



POLICY BRIEF

October 2022

STRENGTHENING THE POLAR CODE

Shipping rules can improve maritime safety and environmental protection in the polar regions. This Policy Brief focuses on the requirements to strengthen protection for the Arctic.

Key Messages

- **As sea ice recedes, polar shipping is set to increase**, but every incident can have major, irreversible consequences in polar regions.
- **Polar voyage planning:**
Improved understanding of polar voyage planning, guidance and experience is urgently needed, including accessing information on hydrographic data, daily temperatures, sea ice conditions, marine mammal populations and migratory routes, and ecologically sensitive areas.
- **Polar shipping:**
All vessels must be fit for operation and properly equipped to withstand the harsh polar conditions, including ships with no or little ice-strengthening (Category C vessels) along with fishing vessels, pleasure yachts and small cargo vessels.
- **Eliminate discharges into polar waters:**
Grey water, sewage and scrubber washwater discharges into polar waters should be significantly reduced or banned.
- **It is time to strengthen the Polar Code.**

Context

As sea ice recedes,¹ new shipping routes are opening up in the Arctic, bringing more ships into the region². Navigating in these harsh waters poses significant challenges for ships and their crews. Having more vessels sailing in and through the Arctic regions means increased threat to marine wildlife and Indigenous communities from oil spills, collisions with vessels, polluting discharges to water and to the atmosphere and underwater noise to name a few.

Following more than five years in development, the International Maritime Organization's (IMO) International Code for Ships Operating in Polar Waters (Polar Code) came into effect in January 2017, with the aim of providing a clear set of regulations and guidance for all passenger and cargo ships operating in the polar regions.

The purpose was to protect ships and ships' crews operating in these remote waters, as well as the Indigenous communities and wildlife populations dependant on the fragile ecosystems of the polar seas.³ For the first time, the Code set out a series of measures for ships operating in the remote and often hazardous waters of the polar regions.

In 2021, WWF commissioned a review of the challenges and gaps in the Polar Code, assessing if the scope and implementation were adequate to address the existing and new risks associated with Arctic navigation. The analysis revealed that the Code does not go far enough in preventing accidents and nor does it adequately address pollution that could have catastrophic consequences for marine life in Arctic waters and for communities.⁴ A number of factors were identified including challenges with compliance, difficulties in interpretation of the Code's goal-based requirements, lack of experience and problems with accessing data required for polar voyage planning, and gaps in regulation.

Voyage planning should improve safety and limit harm to marine species and ecosystems

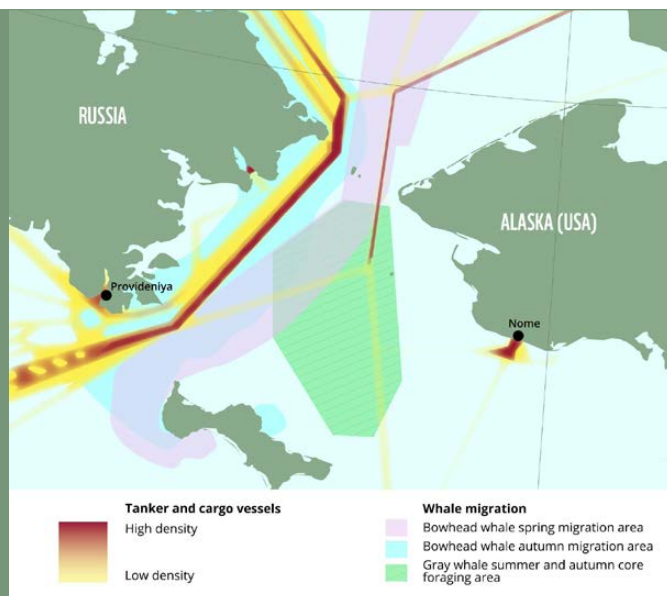
Among the gaps identified by the review, the difficulties in accessing data for polar voyage planning is a high priority, because of the potential for poor outcomes for ships, cargoes, crews, Indigenous communities and marine wildlife. As sea ice extent decreases particularly in the summer months, ships are travelling on routes which vessels have not sailed before and for which there can be very limited hydrographic information. Difficulties have been experienced in accessing mean daily low temperature data in areas not covered by meteorological data, and with identification of appropriate sea ice charts and accessing accurate sea ice data.

