

Commentary

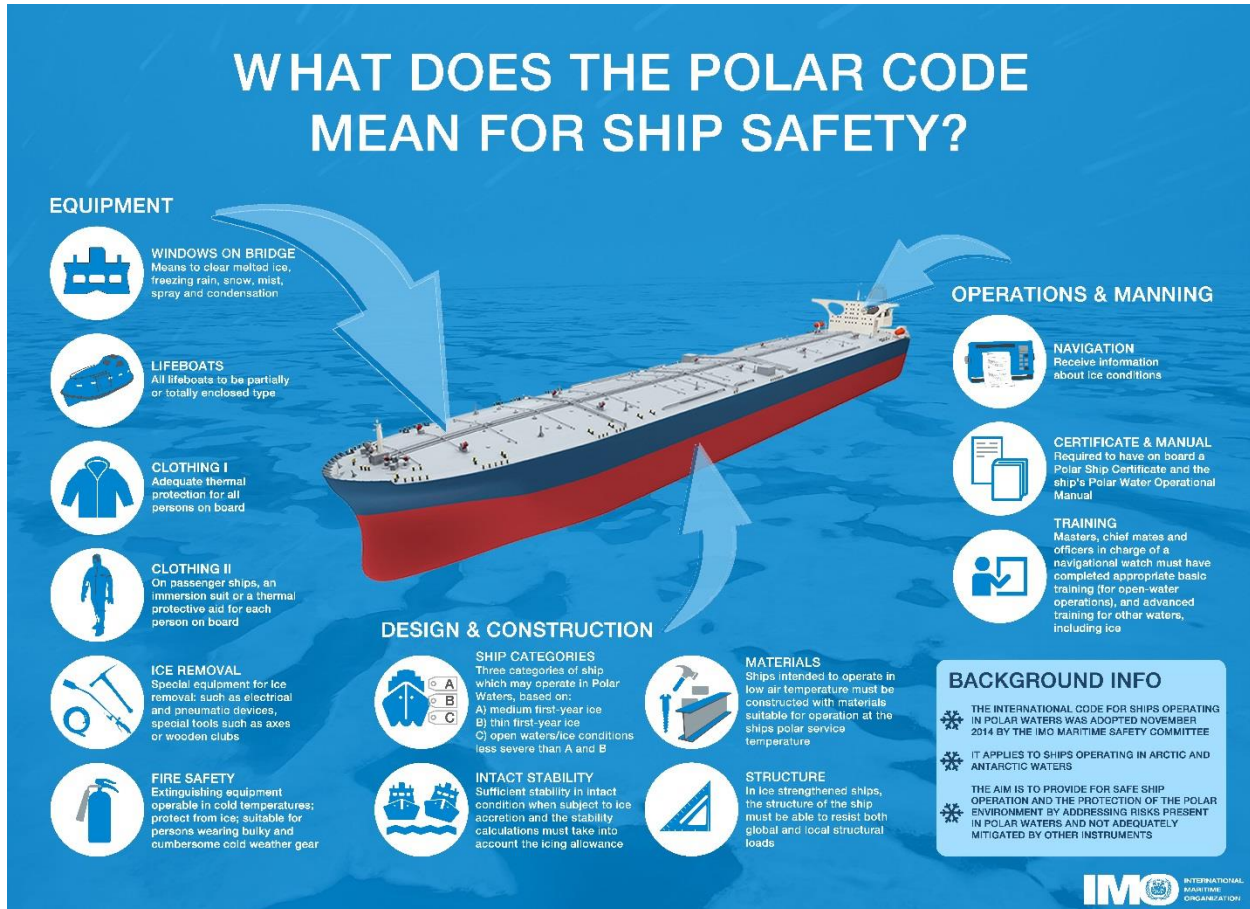
Getting Arctic Shipping Back on Course

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In Iqaluit earlier this year, a clutch of ministers from Arctic states welcomed progress made on the International Code for Ships Operating in Polar Waters (the ‘Polar Code’), an International Maritime Organization (IMO) instrument to regulate shipping in Arctic and Antarctic waters. The ministers noted that the progress followed “extensive engagement by the Arctic States.” The ministers were right to welcome the progress made. The Polar Code, expected to be implemented in 2017, will for the first time introduce mandatory, polar-specific requirements for cargo vessels over 500GT and passenger vessels operating in polar waters. It is anticipated that it will lead to improved safety in Arctic shipping, with provisions on such things as training for senior officers, the requirement for a polar operations manual and polar operations certificate, and rules for different classes of ships according to their ability to operate in ice. As pointed out in a report commissioned by the Arctic Council’s PAME working group, improved safety measures reduce oil pollution risks. What the ministers did not point out that day is that the Polar Code can still do so much more to reduce the risks of impacts from shipping and protect the Arctic marine environment.

A necessary next step for the Code is to extend it to smaller vessels, as so far it only applies to larger vessels. So-called SOLAS (named for the international convention on Safety of Life at Sea) vessels are ships larger than 500 gross tonnes, commercial and passenger ships. How many of the other

sorts of ships currently operate in the Arctic, or their impact, is not well known. Several national delegations at IMO have asked for a paper giving information on the number of “non-SOLAS” ships operating in polar waters and reports of accidents and incidents, including those requiring search and rescue operations.



WWF, as part of a coalition of NGOs, believes there is still an opportunity to strengthen the Polar Code by addressing significant omissions including addressing non-ice strengthened vessels, smaller cargo and fishing vessels, and widening the scope of the environmental provisions. There are a number of omissions that affect the environmental impact from shipping in the north, including better oil and chemical spill preparedness and response, sewage and grey water discharge, and specific vessel routing measures. Here, we will focus on just three: heavy fuel oils; black carbon emissions; and the introduction of alien species through ballast and biofouling.

