



Polar Code update

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ANNEX 6

RESOLUTION MSC.385(94) (adopted on 21 November 2014)

INTERNATIONAL CODE FOR SHIPS OPERATING IN POLAR WATERS (POLAR CODE)

**Entry in to force on 1 January 2017 for new ships
and
1 January 2018 for existing ships**



Background, status and plans

- Agenda item at IRSO 2014 and 2015
- Not very much IRSO members collaboration yet.
 - Maybe not necessary?
 - Relatively straight forward process?
- In any case interesting to know how the members are progressing and to share findings, information and work being done to simplify the process and limit the work load for each and everyone
- NIWA operations manual has been distributed to interested parties
- IMR has shared and will share any information, findings and documents we develop for the Polar Code implementation in our fleet.



PC and ocean going vessels (Cat C)

- For IMR the oceangoing RVs "G.O. Sars", "Johan Hjort" and "Kristine Bonnevie" will be PC certified as Category C vessels.
- They operate mainly in the Barents Sea part of the Arctic.
- We have checked all three vessels against the Polar Code, using a PST (Polar Service Temperature) of -25°C
- PST shall be defined based on mean MLT (Mean Day Low Temperature) over the last 10 years. It turns out that such data is not available from the Met office. We have therefore set PST to -25°C for Cat C vessels and -35°C for "Kronprins Haakon" as Cat A vessel
- In general we have not encountered any major requirements for modifying or upgrading the vessels (machinery, deck equipment, safety equipment, navigation and communication equipment)
- We have checked the ice accumulation limits regarding vessel stability with the vessel designers and they all meet the PC Cat C requirements
- We have also checked with the crew of the vessels if they have any experience from winter cruises in the Barents Sea to see if there any modifications/upgrades to be done due to practical experience, but no major findings.



Findings for Cat C vessels

- Install extra search lights designed for ice operations
- Extra GPS/gyro on "Johan Hjort" and "Kristine Bonnevie"
- Cover fire hydrants, pilot ladders and other deck equipment that are exposed to icing with heated canvas or other types of protection, or introduce regular ice removal from mission critical equipment and safety equipment by the crew during icing conditions
- Heating of antenna foundations and antennas?
Introduce heated antenna covers?
- Use insulation around emergency battery boxes located on deck.
- Procure VHF hand held radios with aeronautical frequencies
- New STCW 95 regulations expected next year which includes Polar Code training requirements
- Necessary with some adjustments of garbage handling manuals and procedures for release of sewage for "Johan Hjort" and "Kristine Bonnevie"
- Polar Code for new "Dr. Fridtjof Nansen" will be implemented if and when the vessel will enter the Arctic or Antartic areas.



Category A vessel – "Kronprins Haakon"

- Designed iaw Polar Code
- Turns out that safety equipment on the market is not certified for -35 ° C, but Norwegian Maritime Administration accepts the current standard equipment
- PC require 5 days of provisions in the lifeboats.
Current design do not have room for that much food/water.
We are in contact with the supplier of life boats to "KH" to make the necessary modifications.
- Working on the contents for the "Group survival container" and the "personal survival kits" and where to store the equipment on board etc
- Since polar bears are a risk in the Arctic we have to train/certify the crew and key cruise participants in handling of rifles
- An issue is safety and responsibilities regarding personell operating on the ice at a distance from the vessel. Still the captains responsibility or not?
- Polar Water Operation Manual for "KH" is well under way. Will be used as "starting point" for development of PWOM for the other ocean going vessels



Polar code workshop in 2017?

If sufficient interest, we will arrange a PC workshop in April 2017 in Muggiano, Italy (close to La Spezia), including a visit on board "Kronprins Haakon".

