

RESOLUTION MSC.246(83)  
(adopted on 8 October 2007)  
ADOPTION OF PERFORMANCE STANDARDS FOR  
SURVIVAL CRAFT AIS SEARCH AND RESCUE TRANSMITTERS (AIS-SART)  
FOR USE IN SEARCH AND RESCUE OPERATIONS

**ANNEX 18**

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THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution A.886(21) on Procedure for the adoption of, and amendments to, performance standards and technical specifications, by which the Assembly resolved that the function of adoption performance standards and technical specifications, as well as amendments thereto shall be performed by the Maritime Safety Committee,

RECOGNIZING that new designs of radar are being introduced which do not employ traditional pulsed technology,

RECOGNIZING ALSO that ships are now fitted with an automatic identification system (AIS),

NOTING the results of operational trials on AIS Search and Rescue Transmitter (AIS-SART) reported by Governments,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Radiocommunications and Search and Rescue at its eleventh session, and the Maritime Safety Committee at its eighty-third session,

1. ADOPTS the Recommendation on Performance Standards for survival craft AIS Search and Rescue Transmitter (AIS-SART) for Use in Search and Rescue Operations set out in the Annex to the present resolution;
2. RECOMMENDS Governments to ensure that AIS-SARTs used in search and rescue operations installed on or after 1 January 2010 conform to the performance standards not inferior to those set out in annex to the present resolution.

## ANNEX

### PERFORMANCE STANDARDS FOR SURVIVAL CRAFT AIS SEARCH AND RESCUE TRANSMITTERS (AIS-SART) FOR USE IN SEARCH AND RESCUE OPERATIONS

#### 1 INTRODUCTION

AIS Search and Rescue Transmitter (AIS-SART), in addition to meeting the requirements of the relevant ITU-R Recommendation and the general requirements set out in resolution A.694(17)\*, should comply with the following performance standards.

#### 2 GENERAL

The AIS-SART should be capable of transmitting messages that indicate the position, static and safety information of a unit in distress. The transmitted messages should be compatible with existing AIS installations. The transmitted messages should be recognized and displayed by assisting units in the reception range of AIS-SART, and clearly distinguish the AIS-SART from an AIS installation.

##### 2.1 The AIS-SART should:

- .1 be capable of being easily activated by unskilled personnel;
- .2 be fitted with means to prevent inadvertent activation;
- .3 be equipped with a means which is either visual or audible, or both visual and audible, to indicate correct operation;
- .4 be capable of manual activation and deactivation; provision for automatic activation may be included;
- .5 be capable of withstanding without damage drops from a height of 20 m into water;
- .6 be watertight at a depth of 10 m for at least 5 min;
- .7 maintain water tightness when subjected to a thermal shock of 45°C under specified conditions of immersion;
- .8 be capable of floating (not necessarily in an operating position) if it is not an integral part of the survival craft;
- .9 be equipped with buoyant lanyard, suitable for use as a tether, if it is capable of floating;
- .10 not be unduly affected by seawater or oil;
- .11 be resistant to deterioration in prolonged exposure to sunlight;

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\* Publication IEC 60945.

- .12 be of a highly visible yellow/orange colour on all surfaces where this will assist detection;
- .13 have a smooth external construction to avoid damaging the survival craft;
- .14 be provided with an arrangement to bring the AIS-SART antenna to a level of at least 1 metre above sea level, together with illustrated instructions;
- .15 be capable of transmitting with a reporting interval of 1 minute or less;
- .16 equipped with an internal position source and be capable of transmitting its current position in each message; and
- .17 be capable of being tested for all functionalities using specific test information.

2.2 The AIS-SART should have sufficient battery capacity to operate for 96 h within a temperature range of -20°C to +55°C, and to provide for testing of the functions on the equipment. The AIS-SART should have a unique identifier to ensure the integrity of the VHF data link.

2.3 The AIS-SART should be so designed as to be able to operate under ambient temperatures of -20°C to +55°C. It should not be damaged in stowage throughout the temperature range of -30°C to +70°C.

2.4 The AIS-SARTs should be detectable at a range of 5 nautical miles over water.

2.5 The AIS-SART should continue transmission even if the position and time synchronization from the positioning system is lost or fails.

2.6 The AIS-SART should transmit within 1 minute of activation.

### **3 TECHNICAL CHARACTERISTICS**

Technical characteristics of the AIS-SART should be in accordance with relevant ITU recommendations.

### **4 LABELLING**

In addition to the items specified in resolution A.694(17)\*\* , the following should be clearly indicated on the exterior of the equipment:

- .1 brief operating and test instructions; and
- .2 expiry date for the primary battery used.

\*\* Recommendations on general requirements for shipborne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for Electronic Navigational Aids

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