New voyage planning regulations in the Code now require ships to access data on marine mammal populations and their migration routes, and on marine protected areas likely to be encountered on route. These provisions are new to voyage planning, but it is not well known where or how ships' masters can access the necessary information. In addition, there are few routing measures in place in polar regions to avoid ecologically sensitive areas.

Action required:

- **In relation to voyage planning**, awareness of the challenges, gaps in knowledge and action to be taken needs to be raised with key stakeholders.
- **Development of a unified interpretation and further guidance** on polar voyage planning.
- **The relationship between Polar Water Operational Manuals and voyage planning** should be clarified.
- **Development of strategies to improve polar voyage planning expertise** including access to information should be developed and implemented.
- **Identification of suitable routing measures** to protect wildlife and Indigenous communities should be established.

In the Bering Strait region, hotspots see significant shipping volumes and high traffic converge on migration routes for bowhead, beluga, gray and humpback whales. These areas – marine mammal “blue corridors” – should ideally be avoided and if impossible to avoid, then navigated with extra caution. In 2018, the IMO established shipping lanes for vessels sailing in the Bering Strait and areas to be avoided (ATBA), a special designation to keep shipping away from ecologically sensitive areas.⁵ Similar measures are needed to protect marine mammals, and Indigenous communities and to support voyage planning throughout the Arctic.



In August 2018 the Russian passenger vessel *Akademik Ioffe* ran aground on an uncharted shoal in a remote area of the Canadian Arctic. The ship's hull was damaged, but fortunately only a small spill of fuel oil occurred. None of the ship's crew had ever been in the region and the route had not been surveyed to modern or adequate hydrographic standards.



WWF-Aus / Chris Johnson

Vessels fit for operation in the harsh Arctic conditions

The Polar Code applies to all passenger and cargo vessels, but some of the provisions, such as requirements to have sufficient residual stability in the event of ice-related damage, are applicable only to those vessels with the highest levels of ice strengthening, designed for operation in more challenging ice conditions. Many Arctic ships will be Category C vessels which can operate in open water or less severe ice conditions. Some will have ice strengthening that enables them to operate in nearly one metre thick first year ice, while some will be vessels allowed to operate in up to fifteen cm thickness of first year ice with no ice strengthening.

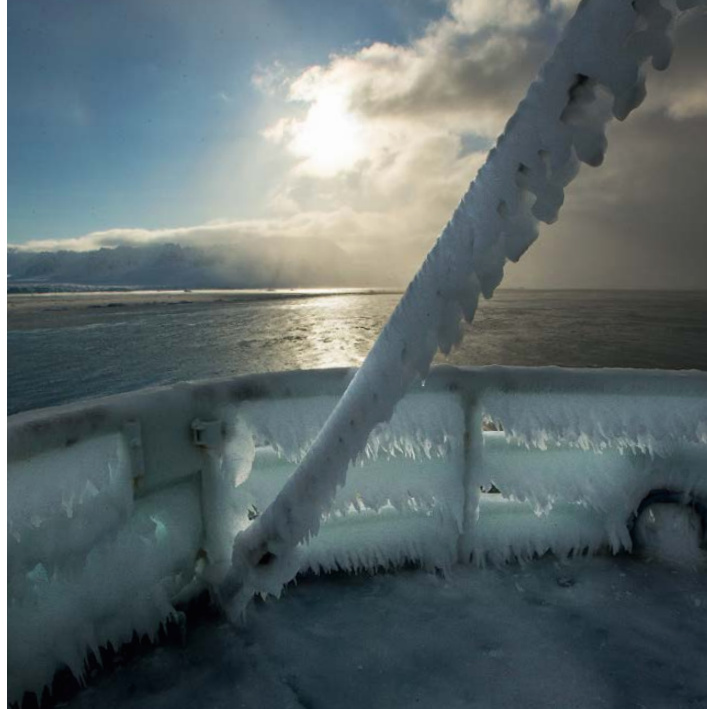
However, both new and first year ice can be thicker than expected or can be mixed with multi-year ice. If a Category C ship unexpectedly encounters thicker than expected ice along its route or chunks of ice in the water, there is a serious risk of the ship becoming stuck, having the hull penetrated, or sinking altogether, placing the crews and the environment in jeopardy.