The use and carriage of Heavy Fuel Oil (HFO) presents one of the biggest risks to the Arctic marine environment. The Arctic Ocean Assessment identified the release of oil through spills or operational/illegal discharges as the most significant threat from ships in the Arctic. HFO is a very thick, viscous oil – what is left over when you’ve skimmed off the higher grade fuels. It accounts for three-quarters of the fuel used in Arctic shipping. The Arctic environment is particularly vulnerable to both operational and accidental spills of this kind of oil. It degrades slowly under Arctic

conditions, the evaporation and dispersion rates are low compared to lighter, refined fuels, it may emulsify once released into the marine environment, and it is impossible to clean up in ice covered conditions and with a lack of nearby response resources and infrastructure. It has a devastating effect on marine life, particularly as Arctic marine food webs are so simple. Due in part to lack of good quality hydrogeographic data, the chance of a catastrophic spill exists, and will be magnified with projected increased Arctic shipping. The effects of a spill of HFO in polar environments are rightly feared. The carriage and use (including for ballast) of this fuel has been banned in Antarctic waters south of 60 degrees south, and around parts of the Norwegian Arctic archipelago of Svalbard. But it continues to be used in the Arctic as a shipping fuel, and to be transported around the Arctic for other uses. Even at 2012 levels of Arctic shipping, a report prepared for the PAME working group estimated, "...a serious accident resulting in an oil spill could on average be expected once every 1.6 years."

Black carbon produced by Arctic shipping is an important issue. Local sources of soot are known to contribute to Arctic melting, and the more local the source, the more it contributes to the problem. Although shipping is currently thought to contribute only 5% of the black carbon load in the Arctic, that could increase to 20% by 2050 according to some projections of future shipping. The eight Arctic Council states are committed to working together on black carbon issues, having signed a framework agreement in Iqaluit, Nunavut, in early 2015 that says they will, "...adopt an ambitious, aspirational and quantitative collective goal on black carbon, and to consider additional goals, by the next Arctic Council Ministerial meeting in 2017."

Whether that collective goal will include promoting actions on limiting black carbon from shipping is not yet known. There is a real opportunity in this respect for the Arctic states to demonstrate leadership on this issue, thereby setting an example for shipping in Antarctic waters.

