INTERNATIONAL MARITIME ORGANIZATION

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DEVELOPMENT OF A MANDATORY CODE FOR SHIPS OPERATING IN POLAR WATERS

Draft framework to be used in the development of a mandatory Code for vessels operating in polar waters

Submitted by the United Kingdom

SUMMARY

Executive summary:	This document proposes a draft framework to be used in the development of a mandatory Code for vessels operating in polar waters.
Strategic direction:	5.2
High-level action:	5.2.1
Planned output:	5.2.1.1
Action to be taken:	Paragraph 11
Related documents:	MSC 71/20/11; DE 52/21; DE 51/28; MSC 79/8/2 and MSC 86/26

Introduction

1 The Maritime Safety Committee, at its eighty-sixth session, agreed to include a new work item on "Development of a mandatory Code for ships operating in polar waters", hereinafter referred to as the Polar Code, in the Sub-Committee's work programme and provisional agenda to DE 53.

2 This submission outlines a proposed framework to be used as a basis during the development of a mandatory Polar Code to replace the current Guidelines for Ships Operating in Polar Waters. The draft framework is included at annex.

3 The content and principles behind the framework described in this submission may incorporate elements of previous guidelines and frameworks but it is proposed that a new mandatory Polar Code is developed on a risk-based approach.

Background

4 MSC 71 decided that Antarctica would not be included in the IMO Guidelines for Ships Operating in Polar Ice-covered Waters; subsequently information was submitted by South Africa to MSC 79 on behalf of the Antarctic Treaty Consultative Parties suggesting that MSC/Circ.1056-MEPC/Circ.399: Guidelines for Ships Operating in Arctic Ice-Covered Waters be amended to include Antarctic ice-covered waters. The guidelines were further revised at DE 51 and DE 52 and were amended to apply to polar waters including both the Antarctic and Arctic. Following submissions to MSC 86 it was agreed to develop a mandatory Code for ships operating in polar waters.

Proposal

5 The United Kingdom proposes that the Polar Code should address all major aspects for ships operating in polar waters including construction standards, stability, provision of life-saving appliances, operational matters and navigation. An initial suggestion of aspects to be considered is included in the outline framework at annex.

6 The primary intent of the Polar Code should be the protection and safeguarding of life and the marine environment through the prevention of a casualty. This is to be achieved through ship design measures to ensure an appropriate level of robustness and, where necessary, the use of area restrictions and additional operational requirements such as the provision of ice navigators. All vessels operating in either the Arctic or Antarctic should, where necessary, be constructed to the standards of a Polar Class appropriate to the ice characteristics of their area of operation.

7 The secondary intent of the Polar Code should be to recognize the post-casualty survivability of vessels and relate this to the availability of search and rescue facilities within the area of operation. Account should be taken of damage stability standards, the provision of redundant essential equipment and the standards of life-saving appliances provided. A Polar Operations Table should be developed for each polar region in order to reflect the above considerations.

8 Consideration should be given to vessels with “Winterization” Class Notation when operating in low air temperatures but where there is no risk of structural damage from ice.

9 The Polar Code should provide additional clarification on the guidance given in MSC.1/Circ.1184 (Enhanced contingency planning guidance for passenger ships operating in areas remote from SAR facilities), as it is intended that this document continue to be referenced in the mandatory Polar Code.

10 The Polar Code should develop specific Shipboard Oil Pollution Emergency Plans (SOPEP) requirements for each polar region.

Action requested of the Sub-Committee

11 The Sub-Committee is invited to consider the framework proposed in this submission when developing a mandatory Polar Code.

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ANNEX

PROPOSED FRAMEWORK OF A MANDATORY POLAR CODE

Preamble

1 The Polar Code recognizes that reducing the risk of casualty occurrence requires an integrated "whole ship" approach encompassing the physical construction of the vessel, the machinery and equipment outfit and the manner in which polar operations are planned and conducted.

2 The Polar Code recognizes that the operational profile is different for both cargo and passenger vessels and hence the two vessel categories are treated separately by the Code where this is considered necessary.

1 General

This section should include definitions and functional requirements along with any other general subsections considered necessary during the development of the Code.

1.1 Application

The Polar Code is to be applied as a mandatory instrument to all convention vessels operating on international voyages in the Arctic and operating in Antarctic waters. It is proposed that elements of the Polar Code be applied to existing vessels where deemed necessary. It is proposed that all vessels operating in Antarctic waters are considered to be undertaking international voyages non-mandatory guidelines should be developed for a range of non-convention vessels.

1.2 Control

Control for passenger vessels is to be achieved using SOLAS chapter V, regulation 30, which relates to operational limitations for passenger ships to which SOLAS chapter I applies. It is proposed that all such vessels should be excluded from operations in polar regions until assessed against the requirements of the Polar Code. Supplementary time-limited Permit to Operate certification should be considered.

1.3 Review

Recognizing the immaturity of the Code and the potential for changes to ice coverage and concentration, it is proposed that the Polar Code be reviewed after four years.

2 Common requirements for both polar regions

2.1 Structures

It is proposed that all vessels operating in polar regions should, where necessary, be constructed to Polar Class standards appropriate to their area of operation.

2.2 Subdivision and stability

To include consideration of the extent of applied ice damages in addition to damage extents used in the assessment of damage stability. To also include any additional subdivision requirements pertaining to operations in polar waters and any requirements relating to allowances for ice accretion when evaluating intact and potentially damage stability.

