



## INTERNATIONAL ICE CHARTING WORKING GROUP (IICWG)

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February 21, 2017

To: Ice Service Heads

### **Re: Ice Chart Coding to Support IMO Polar Code Risk Assessment**

You are all aware that the IMO Polar Code came into force on January 1 of this year for ships intending to operate in the Polar Regions as defined by the IMO. Ships constructed after January 1, 2017 must comply with the safety part of Polar Code when delivered. Ships constructed before 2017 must comply by the first intermediate or renewal survey, whichever occurs first, after January 1, 2018.

For the complete text of the Polar Code see:

[http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Maritime-Safety-Committee-\(MSC\)/Documents/MSC.385\(94\).pdf](http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Maritime-Safety-Committee-(MSC)/Documents/MSC.385(94).pdf).

For an easy to read introduction, see <https://www.dnvgl.com/news/the-imo-polar-code-in-force-beginning-1-january-2017-how-to-comply-83230>.

At IICWG-XVII in October, a session was held on the IMO Polar Code that featured presentations by a number of experts. Of greatest relevance to the Ice Services is the requirement of the Polar Code that ships in Polar Regions have a “methodology to assess operational capabilities and limitations in ice”. To support the Polar Code, the IMO has developed MSC.Circ/1519 *GUIDANCE ON METHODOLOGIES FOR ASSESSING OPERATIONAL CAPABILITIES AND LIMITATIONS IN ICE*. The appendix to the annex of MSC.Circ/1519 includes the methodology *POLAR OPERATIONAL LIMIT ASSESSMENT RISK INDEXING SYSTEM (POLARIS)*. POLARIS was described in detail by Rob Hindley, from Lloyd’s Register of Shipping, at IICWG-XVII. (See [ftp://sidads.colorado.edu/pub/projects/noaa/iicwg/IICWG-2016/Hindley\\_POLARIS\\_Risk\\_Assessment\\_Tool.pdf](ftp://sidads.colorado.edu/pub/projects/noaa/iicwg/IICWG-2016/Hindley_POLARIS_Risk_Assessment_Tool.pdf))

POLARIS is a relatively simple tool that calculates a Risk Index Outcome based on the ship’s ice classification and the **partial concentrations of ice types in an ice regime**. This is where the Ice Services have a major role to play. When planning a vessel’s route, whether strategically or tactically beyond the view from the bridge, an ice master needs to know all of the ice types, and their partial concentrations, in an area. The international symbology for ice charts (the “egg code”) provides for this information at its core – although not all national ice charts include it.

At IICWG-XVII, the Group voiced its support for the inclusion of partial ice concentrations and types (stages of development) on all ice charts and adopted an action item to encourage the practice:



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***17-8: IICWG to encourage all Ice Services to standardize on the reporting of partial concentrations and stages of development on their ice charts to ensure consistent use in POLARIS.***

Further to this action, the IICWG recommends to all Ice Service Heads to take action to implement this practice, if you are not already doing so, prior to the next ice navigation season in your area of responsibility. It may require some training for your analysts, some technology development for your GIS, or access to additional satellite data. We are certain you can count on support from the Ice Services that are already well experienced in partial concentration analysis and presentation.

This is our opportunity to support the IMO and enhance the safety of Polar Navigation.

If you have any questions or seek some assistance, please don't hesitate to contact the IICWG Secretariat at [john.falkingham@rogers.com](mailto:john.falkingham@rogers.com).

Sincerely,

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