



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Know the Earth... Show the Way... Understand the World

Impact of the IMO Polar Code on NIPWG Work

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IMO POLAR CODE

Full Title: International Code for Ships Operating in Polar Waters.

Effective Date: 1 January 2017

A mandatory framework for ships operating in polar waters due to additional demands on ships, their systems, and operations which go beyond the *International Convention for the Safety of Life at Sea* (SOLAS) 74, the *International Convention for the Prevention of pollution from Ships*, 1973, as modified by the Protocol relating thereto (MARPOL), as amended, and other relevant binding IMO instruments. (*Preamble, Paragraph 2*)



The Polar Code consists of five 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 I-A)**—12 sections.
4. **Part II-A (Pollution Prevention Measures)**—5 chapters.
5. **Part II-B (Additional Guidance to Part II-A)**—4 sections.



The main impact of the Polar Code is to provide technical and engineering guidance regarding vessels operating in the polar environment, as follows:

1. Vessel construction.
2. Vessel equipment.
3. Vessel manning and crew training.
4. Vessel operations.
5. Pollution prevention.

Out of a total of 38 chapters and sections of the Polar Code, 33 (87%) are devoted to engineering and technical specifications a vessel needs to follow in order to obtain a Polar Ship Certificate.



Vessels operating in polar areas must 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.” *Chapter 1.3*



What areas of the Polar Code apply to NIPWG?

1. Part I-A (Safety Measures):
 - a. Chapter 9 (Safety of Navigation).
 - b. Chapter 11 (Voyage Planning).
2. Part I-B (Additional Guidance Regarding the Provisions of the Introduction and Part I-A):
 - a. Section 3.2 (Guidance on Navigation with Icebreaker Assistance).
 - b. Section 10 (Additional Guidance to Chapter 9).
 - c. Section 12 (Additional Guidance to Chapter 11).



Part I-A (Safety Measures)

<u>Information Type</u>	<u>Polar Code Location</u>		<u>Product Specification</u>
Capability to receive current ice information	Chapter 9	Paragraph 9.3.1	S-126 (Physical Environment) S-123 (Radio Services)
Ice—Extent, type, and ice bergs along route	Chapter 11	Paragraph 11.3.3	S-126 (Physical Environment)
Historical ice and temperature information	Chapter 11	Paragraph 11.3.4	S-126 (Physical Environment)
Places of refuge	Chapter 11	Paragraph 11.3.5	S-127 (Traffic Management)
Marine mammal information	Chapter 11	Paragraph 11.3.6	S-122 (MPA)
Ship routing systems/ vessel traffic services	Chapter 11	Paragraph 11.3.7	S-127 (Traffic Management)
Designated protected areas	Chapter 11	Paragraph 11.3.8	S-122 (MPA)



Part I-B (Addition Guidance for Part I-A)

<u>Information Type</u>	<u>Polar Code Location</u>	<u>Product Specification</u>
Navigating with icebreaker assistance	Section 3.2	S-123 (Radio Services) ???
Inadequate chart coverage	Section 10.2	S-126 (Physical Environment)
Operations in the vicinity of marine mammals	Section 12.1	S-122 (MPA) ???
Minimizing impacts on areas of cultural heritage and significance	Section 12.2	S-122 (MPA) or S-127 (Traffic Management)



First Polar Code Certified Vessel



“*AHTS Magne Viking*, owned by **Viking Supply Ships**, is in compliance with the new *IMO Polar Code*, confirms **DNV GL** and the **Danish Maritime Authority** following a successful survey.”

marinelink.com (19 February 2016 edition)



First New-build Cruise Vessel for Polar Code Certification in Design Process

Designer: Foreship (Finland)
Builder: Lloyd Werft Shipyard (Germany)
Cruise Line: Crystal Cruises (Executive Class)
No. of passengers: 1,000 passengers
Length overall: 320 meters
Delivery: Late 2018

worldmaritimenews.com (2 March 2016 edition)

maritimematters.com (17 September 2015 edition)





Conclusions

- Only 13% of the Polar Code 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 display this information.
- No additional NIPWG work would be required to comply with the HSSC request.



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