

HENSOLDT - The new Sensor House

Russell Gould - Managing Director, Kelvin Hughes Ltd., HENSOLDT



Detect and Protect

HENSOLDT: The new Sensor House

We bring 100 years of defence and security electronics under one roof



HENSOLDT stands for:

- The spirit of **technological progress** and the continuous quest for **premium solutions** reined in by a solid sense of **efficiency**
- A strong corporate heritage from leading European Defence companies
- An extensive sensors portfolio which establishes a broad technological basis from which to fulfil the ever-changing customers' needs



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"HENSOLDT is a global partner for competitive premium electronics and solutions. Our engagement in the Arctic is driven by contributing to developing a safer society and sustainable operations for all stakeholders in the region.

With our broad product portfolio, we are able to assist projects in the arctic region to secure safe operations by providing situational awareness and thus to enable correct, precise and well planned actions in this extremely delicate natural environment."

Thomas Müller, CEO



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We focus on Situational Awareness

Capitalizing on more than hundred years of experience in high-performance technology, **HENSOLDT** is the

NEW Sensor House providing situational awareness for optimum safety and security in the air, at sea, and on land.





Detect and Protect

Kelvin Hughes

250 Years of Navigation and Situational Awareness expertise

Kelvin Hughes produces highly

sophisticated, ultra-reliable radar and display technology, including ice detection assist.



"Our Kelvin Hughes' MantaDigital radar with Ice Navigator software has surpassed all expectations. In a difficult Arctic environment it has proven to be an excellent tool in assisting the bridge team to select the safest passage through ice infested waters."

Craig Whiteway, Marine Operations Superintendent, Woodward Group. "It displays the channel in 3D and it is easier to follow than on a conventional display. In open sea the ice mode helps us to see and find the ice walls."

Mikko Lindqvist, Master of the Baltic Excellent







Detect and Protect

Kelvin Hughes

250 Years of Navigation and Situational Awareness expertise

Through CIRM, and its status at IMO, we have been active in helping establish the IMO "Polar Code"







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IMO Polar Code: Overview

Overview

The International Code for Ships Operating in Polar Waters (the Polar Code) is a new code adopted by the IMO.

The Code acknowledges that polar waters may impose additional demands on ships beyond those normally encountered.

Ships trading in the polar regions already have to comply with all relevant international standards adopted by IMO.

The Polar Code highlights the potential hazards of operating in polar regions, including ice, remoteness and rapidly changing and severe weather conditions, and provides goals and functional requirements in relation to ship design, construction, equipment, operations, training, and search and rescue, relevant to ships operating in Arctic and Antarctic waters.

HOW THE **POLAR** CODE PROTECTS THE ENVIRONMENT





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OIL

Polar Code Entry-into-force

Because it contains both safety and environment related provisions, the Polar Code is mandatory under both SOLAS and the International Convention for the Prevention of Pollution from Ships (MARPOL).

The date of entry into force of the SOLAS amendments was 1 January 2017. It applies to new ships constructed after that date.

Ships constructed before 1 January 2017 are required to meet the relevant requirements of the Polar Code by the first survey after 1 January 2018.



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Polar Code: Nav/Comms Equipment

Whilst the IMO's Polar Code has entered into force, specific requirements for the design, construction and installation of navigation and communication equipment are not yet defined, hence IMO is developing "guidance"

Guidance scheduled for completion in 2019

For example,

GNSS receiver

The GNSS-antenna should be protected against ice coating Inmarsat ship earth stations Out of satellite coverage in extreme latitudes

Echo-sounder

The sensor of echo-sounding equipment should be protected against mechanical shock

Gyro compass

If the gyro is intended for use in polar waters, the performance in latitudes beyond 70° should be additionally validated

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How many ships are affected by the Polar Code?

Although it sounds simple to ask how many ships will be affected by the Polar Code, it is in fact something of a "how long is a piece of string" question.

The number of ships of 'Ice class' is relatively small, and how many will be involved in Polar Code voyages depends more on economics than ship numbers.

The general industry feeling is that the number of ships likely to be affected falls somewhere in the 300-3000 band, but that it's more likely to be at the lower end of that band.

POLAR Code

INTERNATIONAL CODE FOR SHIPS OPERATING IN POLAR WATERS

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