In addition, the Code does not apply to fishing vessels, pleasure yachts, and small cargo vessels (under 500 gross tonnage), so-called non-SOLAS vessels, despite over one-third of vessels

operating in the Arctic being non-SOLAS vessels. IMO has subsequently developed mandatory regulations for these vessels on navigation and voyage planning due to come into effect in 2026, but only voluntary guidelines addressing other safety measures for fishing vessels and pleasure yachts. Furthermore, only fishing boats of 24m and longer are covered, despite WWF's findings that fishing vessels between 10–23m accounted for almost half of fishing vessel incidents between 2005–2017⁶. It is critical that all vessels operating in the Arctic are subject to relevant safety and environmental protection measures of the Polar Code.

Action required:

- **All Arctic vessels must be fit for operation and properly equipped** to withstand the harsh polar conditions, including ships with no or little ice-strengthening (Category C vessels), along with fishing vessels, pleasure yachts and small cargo vessels.
- **The requirement to have sufficient residual stability in the event of ice-related damage** should be applied to all vessels operating in the Arctic, with exemptions given if the area of intended operation allows.



Reducing grey water and sewage discharges in the Arctic pristine waters

Among the most obvious gaps in the Polar Code's environmental regulations is its lack of stringency with regards to discharges of grey water, sewage and scrubber washwater into the pristine Arctic waters. For example, the Code allows the discharges of raw, untreated sewage directly into the sea as long as the ship is more than 12 nautical miles

from land, ice-shelves or fast ice and as far as possible from ice concentration. However, areas where wildlife congregate to feed in polar waters will not necessarily be located within 12 nautical miles of land or ice but will frequently be associated with ocean gyres and fronts. In addition, grey water discharges are completely unregulated despite potentially including high levels of nutrients, heavy metals, and chemicals.

Action required:

- **Untreated grey water, untreated sewage and scrubber washwater discharges into polar waters should be banned.**

Conclusion

With the Arctic changing rapidly, the Polar Code urgently needs a full and holistic review, to ensure adequate protection of vulnerable Arctic marine ecosystems and communities. Any incident in the Arctic has the potential to be devastating for wildlife, for communities and for crews. Following five years of application, and with Arctic shipping set to increase as sea ice continues to recede the challenges and gaps identified through WWF's work should be reviewed and actions to strengthen the scope and effectiveness of the Polar Code should be agreed.

References

- 1 According to NASA observations, summer Arctic sea ice extent is shrinking 12.6% per decade. See NSIDC/NASA, Satellite Observations: Annual September Minimum Extent (2022). <https://climate.nasa.gov/vital-signs/arctic-sea-ice/>
- 2 Arctic Council. 2020. The Increase in Arctic Shipping: 2013-2019. Arctic Shipping Status Report (ISSR) #1. https://oaarchive.arctic-council.org/bitstream/handle/11374/2733/ASSR%201_final_.pdf?sequence=1&isAllowed=y
- 3 The Polar Code came into effect on January 2017. It addresses both safety measures for ships operating in Polar waters (Part I) and environmental protection measures (Part II). Each part of the Code is divided into Mandatory Measures and Recommendatory Measures/ Additional Guidance.
- 4 Prior, S. 2022. Review of Perceived Gaps and Challenges in the Implementation of the Polar Code. A WWF Arctic Programme Publication. https://apiwwfarcicse.cdn.triggerfish.cloud/uploads/2022/04/12144330/22-4372_polar_code_220408_links-3.pdf
- 5 In 2018, the IMO approved the designation of two-lane shipping lines and six special buffer zones in the Bering Strait. In addition, three Areas to Be Avoided for three Alaska islands in the Bering Sea, King Island, St Lawrence Island and Nunivak Island, to protect whales frequent in these waters from collision with ships and exposure to severe noise pollution. See Arctic Today. "With Marine Traffic Growing, International Shipping Agency Approves US-Russia Plan for Bering Strait Shipping Lanes." May 26, 2018. https://www.arctictoday.com/marine-traffic-growing-international-shipping-agency-approves-us-russia-plan-bering-strait-shipping-lanes/?wallit_nosession=1
- 6 See NCSR, Navigation, Communication and Search & Rescue, 8/5/1 in which co-sponsors FOEI, Pacific Environment and WWF provide data on accidents involving, loss of, damage to, and oil discharge from Arctic fishing vessels of under 10m, between 10–24m, and over 24m, between 2005 to 2017.



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