DEVELOPMENT OF A MANDATORY CODE FOR SHIPS OPERATING IN POLAR WATERS

Polar Waters Operating Manual

Submitted by Cruise Lines International (CLIA)

SUMMARY

Executive summary: This document comments on the topic of a Polar Water Operating Manual (PWOM) and proposes a list of key elements which should be addressed and provides a draft general outline of PWOM requirements in the annex.

Strategic direction: 5.2

High-level action: 5.2.1

Planned output: 5.2.1.17

Action to be taken: Paragraph 5

Related document: DE 57/11/6

1 This document is submitted in accordance with the provisions of paragraph 6.12 of the Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies (MSC-MEPC.1/Circ.4/Rev.2) and comments on the document DE 57/11/6, the Report of the Correspondence Group for the Development of a Mandatory Code for Ships Operating in Polar Waters.

2 CLIA notes mention of the Polar Waters Operating Manual (PWOM) as outlines in both chapters 1 and 12 of the draft Code and we concur with both the provision for such a manual and the general discussion of the topic. However, actual debate on the PWOM has been relatively light and has not focused on the overall content of such a manual. The definition PWOM in chapter 1 has not been decided although there is general recognition of the need.

3 With this in mind, CLIA is of the view that the scope and content of the PWOM must be developed in conjunction with the other parameters of the draft Code so as to inform ship operators what to expect and to provide adequate time for compliance after adoption of the instrument and its coming into force.
4 A draft outline for the content of the required "Polar Waters Operating Manual" is attached in the annex. While there are over 18 elements listed, key elements address: Individual vessel risk assessment and mitigation measures; available onboard risk assessment tools; ship capabilities and limitations; polar qualifications, crew experience and training. Additional elements proposed include: navigation, medical needs, expedition activities, emergency preparedness, etc.

**Action requested of the Sub-Committee**

5 The Sub-Committee is invited to consider the proposed draft outline of a Polar Waters Operating Manual in the annex and take action as appropriate.

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ANNEX

[DRAFT] POLAR WATERS OPERATION MANUAL

Table of Contents
Document Control Changes and Revisions

1. INTRODUCTION TO THE POLAR WATERS OPERATION MANUAL

2. ADMINISTRATION APPROVAL OF THE POLAR WATERS OPERATION MANUAL

3. RISK ASSESSMENT SUMMARY FOR OPERATIONS IN POLAR WATERS
   3.1. Date of Risk Assessment
   3.2. Conducted by
   3.3. Polar and Ice Certificates applying and survey status
   3.4. Operating conditions considered
   3.5. Summary of risk assessment

4. POLAR WATER OPERATIONS RISK ASSESSMENT PROCESS & TOOLS
   4.1. Voyage Planning as per risk assessment
      4.1.1. Long range deployment planning per risk assessment
   4.2. Voyage Preparation
      4.2.1. Pre-season preparation
      4.2.2. Pre-cruise forecast and preparation

5. Voyage Execution
   5.1. Voyage risk assessment tool
      5.1.1. Hazards and undesired events identification
      5.1.2. Daily assessment

6. SHIP'S POLAR CHARACTERISTICS
   6.1. ship particulars and information
   6.2. Polar Certificate
   6.3. Ice Class Certificate

7. MASTER'S RESPONSIBILITY & AUTHORITY DURING POLAR OPERATIONS
   7.1. To maintain and operate the vessel in the condition described in the Polar Certificate and within any limitations imposed
   7.2. To navigate the vessel within the areas and conditions assessed in the Polar Water Operations Manual
   7.3. In the event that conditions encountered or forecast vary from those assessed in the Polar Water Operations Manual

8. POLAR QUALIFICATIONS, TRAINING, EXPERIENCE & OTHER RELEVANT DATA
   8.1. Risk Assessor
   8.2. Risk Assessment Reviewer
   8.3. Ice Master or Ice Pilot
   8.4. Relief to the Ice Master or Ice Pilot
8.5. Bridge Watch Officers
8.6. Bridge Watch keeping Crew
8.7. Engine room Watch Officers
8.8. Engine Watch keeping Crew
8.9. Zodiac Operations Crew
8.10. Hotel and other crew

9. SCOPE OF ARCTIC & ANTARCTIC SHIP OPERATIONS

9.1. Intended routeing
9.2. Intended timing of polar operations
9.3. Anticipated conditions
9.4. General considerations regarding
   9.4.1. Polar certificate limitations on polar operations
   9.4.2. Damage stability conditions & standards
   9.4.3. Vessel handling characteristics

