INTERNATIONAL MARITIME ORGANIZATION

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SUB-COMMITTEE ON SHIP DESIGN AND EQUIPMENT
54th session
Agenda item 13

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DEVELOPMENT OF A MANDATORY CODE FOR SHIPS OPERATING IN POLAR WATERS

Outcome of the 2010 Manila Conference

Note by the Secretariat

SUMMARY

Executive summary:	The document reports on the outcome of the 2010 Manila Conference with regard to the agenda item
Strategic direction:	5.2
High-level action:	5.2.1
Planned output:	5.2.1.2
Action to be taken:	Paragraph 4
Related documents:	STCW/CONF.2/DC/3; STCW/CONF.2/DC/4, resolution 11

1 Major revisions to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (the STCW Convention) and its associated Code (the STCW Code) have been adopted at the Conference of Parties to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, Manila, the Philippines, from 21 to 25 June 2010, thereby ensuring that the necessary global standards will be in place to train and certify seafarers to operate technologically advanced ships for some time to come.

2 The amendments, known as "the Manila amendments to the STCW Convention and Code", are set to enter into force on 1 January 2012 under the tacit acceptance procedure and are aimed at bringing the Convention and Code up to date with developments since they were initially adopted in 1978 and further revised in 1995; and to enable them to address issues that are anticipated to emerge in the foreseeable future.

3 The amendments adopted include new training guidance for personnel serving on board ships operating in polar waters, the text of which is set out in annex 1. The Conference also adopted a number of resolutions, including Conference Resolution 11 on Measures to ensure the competency of masters and officers of ships operating in polar waters, the text of which is set out in annex 2.

Action requested of the Sub-Committee

4 The Sub-Committee is invited to take the information provided in the document and its annexes into account when continuing its work on the development of a mandatory code for ships operating in polar waters.

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ANNEX 1

AMENDMENTS TO THE SEAFARERS' TRAINING, CERTIFICATION AND WATCHKEEPING (STCW) CODE ADOPTED BY THE 2010 MANILA CONFERENCE

PART B
Recommended guidance regarding provisions of the STCW Convention and its annex

CHAPTER V
Guidance regarding special training requirements for personnel on certain types of ships

Section B-V/g*
Guidance regarding training of masters and officers for ships operating in polar waters**

1 It is important that masters, officers in charge of a navigational watch and officers in charge of an engineering watch on board ships operating in polar waters should have relevant experience and training, as follows:

.1 Prior to being assigned duties on board such ships:

.1.1 For masters and officers in charge of a navigational watch, the training should provide basic knowledge on at least the subjects given in paragraphs 2 to 11 hereunder; and

.1.2 For officers in charge of an engineering watch, the training should provide basic knowledge on at least the subjects given in paragraphs 3, 6, 10 and 11 hereunder.

.2 Masters and Chief Engineer Officers should have sufficient and appropriate experience in operating ships in polar waters.

Ice characteristics – ice areas

2 Interpretation of different ice-charts and awareness of limitations in meteorology and oceanography data, ice physics, formation, growth, ageing and stage of melt; ice types and concentrations; ice pressure; friction from snow-covered ice; implications of spray-icing and icing up; precautions against icing up and mitigation of consequences; ice regimes in different regions and different seasons, including the differences between the Arctic and the Antarctic; recognition of consequences of rapid change in ice and weather conditions; movement of icebergs and pack ice.

Ship's performance in ice and cold climate

3 Vessel characteristics; vessel types, hull designs; ice-strengthening requirements; ice class in different classification societies – polar class and local regulations; limitations of ice classes; winterization and preparedness of vessel; low-temperature system performance.

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* Note there are no corresponding regulations in the Convention or sections in part A of the Code for sections B V/a, B-V/b, B-V/c, B-V/d, B-V/e, B-V/f and B-V/g.

** Refer to resolution A.1024(26) on Guidelines for ships operating in polar waters.

Voyage and passage planning for a ship in ice[***]

4 Development of safe routeing and passage planning to avoid ice where possible, including interpreting various forms of ice imagery and data to assist in the preparation of a strategic passage planning; entering ice from open water to avoid icebergs and dangerous ice conditions; navigation, determining when it is safe or not safe to enter areas containing ice or icebergs due to darkness, swell, fog or pressure ice.

