ANNEX 11

RESOLUTION MSC.149(77)
(adopted on 3 June 2003)

ADOPTION OF THE REVISED PERFORMANCE STANDARDS FOR SURVIVAL CRAFT PORTABLE TWO-WAY VHF RADIOTELEPHONE APPARATUS

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), by which the Assembly resolved that the functions of adopting performance standards for radio and navigational equipment, as well as amendments thereto, shall be performed by the Maritime Safety Committee on behalf of the Organization,

NOTING regulation III/6.2.1 of the 1988 amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, concerning radiocommunications for the Global Maritime Distress and Safety System (GMDSS), which requires that ships be provided with survival craft two-way VHF radiotelephone apparatus and that such apparatus shall conform to appropriate performance standards not inferior to those adopted by the Organization,

RECOGNIZING the need to improve the previously adopted, by resolution A.809(19), annex 1, performance standards for survival craft portable two-way VHF radiotelephone apparatus,

HAVING CONSIDERED the recommendations on the revision of annex 1 to resolution A.809(19) made by the Sub-Committee on Radiocommunications and Search and Rescue at its seventh session,

1. ADOPTS the Revised Recommendation on Performance Standards for Survival Craft Portable Two-Way VHF Radiotelephone Apparatus, set out in the Annex to the present resolution;

2. RECOMMENDS Governments to ensure that survival craft portable two-way VHF radiotelephone apparatus:

(a) if installed on or after 1 July 2005, conform to performance standards not inferior to those specified in the Annex to the present resolution;

(b) if installed before 1 July 2005, conform to performance standards not inferior to those specified in annex 1 to resolution A.809(19).

ANNEX

REVISED RECOMMENDATION ON PERFORMANCE STANDARDS FOR SURVIVAL CRAFT PORTABLE TWO-WAY VHF RADIOTELEPHONE APPARATUS

1 INTRODUCTION

1.1 The survival craft portable two-way VHF radiotelephone, in addition to meeting the requirements of the Radio Regulations, the relevant ITU-R Recommendations and the general requirements set out in resolution A.694(17), should comply with the following performance standards.

2 GENERAL

2.1 The equipment should be portable and capable of being used for on-scene communication between survival craft, between survival craft and ship and between survival craft and rescue unit. It may also be used for on-board communications when capable of operating on appropriate frequencies.

2.2 The equipment should comprise at least:

.1 an integral transmitter/receiver including antenna and battery;

.2 an integral control unit including a press-to-transmit switch; and

.3 an internal microphone and loudspeaker.

2.3 The equipment should:

.1 be capable of being operated by unskilled personnel;

.2 be capable of being operated by personnel wearing gloves as specified for immersion suits in regulation 32.3 of chapter III of 1974 SOLAS Convention, as amended;

.3 be capable of single-handed operation except for channel selection;

.4 withstand drops on to a hard surface from a height of 1 m;

.5 be watertight to a depth of 1 m for at least 5 min;

.6 maintain watertightness when subjected to a thermal shock of 45°C under conditions of immersion;

.7 not be unduly affected by seawater, or oil, or both;

.8 have no sharp projections which could damage survival craft;

.9 be of small size and light weight;

.10 be capable of operating in the ambient noise level likely to be encountered on board ships or in survival craft;

.11 have provisions for its attachment to the clothing of the user and also be provided with a wrist or neck strap. For safety reasons, the strap should include a suitable weak link to prevent the bearer from being ensnared;

.12 be resistant to deterioration by prolonged exposure to sunlight; and

.13 be either of a highly visible yellow/orange colour or marked with a surrounding yellow/orange marking strip.

3 CLASS OF EMISSION, FREQUENCY BANDS AND CHANNELS

3.1 The two-way radiotelephone should be capable of operation on the frequency 156.800 MHz (VHF channel 16) and on at least one additional channel.

3.2 All channels fitted should be for single-frequency voice communication only.

3.3 The class of emission should comply with Recommendation ITU-RM.489-2.

4 CONTROLS AND INDICATORS

4.1 An on/off switch should be provided with a positive visual indication that the radiotelephone is switched on.

4.2 The receiver should be provided with a manual volume control by which the audio output may be varied.

4.3 A squelch (mute) control and a channel selection switch should be provided.

4.4 Channel selection should be easily performed and the channels should be clearly discernible.

4.5 Channel indication should be in accordance with Appendix 18 of the Radio Regulations.

4.6 It should be possible to determine that channel 16 has been selected in all ambient light conditions.

5 PERMISSIBLE WARMING-UP PERIOD

5.1 The equipment should be operational within 5 s of switching on.

6 SAFETY PRECAUTIONS

6.1 The equipment should not be damaged by the effects of open-circuiting or short-circuiting the antenna.

7 TRANSMITTER POWER

7.1 The effective radiated power should be a minimum of 0.25 W. Where the effective radiated power exceeds 1 W, a power reduction switch to reduce the power to 1 W or less is required. When this equipment provides for on-board communications, the output power should not exceed 1 W on these frequencies.

8 RECEIVER PARAMETERS

8.1 The sensitivity of the receiver should be equal to or better than 2 µV e.m.f. for a SINAD ratio of 12 dB at the output.

8.2 The immunity to interference of the receiver should be such that the wanted signal is not seriously affected by unwanted signals.

9 ANTENNA

9.1 The antenna should be vertically polarized and, as far as practicable, be omnidirectional in the horizontal plane. The antenna should be suitable for efficient radiation and reception of signals at the operating frequency.

10 RECEIVER OUTPUT

10.1 The audio output should be sufficient to be heard in the ambient noise level likely to be encountered on board ships or in a survival craft.

10.2 In the transmit condition, the output of the receiver should be muted.

11 ENVIRONMENTAL CONDITIONS

11.1 The equipment should be so designed as to operate over the temperature range -20°C to +55°C. It should not be damaged in stowage throughout the temperature range -30°C to +70°C.

12 POWER SUPPLY

12.1 The source of energy should be integrated in the equipment and may be replaceable by the user. In addition, provision may be made to operate the equipment using an external source of electrical energy.

12.2 Equipment for which the source of energy is intended to be user-replaceable should be provided with a dedicated primary battery for use in the event of a distress situation. This battery should be equipped with a non-replaceable seal to indicate that it has not been used.

12.3 Equipment for which the source of energy is intended to be non-user-replaceable should be provided with a primary battery. The portable two-way radiotelephone equipment should be fitted with a non-replaceable seal to indicate that it has not been used.

12.4 The primary battery should have sufficient capacity to ensure 8-hour operation at its highest rated power with a duty cycle of 1:9. This duty cycle is defined as 6-second transmission, 6-second reception above squelch opening level and 48-second reception below squelch opening level.

12.5 Primary batteries should have a shelf life of at least 2 years, and if identified to be user-replaceable should be of a colour or marking as defined in 2.3.13.

12.6 Batteries not intended for use in the event of a distress situation should be of a colour or marking such that they cannot be confused with batteries intended for such use.

13 LABELLING

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

.1 brief operating instructions; and

.2 expiry date for the primary batteries.

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