Implementation of the IMO Polar Code: A practical perspective

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Summary

The IMO Polar Code was the first IMO instrument to use a combination of goal based and prescriptive requirements. This paper reviews the challenges IAATO members faced when implementing the IMO Polar Code, how those challenges were resolved and which elements continue to create challenges. While some elements of the Code were straightforward and easy to implement, particularly in terms of building new vessels, other aspects were more challenging – not least because there was a lack of experience on how to interpret requirements across Flag States , Classification Societies, ship owners and managers.

Towards Implementation

“Starting from scratch”

In the early days of the Polar Code, the interpretation of how to implement the goals and requirements was difficult as there were no previous examples or experiences to refer to. Operators, Flag States and Classification Societies were faced with developing standards with which to review the implementation requirements. This “starting from scratch” challenge manifested itself in several ways from both the technical and operational basis.

For example, each vessel Operator must complete an operational risk assessment in order to determine the operating envelope for their vessel. To try and assist with this, and to ensure some degree of harmonization in the data underwriting each Operators’ mandatory operational risk assessment, IAATO collaborated with Polarview (see ATCM XXXIX IP103 *Annual Report of the International Association of Antarctica Tour Operators*) to create a baseline database, POLARIS, which operators could access. This allowed a generic standard to be used when Operators were working through their risk assessments to determine their operating envelope and whether their vessel required a Polar Service Temperature (PST) – the latter being important as it prescribes whether additional measures and equipment would be required. Given that regular operation for most cruises to Antarctica during the Austral summer take place in air temperatures higher than –10°C Mean Daily Low Temperature (MDLT), it was confirmed that for most IAATO vessels a PST was not required.

Another example of the challenge of starting from scratch was that there were no precise standards clarified of the scope, amount, and characteristics of required equipment, such as Personal Survival Equipment (PSK) and Group Survival Equipment (GSK) –. As a result, it was left to the interpretation of the Operator. Additionally, Classification Societies and Flag States at that time did not have binding rules in place.

Application to existing versus new vessels – technical considerations

On existing vessels, the minor adjustments, and upgrades to required navigation and communication equipment (for example, the GNSS Compass, Iridium phone, ice lights) were rarely an issue as in most cases, these items were already installed on board. Equally, the requirements of Part II-A of the Code regarding pollution prevention measures did not, in most cases, require changes in procedures and equipment, as it met by either current legislation and/or best practice for most ships already.

In terms of equipment, the most pressing challenge for existing vessels was finding suitable storage space for the additional equipment required, whether that was Thermal Protective Aids (TPA) required for all souls onboard, or additional ration requirement in lifeboats and life rafts, or PSK and GSK where applicable. Some items (e.g., survival suits, tents, sleeping bags) are bulky and needed suitable protection and storage space to be readily available in an emergency. Passenger and crew cabins do not normally offer ample space and adequate space is not usually available next to survival crafts.

It is perhaps notable, that there was a pause in commissioning of vessels during the negotiation of the Polar Code as Operators waited to understand the final requirements before investing in new vessels. Once finalized, there was a surge in the number of vessels were commissioned where compliance with the goals and prescriptive requirements of the Polar Code were addressed by naval architects and ship builders. There were, however, some uncertainties with regards to the interpretation of various elements of the Code, in particular around the scope of survival equipment.

Operational Considerations

Operationally, the requirements for voyage planning did not cause any undue additional procedures or workload for those already experienced in operating in these environments. The most notable operational implementation challenge that persists to this day is around the certification of Bridge Officers, which requires both training courses and experience.

Initially, the opportunities to achieve mandatory basic and advanced polar training at certified training centers were very restricted, and there was a lack of experience within many of these institutions. While this situation seems to have eased, there is still a lack of certified training courses. There does seem to be many non-certified educational courses, which are helpful in a first instance but dos not solve the certification problem.

Furthermore, trying to ensure 60 days’ experience in polar or polar equivalent waters in a 5-year period can be challenging. It can be difficult to achieve initially and then to maintain that level of polar water time. To gain experience, various solutions are used such as doubling up of positions, or higher ranks signing on in lower positions in order to meet the time requirements.

While this can seem like a good solution, it can also create problems. For example, there is the potential for a lower rank officer, with the relevant time in polar waters and completed the advanced ice course to be promoted prematurely simply to fulfill the Polar Code requirement. Several Operators are now working with cadets onboard, in an effort to build the wider skill set, but this is a multi-year process and will take time to spread through the system.

To confuse the issue further, there is variable interpretation regarding what is considered as ‘equivalent approved seagoing service’. An officer from one country may be able to include a certain equivalent time in (non-polar) ice, while another officer – serving on the same vessel but from another country – is unable to use similar experience as qualifying days.

Conclusions

Without a doubt the Polar Code has forced Operators, particularly those new to polar water operations to take a close look at their operating environment and related risks. As such it has successfully strengthened the safety standards for SOLAS vessels operating in polar waters.

Perhaps inevitably, as a new instrument that is a combination of goal based and prescriptive, versus purely prescriptive, will have a period of challenges during implementation. There remains some uncertainty around the interpretation regarding some defined aspects (notably around the characteristics of survival equipment and Bridge teams’ certificates of competency). Much has been learned by Operators, Flag States and Classification Societies throughout the past six years and there would be value in sharing the experiences in implementation to smooth out some of these uncertainties and improve harmonisation in the implementation of the Polar Code.