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To: Related departments in CCS Headquarters, each plan approval center, each branch (office), marine product manufacturers, shipping management companies and ship owners

## Technical Notice on guidelines for navigation and communication equipment Intended for use on ships operating in polar waters

### 一. Background

The Maritime Safety Committee (MSC) of International Maritime Organization (IMO), at its 101st session, approved the guidelines for navigation and communication equipment Intended for use on ships operating in polar waters (MSC.1/Circ.1612) in 14 June 2019.

The aim of this Guidance is to enhance the safety and efficiency of navigation and communication equipment intended for use on ships operating in polar waters by giving recommendations on general requirements and specific performance standards for navigation and communication equipment.

### 二. Main contents

**Application:** this Guidance is applicable to navigation and communication equipment intended for use on ships operating in polar waters (details please see attached) .

These guidelines are newly provided, which major content included as follows:

1. General part (Module A) which should be applied to equipment or parts of it exposed to the environmental conditions of polar waters.

#### 1.1 Temperature

If equipment or parts thereof are exposed to the environmental conditions of polar

waters, the navigation and communication equipment should keep its specific performance requirements as far as possible. Exposed portable equipment should be subject to testing in accordance with IEC60945 8.4 low temperature requirements.

### 1.2 Ice accretion

If equipment or parts thereof are exposed to ice accretion, the navigation and communication equipment should keep its specific performance requirements, as far as possible. Physical protection, operational protection or product design could be used to ensure that product performance is not affected by ice accretion.

### 1.3 Handling of equipment dependent on batteries

The maximum expected time of rescue should never be less than 120 h.

### 2. The second module (Module B) is addressing equipment specific topics.

If equipment or parts (e.g. antennas) thereof are exposed to ice accretion, it should be protected against ice accretion. The performance in latitudes beyond 70° of magnetic compass, gyro compass and GNSS-THD should be additionally validated.

### 3. The third module (Module C) is addressing the handling of incorrect data of impaired equipment.

Some sensors (e.g. heading, speed) may not work with the accuracy defined in the relevant standards. There should be an automatic warning or a clear indication (e.g. heading or track control system).

### 4. Appendix: survival craft and rescue boat communications capabilities.

The ability of mandatory communication equipment for use in survival craft and rescue boats to maintain the ready for operation state within the maximum expected time of rescue at the Polar Service Temperature (PST) assigned to the ship, and, after that, to be capable to perform its functions at the PST assigned to the ship for the operating time not less than that specified in respective existing performance standards.

This Circular is a non-mandatory technical document. The details of the relevant technical requirements, please see the original annex of the MSC.1/Circ.1612.

*This Notice is published on the CCS website ([www.ccs.org.cn](http://www.ccs.org.cn)) and will be transmitted to relevant ship owners, shipyards, marine product manufacturers, ship designers*

*and shipping management companies by the CCS implementing survey units and plan approval centers. Please feel free to contact the Marine Products Dept. of the CCS Headquarters ([ps@ccs.org.cn](mailto:ps@ccs.org.cn)) for any inquiry in the implementation.*

ANNEX 1:

MSC.1/Circ.1612—Guidelines for navigation and communication equipment intended for use on ships operating in polar waters.