Operating and handling a ship in ice

5 Preparations and risk assessment before approaching ice-infested waters; unassisted operation of vessels with different ice-class in different ice-types; safe speed in the presence of ice and icebergs; communications with an icebreaker and other vessels; navigation in various ice concentrations and coverage; awareness of the increase in energy of movement; use of icebergs for shelter and access through packed ice.

6 Use of different type of propulsion system and rudder, including awareness of system strength and capacity limitations; use of heeling and trim systems, engine loads and cooling problems.

Regulations and recommendations

7 Local requirements for entering different regions, including the Antarctic Treaty; international regulations and recommendations.

Equipment limitations

8 Use of and hazards associated with terrestrial navigational aids in polar waters; high latitude compass errors; discrimination of radar targets and ice-features in ice-clutter; limitations of electronic positioning systems at high latitude; limitations in nautical charts and pilot descriptions; limitations in communication systems.

Safety precautions and emergency procedures

9 Availability of hydrographic data sufficient for safe navigation; precautions when navigating in poorly charted waters; limitations of search and rescue readiness and responsibility, including GMDSS area A4 and its SAR communication facility limitation; awareness of contingency planning; knowledge of towing procedures; value of contact with other ships and local SAR organization; recognizing dangers when crews are exposed to low temperatures; procedures and techniques for abandoning the ship and survival on the ice; crew fatigue problems due to noise and vibrations; carriage of additional resources such as bunkers, food and extra clothing; awareness of the additional severity of consequences of incidents in polar waters.

10 Establishing safe working procedures; awareness of the most common hull and equipment damage and how to avoid them; fire-fighting systems limitations.

[***] Refer to resolution A.999(25) on Guidelines on voyage planning for passenger ships operating in remote areas.

Environmental considerations

11 Sensitive sea areas regarding discharge; areas where shipping is prohibited or should be avoided; special areas in MARPOL; oil-spill equipment limitations; plan for coping with increased volumes of garbage, bilge water, sludge, sewage, etc.; consequences of pollution in a cold climate.

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ANNEX 2

CONFERENCE RESOLUTION 11 OF THE 2010 MANILA CONFERENCE

Resolution 11

Measures to ensure the competency of masters and officers of ships operating in polar waters

THE 2010 MANILA CONFERENCE,

HAVING ADOPTED the Manila amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, and to the Seafarers' Training, Certification and Watchkeeping Code, as amended (STCW Convention and Code),

NOTING that, as a result of the increase in maritime traffic in polar waters, several accidents have occurred there in recent years,

NOTING FURTHER the remoteness and the singular hydrographic, oceanographic, meteorological and glaciological characteristics of polar waters, to the extent that search and rescue, care and evacuation of persons and addressing the consequences of pollution entail considerable operational and logistical problems,

RECOGNIZING that the operation of ships sailing in polar waters calls for specific education, training, experience and related qualifications for masters and officers on board such ships,

RECOGNIZING ALSO the efforts made by governments to train masters and officers through courses dedicated to this particular class of navigation,

RECOGNIZING FURTHER both the *Guidelines for ships operating in polar waters*[*] and the need for mandatory training requirements when the Polar Code under development by the International Maritime Organization is adopted,

RECOMMENDS that governments adopt measures conducive to ensuring that masters and officers of ships, which operate in polar waters, have appropriate training and experience, so that they are able to:

.1 plan voyages to polar waters, taking into account glaciological, hydrographic, oceanographic and meteorological factors;

.2 navigate safely in polar waters, in particular in restricted ice-covered areas under adverse conditions of wind and visibility; and

.3 supervise and ensure compliance with the requirements deriving from intergovernmental agreements and with those relating to safety of life at sea and protection of the marine environment.

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[*] Refer to resolution A.1024(26) – Guidelines for ships operating in polar waters, adopted by the Assembly of the International Maritime Organization on 2 December 2009.