic

From Hauser et al. 2018
Threats to marine mammals in polar regions

- Ship strike
- Underwater noise
- Disturbance (feeding, breeding, habitat)
- Pollution - oil / chemical spills, plastics
- Entanglement
- Climate change

Photo: Paul Nicklen/SeaLegacy.org
Chapter 11 on the Forum

- 7 Sources on Marine Mammals
- Best Coverage in Canada, including WWF, Oceans North, Nunavut Planning Commission, and Canadian Hydrographic Service
- 1 each for Greenland, USA, and Norway/Svalbard
- 1 on Southern Ocean (CCAMLR)
- No Russian Data on Marine Mammals at Present
Awareness Raising and Workshops

Policy changes to reduce vessel strikes

- 1999: U.S. Mandatory ship reporting (educational) - southeast and northeast (first proposal to IMO)
- 2003: Bay of Fundy shipping lane amended – IMO precedent
- 2006: U.S. Recommended routes – southeast Florida and northeast Cape Cod Bay
- 2007: Boston shipping lanes amended
- 2008: Roseway Basin Area To Be Avoided – IMO precedent
- 2008: U.S. Speed rule (≤ 10 knots) and Seasonal and Dynamic management areas 5 year sunset clause removed in 2014.
- 2009: U.S. Great South Channel Area To Be Avoided and amended lanes

Right whales have more protection from vessel strikes throughout their range from Florida to Fundy ... but now addressing in new habitat areas.

Any other business

New information sources to support implementation of the Polar Code marine mammal avoidance provisions
Data Challenges
Climate Change
Planning in a Complex Environment

In addition to Marine Mammals:

- 1 the procedures required by the PWOM;
- .2 any limitations of the hydrographic information and aids to navigation available;
- .3 current information on the extent and type of ice and icebergs in the vicinity of the intended route;
- .4 statistical information on ice and temperatures from former years;
- .5 places of refuge;
- .8 national and international designated protected areas along the route; and
- .9 operation in areas remote from search and rescue (SAR) capabilities.
Best practices in the Southern Ocean

- Southern Ocean vessels
  - Cruise ships
  - Fishing vessels
  - Resupply / research ships
- IAATO / CCAMLR / COMNAP
- Over 56,000 visitors last season / over 80,000 expected 2019/2020
- Exchange of experience and best practices
The Polar Code and Marine Mammal Avoidance Planning in the International Maritime Organization

Summary

This paper provides information on the marine mammal avoidance provision of the International Maritime Organization's Polar Code, including sources of available information on marine mammal densities, and methods of conveying information to ship masters. ASOC advocates enhanced cooperation with the IMO and the Antarctic Treaty System (ATS), as well as further discussion by the CEP and ATCM on implementing the marine mammal avoidance provision in Antarctic waters.

Introduction

The impact of polar ship traffic on the marine environment in general, and marine mammals in particular, has become a topic of increasing concern in recent years. The impacts of increased shipping on polar marine populations will add to those due to climate change. Increasing temperatures and reductions and changes to ice in the Southern Ocean have impacted the lives of species in the Antarctic region.
www.HappyWhale.com
Best practice led by Antarctic Tour Operators:

- 10kn speed restriction

OR

- Extra watchman on bridge to monitor and record
Next Steps for Marine Mammals

- Bridging Data Gaps
- Digital Integration of MM layers in navigation software
Next steps for voyage planning

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Thank you!