

Paper for Consideration by NIPWG

Impact of the IMO Polar Code on NIPWG Work

Submitted by:	United States (NGA/NOS)
Executive Summary:	Impact of the IMO Polar Code on NIPWG work.
Related Documents:	Resolution MSC.385(94) (adopted on 21 November 2014)—International Code for Ships Operating in Polar Waters (Polar Code) Annex 6 to MSC 94/21/Add. 1 (27 November 2014)—Report of the Maritime Safety Committee on its Ninety-Fourth Session. NIPWG Letter 4/2015 (2 December 2015).

Introduction / Background

The International Code for Ships Operating in Polar Waters (Polar Code) takes effect on 1 January 2017 upon entry into force of the new Chapter XIV of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended. The Code provides a mandatory framework for ships operating in polar waters due to additional demands on ships, their systems, and operations which go beyond the current requirements of SOLAS 74

The HSSC has requested the appropriate WGs to consider improvements to the current IHO specifications or other actions which could facilitate the implementation of the provisions of the Polar Code relating to charting issues. For NIPWG concerns, the HSSC referred to **Chapter 9—Safety of Navigation** and to **Part 1-B, Additional Guidance to Chapter 9 (Safety of Navigation)**.

Analysis/Discussion

The Polar Code consists of the following parts:

1. **Introduction**—Goal, Definitions, Sources of Hazards, Structure of the Code, and Illustrations of the Antarctic area and Arctic waters.
2. **Part I-A (Safety Measures)**—17 chapters.
3. **Part I-B (Additional Guidance Regarding the Provisions of the Introduction and Part 1-A)**—12 sections.
4. **Part II-A—Pollution Prevention Measures**—5 chapters.
5. **Part II-B—Additional Guidance to Part II-B**—4 sections.

The purpose of the Polar Code is to provide technical and engineering guidance for the construction, equipping, manning/training, and operation of vessels in polar waters and the prevention of pollution in the polar environment. The Polar Code requires all vessels operating in the polar environment to possess on board a valid Polar Ship Certificate issued by “the Administration or by any person or organization recognized by it in accordance with SOLAS Regulation XI-1/1.” (Polar Code—Chapter 1.3).

A review of the Polar Code was conducted by NGA/NOS to determine if any other sections of the document, in addition to Chapter 9 and Part 1-B, might fall under the purview of NIPWG as assigned by the HSSC regarding the requirements imposed by **Chapter 11—Voyage Planning** and to **Part 1-B, Additional Guidance to Chapter 11 (Voyage Planning)**.

Conclusions

Based on the requirements for vessels to be in possession of a valid Polar Code Certificate prior to navigating in polar waters, NIPWG should only concern itself with providing the same type of nautical information to vessels operating in polar regions as it would to vessels operating outside polar regions. This would limit NIPWG involvement to the following items in the Polar Code:

1. **Part I-A (Safety Measures)**—Only the following Chapters:

Note: FOR REASONS OF ECONOMY, DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

- a. Chapter 9 (Safety of Navigation)—have equipment on board which can receive current ice information in the area of operation (paragraph 9.3.1).
 - b. Chapter 11 (Voyage Planning)—concentrating on the following:
 - i. Ice extent, type of ice, and icebergs in vicinity of intended route (paragraph 9.3.3).
 - ii. Historical ice and temperature information (paragraph 9.3.4).
 - iii. Places of refuge (paragraph 9.3.5).
 - iv. Marine mammal information (paragraph 9.3.6).
 - v. Relevant ship routing systems and vessel traffic services (paragraph 9.3.7).
 - vi. Designated protected areas (paragraph 9.3.8).
2. **Part I-B (Additional Guidance Regarding the Provisions of the Introduction and Part 1-A)**—Only the following Sections:
- a. Section 3.2—Guidance on Navigation with Icebreaker Assistance (vessel responsibilities and regulations when operating with icebreaker assistance)
 - b. Section 10—Additional Guidance to Chapter 9 (Safety of Navigation), especially concerning inadequate chart coverage (Section 10.2).
 - c. Section 12—Additional Guidance to Chapter 11 (Voyage Planning), considering the following:
 - i. Operations in the vicinity of marine mammals (Section 12.1).
 - ii. Minimizing impact on areas of cultural heritage and significance (Section 12.2).

Justification and Impacts

Is the previous work in developing Marine Protected Areas (S-122), Radio Services (S-123), Physical Environment (S-126), and Traffic Management (S-127) sufficient to satisfy the HSSC's request for NIPWG input into the Polar Code? Would NIPWG need to develop new Features and Attributes to deal with the requirements of Part I-A (Chapter 9 and Chapter 11) and Part I-B (Section 3.2, Section 10, and Section 11)?

Ice, ice information, and icebreaker operations are subjects that NIPWG has not made any significant development efforts. Many countries (Baltic nations, Canada, Russia) have set up procedures for vessels to request information concerning past and present ice conditions, including the types and formats of available ice information and the methods for obtaining this information, as well as information concerning vessel operations with icebreakers. The following questions arise:

1. How should ice and ice-related information be taken into account by NIPWG?
2. Which standard (S-123, S-126, or other) should this information be part of?

Conclusions

Only 13% of the Polar Code (5 sections out of 38) has the potential to affect NIPWG work. These areas of the Polar Code delineate the types of nautical information vessels operating in polar environments must be able to access.

NIPWG has developed test data sets for product specifications (S-122, S-123, S-126, and S-127) that would be used to model this information.

NIPWG would have to determine if new features and attributes would have to be developed concerning ice-related information and which standard would be appropriate for this information.

Action Required of NIPWG

The NIPWG is invited to:

- a. Note this paper.
- b. Determine if additional sections of the Polar Code would come under the purview of NIPWG.
- c. Determine how ice information should be handled.