AS/NZS 4869.2:2010
(Incorporating Amendment No. 1)

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Australian/New Zealand Standard™

Stand alone maritime survivor locating systems (MSLS)

Part 2: Operating on frequencies other than 121.5 MHz

STANDARDS Australia

STANDARDS NEW ZEALAND
PAEREWA AOTEAROA

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee RC-004, Radiocommunications Equipment—Maritime and Safety of Life. It was approved on behalf of the Council of Standards Australia on 9 December 2009 and on behalf of the Council of Standards New Zealand on 23 December 2009.
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The following are represented on Committee RC-004:

Australian Communications and Media Authority
Australian Industry Group
Australian Maritime Safety Authority
Australian Radio Communications Industry Association
Civil Aviation Safety Authority
Electromagnetic Technical Evaluation Committee
Maritime NZ
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Testing Interests (New Zealand)
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PREFACE

This Standard was prepared by Joint Standards Australia/Standards New Zealand Committee RC-004, Radiocommunications Equipment—Maritime and Safety of Life.

This Standard incorporates Amendment No. 1 (August 2013). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide the essential requirements for Maritime Survivor Locating Systems (MSLS) operating on frequencies other than 121.5 MHz. This Standard includes environmental, operational and radiofrequency requirements. These specifications are required by both the appropriate national spectrum management authority and maritime safety authority in each country.

This Standard is Part 2 of AS/NZS 4869, *Stand alone maritime survivor locating systems (MSLS)*, which consists of the following parts:

Part 1: Operating on 121.5 MHz

Part 2: Operating on frequencies other than 121.5 MHz (this Standard).

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard provides the minimum requirements for Maritime Survivor Locating Systems (MSLSs) intended for very short-range crew retrieval applications operating on frequencies other than 121.5 MHz, commonly referred to as 'man-overboard systems'. MSLS systems operating on 121.5 MHz are covered by AS/NZS 4869.1. The MSLS is designed to allow for self-help from the vessel or organization where there is a risk of crew falling overboard by sounding an alert from the onboard receiver.

Two basic principles of operation have been identified, as follows:

(a) *Type A* A low power battery-operated transmitter is carried or worn by persons at risk of falling overboard. A receiver on the parent vessel continuously monitors the system's designated frequency. If an incident occurs the transmitter involved is activated and the received signal initiates an alarm and may in some cases also be used for homing purposes to guide rescuers back to the casualty.

(b) *Type B* Portable battery-powered radio transmitters are carried or worn by persons at risk of falling overboard. These emit a radio signal at frequent intervals which is coded to indicate the unique identity of each individual device. A receiver/decoder on the vessel is programmed to monitor these signals and to activate an alarm if the signal is not received. These systems are inherently fail safe because they activate when a signal is not detected.

The requirements in this Standard encompass the physical characteristics of the devices used in MSLS systems as they pertain to maritime use. For Type A MSLS transmitters, both the radiated power and the length of time for operation are reduced relative to conventional EPIRB type beacons to enable the equipment to be sufficiently small and lightweight to be worn comfortably at all times when a person is operating in an open maritime environment.

MSLS may be developed and employed on certain approved frequencies. These may be frequencies covered by the Australian Communications and Media Authority's Class licence for low interference potential devices (LIPDs) or the New Zealand Ministry of Economic Development's General User Radio Licence (GURL) or on certain maritime frequencies such as the Digital Selective Calling (DSC) channel 70 VHF, and the radiotelephone channel 16 VHF, when such an arrangement has been authorized by the relevant regulators.

The technical requirements for equipment covered by the LIPD class licence or the GURL are contained in AS/NZS 4268.

1.2 APPLICATION

This Standard is intended for use by equipment designers, manufacturers and suppliers to ensure correct and reliable operation of Maritime Survivor Locating Systems operating on frequencies other than 121.5 MHz as set out in Clause 1.1.