AS 2092—1988

Australian Standard®

PYROTECHNIC MARINE DISTRESS FLARES AND SIGNALS FOR PLEASURE CRAFT

This Australian Standard was prepared by Committee CS/80, Marine Distress Flares. It was approved on behalf of the Council of the Standards Association of Australia on 16 August 1988 and published on 3 October 1988.

The following interests are represented on Committee CS/80:

Australian Boating Industry Association

Australian Yachting Federation

Confederation of Australian Industry

Department of Defence

Department of Labour, Vic.

Department of Transport and Communications

Marine Board of Victoria

Maritime Services Board of N.S.W.

National Safety Council of Australia (Victorian Division)

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PREFACE

This Standard was prepared by the Association's Committee on Marine Distress Flares to supersede the 1977 edition which was prepared by the Association's Committee on Small Powered Boats.

This edition is broadly in line with the requirements specified in the 1984 edition of the Australian Transport Advisory Council's Uniform Shipping Laws (USL) Code. Certain types of stores specified in this Standard are not covered by the USL Code but were considered by the Committee to be of use on pleasure boats.

The Committee was also concerned that in some areas the requirements in the USL Code were rather subjective. Wherever possible test methods have been incorporated for the mandatory requirements of the Standard.

The combination flare which was included in the 1977 edition of this Standard has been deleted from the current edition. It was found that the only combination flares available were short-duration day/night signals which were similar to those used by the Defence Forces. These signals did not meet the performance criteria of the individual components, as required in the 1977 edition, and were not normally used aboard pleasure craft. Therefore, no justification for retaining the requirements for combination flares in the Standard exists.

The user's attention is drawn to regulations which exist in each State requiring certain stores to be carried aboard various types of boats. The local Marine Regulatory Authority can supply details of these regulations.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
PYROTECHNIC MARINE DISTRESS FLARES AND SIGNALS FOR PLEASURE CRAFT

1 SCOPE. This Standard specifies requirements for construction, performance and packaging of pyrotechnic marine distress flares and signals intended for use in plesure craft.

NOTE: Guidance on the use of flares and signals is given in Appendix C.

2 APPLICATION. This Standard is applicable to the following types of flares and signals:

(a) Red hand-held distress flare.

(b) Red star parachute distress rocket.

(c) Red star distress projectile.

(d) Orange smoke hand-held distress signal.

(e) Orange smoke buoyant distress signal.

(f) White hand-held collision warning flare.

3 REFERENCED DOCUMENT. The document below is referred to in this Standard.

AS
1903 Reflective foil laminate

4 DEFINITIONS. For the purpose of this Standard, the definitions below apply.

4.1 Red hand-held distress flare—a flare, capable of being hand-held, and giving a brilliant red light.

4.2 Red star parachute distress rocket—a rocket, capable of being fired from a hand-held position, and conveying a red star to a minimum specified height at which the star is deployed and descends by parachute.

4.3 Red star distress projectile—a cartridge, capable of being fired from a hand-held position, and projecting one or more red stars which fall freely.

4.4 Orange smoke hand-held distress signal—a smoke signal, capable of being hand-held, and emitting a vivid and expanding cloud of dense orange-coloured smoke.

4.5 Orange smoke buoyant distress signal—a smoke signal capable of emitting a vivid and expanding cloud of dense orange-coloured smoke while floating on water.

4.6 White hand-held collision warning flare—a flare, capable of being hand-held, and giving a brilliant white light.

4.7 Store—a general term which includes pyrotechnic marine distress flares and signals.

5 GENERAL DESIGN AND CONSTRUCTION.

5.1 General. Each store should be designed so that it can be operated at sea from a small boat, under adverse conditions, in darkness with wet, cold or gloved hands. Components should be distinguishable by feel, and the method of operation should be self-evident. Protective caps shall be securely fitted. Tear-off tapes, where used, shall protrude sufficiently to facilitate removal.

5.2 Means of ignition. Each store shall be provided with an integral or permanently attached means of ignition designed to be operated from a hand-held position, without external aid, and without injury to the boat occupants.

5.3 Waterproofing. Each store shall be individually packaged and waterproofed to the extent that it will meet the performance requirements of this Standard after immersion in water under ambient conditions as follows:

(a) As supplied, with all packaging intact, at a depth of 1 m for 24 h.

(b) With the outer packaging and tapes (if any) removed, but with the protective caps on, at a depth of 1 m for 2 h.

(c) In the ready-to-fire condition, at a depth of 100 mm for 60 s.

When performing these tests the following conditions shall be met:

(i) The whole of the store including the striker shall be held in a horizontal attitude at the specified depth.

(ii) The store should be fired as soon as possible after removal from the water and no attempt should be made to remove surface moisture.

(iii) A new store may be used for each of the tests.

5.4 Durability. All components, compositions and ingredients should be of a character and quality so that the store should remain serviceable—

(a) under magazine storage conditions for at least 4 years; or

(b) under reasonable conditions in a marine environment for at least 3 years.

All metal components shall be corrosion resistant.

5.5 Toxicity. Neither the composition nor the decomposition products of a store shall include highly toxic compounds.

5.6 Resistance to immersion. When tested in accordance with Appendix B, a store, other than a red star parachute distress rocket or a red star distress projectile, shall continue burning after immersion in water and shall emit the specified display for the full time set out in Clause 6, 9, 10 or 11 as appropriate.

6 RED HAND-HELD DISTRESS FLARE.

6.1 Design. A red hand-held distress flare shall be designed to be operated from a hand-held position, without external aid, and to be displayed from a boat, without harm to the occupants.

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