10. AREA SPECIFIC GUIDELINES AND RESTRICTIONS (EXAMPLE)

10.1. Antarctica
   10.1.1. Ocean Regions
   10.1.2. Region A; West Antarctic Peninsula North of Argentinean Island including the South Shetland Islands
   10.1.3. Region B and B1; N Weddell Sea including the East part of Bransfield Strait
   10.1.4. Region C; Areas south of Argentinean Islands down to Marguerite Bay
   10.1.5. Region D; Ross Sea
   10.1.6. Region E; Most Part Southern Ocean
   10.1.7. Region F; Weddell Sea
   10.1.8. Special Area 1; Antarctic Sound
   10.1.9. Special Area 2; Lemaire Channel
   10.1.10. Special Area 3; Antarctic Circle Inside Passage, Including The Gullet
   10.1.11. Special Area 4; McMurdo Sound

10.2. Arctic
   10.2.1. Region AA; West Svalbard incl. Storfjord, West Novaya Zemlya and White Sea
   10.2.2. Region BA, Franz Josef Land and East Svalbard
   10.2.3. Region CA, Inner shore of Arctic Ocean excl. N. Coast of Greenland & NNE corner of Canada.
   10.2.4. Region DA, from the inner shore line out to the deep Arctic Basin.
   10.2.5. Region EA, Arctic Ocean
   10.2.6. Special Area 1A; Hinlopen and Heleysundet, Svalbard
   10.2.7. Special Area 2A; Southern Greenland
   10.2.8. Special Area 3A; Bellot Strait and James Ross Strait
   10.2.9. Special Area 4A; North Slope Alaska

11. ADDITIONAL CONSIDERATIONS FOR THE POLAR NAVIGATION ANTICIPATED

11.1. Equipment
11.2. Bridge management
11.3. Ice navigation
11.4. Trim guidelines
11.5. Use of searchlight
11.6. Ship handling/manoeuvring in the ice
   11.6.1. Navigation procedures for poorly charted areas Entering new uncharted areas
11.7. Use of the bow thruster
11.8. Riding anchor
11.9. Special situations
   11.9.1. Ice walks
11.10. Ice/weather forecasting
11.11. Severe weather procedures

12. ADDITIONAL COMMUNICATIONS CONSIDERATIONS FOR THE ANTICIPATED POLAR OPS

   12.1. Normal Operations
   12.2. Emergency Communications

13. ADDITIONAL MEDICAL/HEALTH CONSIDERATIONS FOR THE ANTICIPATED POLAR OPS

   13.1. Equipment
   13.2. Medical team special training
   13.3. Dealing with hypothermia

14. ADDITIONAL LIFESAVING AND FIREFIGHTING APPLIANCES AND EQUIPMENT CONSIDERATIONS FOR THE ANTICIPATED POLAR OPERATIONS

   14.1. Enhanced equipment
   14.2. Additional protection, maintenance and monitoring

15. ADDITIONAL ENGINE DEPARTMENT CONSIDERATIONS FOR THE ANTICIPATED POLAR OPS

   Shipyard/hull inspection Bunkering
   15.1. Maintenance considerations for extended Polar voyages
   15.2. Critical spares
   15.3. Pollution prevention
   15.4. Dewatering capacity
   15.5. Sea chest maintenance and ice accumulation prevention
   15.6. Fuels/oils for polar climates
   15.7. Hull vulnerabilities

16. EXPEDITION ACTIVITIES FOR THE ANTICIPATED POLAR OPERATIONS

   16.1. Crane operations
   16.2. Zodiac operations
      16.2.1. Briefing
      16.2.2. Experience and training
      16.2.3. Zodiac equipment including AIS-B
      16.2.4. Driving around wildlife
      16.2.5. Driving around icebergs
   16.3. Kayak operations
      16.3.1. Briefing
      16.3.2. Rescue zodiac
      16.3.3. Safety equipment
   16.4. Diving operations
   16.5. Hiking/shore excursions
17. ADDITIONAL ENVIRONMENTAL CONSIDERATIONS FOR THE ANTICIPATED POLAR OPS

17.1. MARPOL Special Area requirements
17.2. Ballast water
17.3. Sewage
17.4. Garbage
17.5. Additional emergency preparedness considerations for the anticipated polar operations
17.6. Drill schedule
17.7. Evacuation procedures
17.8. Damage control
17.9. Medical emergencies
17.10. Zodiac emergency
17.11. Kayaking emergency
17.12. Diving emergency
17.13. Grounding
17.14. Search and rescue/vessel assist
17.15. Fire
17.16. Loss of power
17.17. Loss of steering/propulsion
17.18. Man overboard/cold water survival
17.19. Stranding ashore
17.20. Severe weather