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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Global maritime distress and safety system - Performance and
test requirements for automatic identification system search
and rescue transmitter
(English Translation)**

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Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents"

Drafting:

This document is modified to adopt IEC 61097-14:2010 "Global Maritime Distress and Safety System (GMDSS) Part 14: AIS Search and Rescue"

Transmitter (AIS-SART) operation and performance requirements, test methods and required test results":

Compared with IEC 61097-14:2010, this document has made the following structural adjustments:

---A chapter of "Terms, Definitions, and Abbreviations" has been added, and the numbering of subsequent chapters has been postponed;

---6:2 of this document corresponds to 5:2:1, 5:2:2 and 5:2:3 of international standards;

---The clauses under 8:1 of this document have been added with clause numbers 8:1:1~8:1:5, corresponding to 7:1 of the international standard;

---8:3 and 8:4 of this document correspond to 7:4 and 7:3 of international standards respectively;

---Article numbers 9:2:2:1~9:2:2:7 have been added under 9:2:2 of this document, corresponding to 8:2:3~8:2:8 of international standards;

---Deleted Appendix A:

The technical differences between this document and IEC 61097-14:2010 and their reasons are as follows:

---Deleted the description of the relationship between IEC 61097-14:2010 and other international standards in the "scope" content, and added information about the standard

Scope of application;

---Added ITU "Radio Regulations 2020" as a normative reference document (see Chapter 2);

---Added GB/T 16162 as the guideline reference standard for "terms and definitions", and added the term "self-organizing time division multiple access"

"Enter" and "Beidou Satellite Navigation System" and their definitions (see Chapter 3);

--- Added the requirement of "compatible with Beidou satellite navigation system" (see 4:2, 5:1:6);

---Added "The battery used for replacement should comply with the battery model specified by the manufacturer to adapt to the AIS-SART: Battery replacement

Afterwards, the battery replacement time should be recalculated and marked (see 4:3);

---Deleted the recommendation in "Activation Mode" regarding the modification of ITU-RM:1371 to navigation status 14, due to the new version of ITU-R

M:1371-5 has completed the above modifications;

- Modified the expression of sub-message content in "activation mode" to make the content comply with the provisions of ITU-RM:1371-5 (see 4:7);
- Modified the language requirements in the "label", changing the original text "(Use English)" to "(Use Chinese and English)" (see 4:8);
- Added the content of "Product name, model and manufacturer name" and "Ship Inspection Mark" in "Label" (see 4:8);
- Modify the language requirements in the "Instructions" and add the requirement that "the instructions should be provided in Chinese and English versions" (see 4:9);
- Deleted a test carried out under normal conditions due to duplication of two clauses in the international standard (see IEC 61097-14:2010 7:1);
- Deleted IEC 61097-14:2010 "Appendix A Test results to verify AIS-SART coverage performance" because of the SART coverage performance test content does not need to be described in the standard:
The following editorial changes have been made to this document:
 - In order to adapt to my country's technical standards, the standard name is changed to "Global Maritime Distress and Safety System Automatic Identification System Search and Rescue Launcher" Performance and test requirements";
 - Modify the presentation of equipment antennas and illustrations (see 4:2);
 - Deleted the footer note about "Manufacturer ID" (see 3:4 of IEC 61097-14:2010);
 - Deleted the footnote about "NRZI" (see Table 2 of IEC 61097-14:2010);
 - Modify the expression of the calculation formula of the power amplifier output power difference ratio (Pd) (see 6:5);
 - Added "radiated power" test installation diagram (see Figure 4);
 - Added two explanation notes of "P-20" and "P55" conduction power (see Table 6):

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the performance requirements, technical requirements, and testing requirements for the Global Maritime Distress and Safety System---Automatic Identification System Search and Rescue Launchers:

The requirements and result requirements are described, and the testing methods including performance testing, physical layer testing, and link layer testing are described:

This document applies to the design, production and testing of global maritime distress and safety systems---automatic identification system search and rescue launcher products:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document:

GB/T 16162 Global Maritime Distress and Safety System (GMDSS) Terminology

IEC 60945 General requirements for maritime navigation and radiocommunication equipment and systems Test methods and required test results (Mari-

Note: GB/T 15868-1995 Global Maritime Distress and Safety System (CMDSS) general requirements and test methods for marine radio equipment and maritime navigation equipment and required test results (idtIEC 60945:1994):

IEC 61108 (all parts) Maritime navigation and radiocommunication equipment and systems Global Navigation Satellite Systems (GNSS) [Mari-
(GNSS)]

Note: GB/T 18214-1-2000 Global Navigation Satellite System (GNSS) Part 1: Global Positioning System (GPS) Receiving Equipment Performance Standards and Tests

Methods and required test results (idtIEC 61108-1:1996):

ITU-RM:1371-5 Technical characteristics of automatic identification systems using time division multiple access in the VHF maritime mobile band (Technical

ITU Radio Regulations (2020) (RadioRegulations)