2.3 Main and auxiliary machinery

To include consideration of machinery requirements for safe return to port. It is not proposed to re-visit the machinery requirements of Polar Class vessels. "Winterization" Class Notation aspects should also be considered.

2.4 Fire safety

To include any procedures which differ from standard practice. "Winterization" Class Notation aspects should be considered when developing this section.

2.5 Accommodation and escape measures

To include any additional accommodation design and escape considerations, including the location of muster stations to minimize time spent in the open air before entering the survival craft. "Winterization" Class Notation aspects should be considered when developing this section.

2.7 Life-saving appliances

To include requirements for emergency procedures for evacuation scenarios peculiar to the polar environment for example launching survival craft onto ice. To be informed by the outcome of the current IMO work programme item "Performance Standards for Recovery Systems".

2.8 Safety of navigation and navigational equipment

To include requirements for the reporting of vessel position, passage planning and any specific requirements for navigation and communication in polar waters. Also to include any considerations arising from the availability of hydrographic data.

2.9 Specialist crew

The requirements in this section are to relate to the provision of Ice Navigators and Ice Navigator certification requirements. Ice Navigator certification should be in accordance with proposed amendments to the STCW Code under discussion by the STW Sub-Committee; this section of the Polar Code should be informed by the outcomes of STW 41.

2.10 Additional equipment, spare parts and damage control

To include reserve supplies and spare machinery parts requirements together with necessary repair and damage control equipment. Any requirements for additional medical supplies should also be included.

2.11 Environmental protection

To include, where appropriate, additional measures relating to operations in polar waters required to ensure the protection of the marine environment. Reference should also be included to the Protocol on Environmental Protection to the Antarctic Treaty (1991). Polar specific SOPEP requirements should be developed.

3 Antarctic operations

3.1 Antarctic region and sub-sector definition

To include a map of the Antarctic region; showing definition of sub-sectors for the purposes of populating the Polar Operations Table. A sample map is included below; sub-sector definitions are for illustrative purposes only.

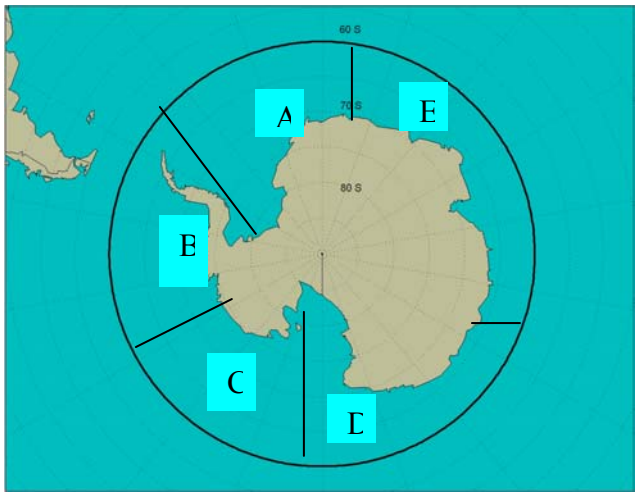

Figure 1: Antarctic region showing illustrative sub-sector divisions

3.2 Antarctic Polar Operations Table

It is proposed that the region be divided into operational sectors based on proximity to SAR facilities. A matrix should then be generated detailing the areas in which particular vessel types may operate vessel type definitions should take into account survivability in terms of damage stability standards, the availability of essential equipment and the standard of life-saving appliances including provision of fully or partially enclosed lifeboats. An example matrix is shown below:

	Area A	Area B	Area C	Area D
Vessel type 1	Y	Y	Y	Y
Vessel type 2	N	Y	Y	Y
Vessel type 3	N	N	Y	Y
Etc.				

Table 1: Sample Polar Operations Table

4 Arctic operations

4.1 Definition of the Arctic region

To include a map of the Arctic region; showing division and definition of sub-sectors; a sample map is included below; sub-sector definitions are for illustrative purposes only.

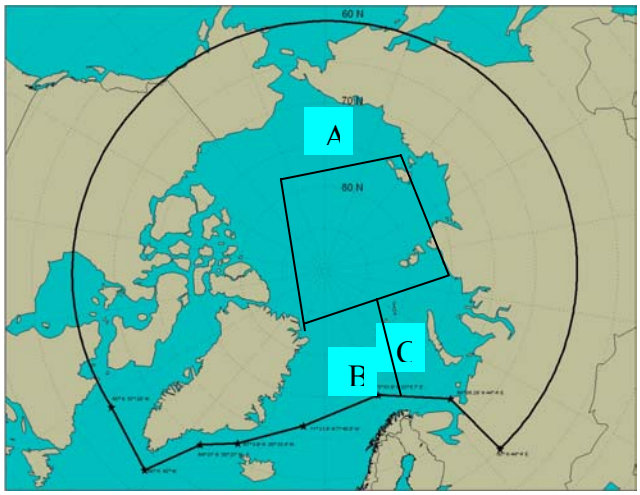

Figure 2: Arctic area showing illustrative sub-sector divisions

4.2 Arctic Polar Operations Table

To include a Polar Operations Table for the Arctic.

5 Non-mandatory provisions

To include non-mandatory requirements for non-convention vessels