

ICS 33.060.01
CCS M 30



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

GB/T 20068-2025

Replacing GB/T 20068-2017

**Technical requirements of shipborne automatic identification
system (AIS)**

船载自动识别系统 (AIS) 技术要求
(English Translation)

Issued on: October 31, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

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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 supersedes GB/T 20068-2017 "Technical Requirements for Shipborne Automatic Identification Systems (AIS)" and is consistent with GB/T 20068-2017.

Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) The content regarding "AIS-restricted base stations" has been removed (see section 4.2.1.3 in the 2017 version);
- b) Added content on "AIS Receiving Station" (see 4.2.1.3);
- c) The requirement in the AIS search and rescue transmitter that "AIS-SART stations should use pulse transmission messages 1 and 14" has been changed, and the following changes have been made.

The definition of "pulse" (see 4.2.1.6, 11.1, 11.5; 4.2.1.6, 12.1, 12.5 in the 2017 edition);

d) Added "Personnel Search and Rescue Beacon - AIS Component (AIS-MOB)" and "Emergency Radio Position Beacon - AIS Component (EPIRB-AIS)".

The provisions (see 4.2.1.7, 4.2.1.8);

e) The definition of AIS stations has been changed (see 4.4.1, 2017 version 4.4.1);

f) The wording of "signal station" has been changed to "time base" (see 4.4.3, 5.5.1.4, and 4.4.3 in the 2017 version).

5.5.1.4);

g) Added provisions for "long-distance broadcast messages" (see 4.4.3, 6.2.3.1, 6.2.3.3, 6.2.3.4, and 10.2.3);

h) The regulations for "reporting intervals for non-Category A vessels" have been amended (see 4.4.3, 2017 version of 4.4.3);

i) Added provisions for a "dedicated long-distance AIS channel" (see 4.5, 5.4.2.2, 5.4.2.3, 5.4.2.6.1, 5.6.1.4, 6.2.3.1,...).

6.2.3.3, 6.2.3.5);

j) Added some provisions for "Type B 'SO'" (see 5.3.4.1, 5.5.1.4.3.3, 5.6.2, 5.6.1.1.3.3, 6.2.2, 10.2.5, 10.2.7,...

10.2.11, 10.2.13, 10.2.22);

k) Added some provisions to "Message 22" (see 5.4.2.2, 5.4.6, 5.6.1.3);

l) DSC-related content has been removed (see sections 5.4.2.2, 5.4.2.5, 5.4.2.7, 5.4.2.9, 5.6.1.3, and Chapter 6 of the 2017 version).

10.3.1, 10.3.2, 10.3.5.4, 10.4.1.2.1, 10.4.1.2.7, 10.4.3.2, 10.4.3.3, 10.4.5, 11.3.17);

m) The provision regarding "buffer areas" has been removed (see 5.4.2.6.2 in the 2017 version);

n) The relevant provisions regarding the "storage time of channel management command actions" have been changed (see 5.4.2.9, 2017 version 5.4.2.9);

o) Changed the station requirement for "in assignment mode, when the required RI for a heading change is shorter than the assigned RI".

(See 5.4.4.2.2, 2017 version 5.4.4.2.2);

p) The description of time slot classification in "Active Multiplexing of Time Slots by This Station" has been revised (see 5.4.5.1, 5.4.5.2 in the 2017 version);

q) The provision regarding "duplex transponders" has been removed (see 5.4.7.3 in the 2017 version);

- r) Modified the content related to "Synchronization with base station and synchronization with mobile station" (see 5.5.1.2.4, 5.5.1.2.5, and 5.5.1.2.4 in the 2017 version).
- 5.5.1.2.5);
- t) The specification in "Distance Delay" has been changed (see 5.5.2.2.9, 5.5.2.2.9.3 in the 2017 version);
- u) The "Twister Delay" section has been removed (see version 5.5.2.2.9.4 in 2017).
- v) The time position corresponding to 80% RF power in Figure 12 has been changed (see 5.5.2.2.10, 2017 version 5.5.2.2.10);
- w) Added content on "MSSA Data Access Method" (see 5.5.3.1.1);
- x) The application of ITDMA has been changed (see 5.5.3.4.1, version 5.5.3.4.2.1 of 2017);
- y) The description of "LME.ITINC" in the ITDMA parameters has been changed (see 5.5.3.4.3, version 5.5.3.4.2.3 of 2017);
- z) The content of "RATDMA" has been changed (see 5.5.3.5, version 5.5.3.4.3 of 2017);
- aa) The content of "First Frame Phase" has been changed (see 5.5.3.8.3, version 5.5.3.5.3.6 of 2017);
- ab) Added provisions for "extreme conditions" to the "Minimum Requirements for Transmitter Characteristics" (see 5.6.2, 9.4.1.3);
- ac) The relevant provisions for physical layer "emission protection" have been changed (see 5.6.12, 2017 version of 5.6.12);
- (ad) Added some provisions for messages 25 and 26 (see 7.1, 7.8.1, 10.2);
- (ae) changed the relevant content for DAC (see 7.3, 8.3 in the 2017 version);
- (af) Added the case where Class B "CS" AIS mobile stations send messages 18 and 24 (see 9.3.3);
- (ag) Added a representation that allows Class B "CS" to provide information via message 24 (see 9.3.5.1.1);
- (ah) The unit symbol for the "Modulation Mask" value in the "Minimum Requirements for CSTDMA Transmitters" has been changed from "dBW" to "dBc".
- (See 9.4.1.3, 10.4.1.3 in the 2017 edition);
- (Al) The unit of "Start Time" in the link layer "Power and Time Mask" diagram has been changed (see 9.4.2.2.5, 2017 version).
- 10.4.2.2.5);
- aj) The description related to "specifying timeout value for messages" has been changed