"Black carbon, or soot, is a tiny, solid particle that absorbs solar radiation, thereby warming the atmosphere. It is co-emitted with and interacts in the atmosphere with various other pollutants, some of which cause cooling. Black carbon typically stays airborne for about a week. Because this time is so short, its concentrations are highest close to its sources. Nonetheless, black carbon in itself is a major contributor to current global warming, following carbon dioxide and methane. In addition to its effects on atmospheric warming, black carbon that is deposited on snow or ice can cause surface warming and melting by absorbing solar radiation to a much greater degree than pristine ice or snow. In the Arctic, this warming effect is particularly strong in spring when the snow is melting and longer days mean more sunlight."

AMAP, 2015. Summary for Policy-makers: Arctic Climate Issues 2015. Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway. 16 pp, p. 4.

The third omission is the introduction of alien species to the Arctic, either in ballast water, or via biofouling, which both require fit for purpose polar operational measures to address translocations in such sensitive areas. As Arctic waters continue to warm, the numbers of alien species that can survive there will increase, including organisms such as the European green crab (nicknamed 'cockroach of the sea'), and the Japanese ghost shrimp. Shipping and in particular ballast water transfer is the single biggest vector of marine invasive species transfer. The Arctic marine environment is already stressed by climate change, acidification, and increasing industrial uses of the

offshore Arctic. Introducing invasive species further complicates survival for Arctic species and the whole food web built on the marine environment from tiny plankton to 100 tonne bowhead whales.

All of these omissions could still be considered in Step 2 of the Polar Code if the political will to do so exists. However, they will require backing by Parties to IMO. NGOs can take part in negotiations and make proposals, but need state support to take them further. Those Arctic Council states which are “port/coastal states” that is, the territories that would be most directly affected by shipping regulations, have an obvious interest in protecting their environments. Several other states influential at the IMO, such as China, Germany, India, Japan, Korea, the Netherlands, Singapore and the United Kingdom are also Arctic Council Observer states. In their applications to become members of the Council, and their subsequent justifications for their inclusion as Council observers, these states commonly stress their interests in preserving the Arctic environment. The Council itself is explicit in its expectations of Observers. One of the criteria for admission as an Observer is, “Have demonstrated a concrete interest and ability to support the work of the Arctic Council, including through partnerships with member states and Permanent Participants bringing Arctic concerns to global decision making bodies.”

There are other options to addressing some of these issues. The first is unilateral regulation within the exclusive economic zones of Arctic states (out to 200 nautical miles). This is where most shipping in the Arctic takes place. For instance, Canada is considered to have stringent rules governing shipping in its Arctic waters. The Arctic Waters Pollution Prevention Act has a zero discharge pollution policy, the Arctic Ice Regime Shipping System categorizes vessels according to their ability to handle different ice conditions, and the Zone/Date System defines opening and closing dates for entry and exit into the Canadian Arctic for various classes of ships.

There are also international instruments other than the Polar Code that deal with some of the wider environmental issues tied to shipping. For example a ban on the use of HFO (or a phasing out) could be accomplished via an amendment to MARPOL Annex I, Chapter 9, Regulation 43 rather than tied to revision of the Polar Code.

Another suggested alternative is to establish Particularly Sensitive Sea Areas (PSSAs) in the Arctic. As noted in a recent report, establishment of these areas can provide rules to protect the most vulnerable or important places in the offshore Arctic. “PSSAs can provide additional protection through measures that may reduce the likelihood and consequences of accidents (acute pollution), in addition to measures that targets operational emissions and discharges.” PSSA measures might also include restrictions on use/carriage of HFO.

However the regulation of the Arctic marine sector is accomplished, it should be implemented without delay, and the Polar Code is one instrument to accomplish that, as it is an already established umbrella process to address polar shipping issues.

We look to the Arctic states, together with the Arctic Council Observer states to plainly state their intention to bolster the code, and close the remaining governance gaps in Arctic shipping. We also recommend the regular review of the Code’s provisions, considering the rapidly changing Arctic marine environment.