Australian/New Zealand Standard™

406 MHz satellite distress beacons

Part 2: Personal locator beacons (PLBs)

Standards Australia

STANDARDS NEW ZEALAND

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 12 November 2001 and on behalf of the Council of Standards New Zealand on 12 October 2001. It was published on 11 January 2002.

The following interests are represented on Committee RC-004:

Australian Communications Authority
Australian Electrical and Electronic Manufacturers Assocation
Australian Federal Police
Australian Maritime Safety Authority
Department of Defence, Australia
Ministry of Economic Development, New Zealand
New Zealand Marine Safety Interests
State Maritime Service Departments
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Australian/New Zealand Standard™

406 MHz satellite distress beacons

Part 2: Personal locator beacons (PLBs)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee RC-004, Radiocommunications Equipment—Maritime and Safety of Life to supersede, in part, AS/NZS 4280:1995.

The objective of this Standard is to provide equipment designers, manufacturers, suppliers and testing facilities of 406 MHz satellite distress beacons, when employed as Personal Locator Beacons, with both the minimum radiofrequency and environmental requirements and associated test methods, to enable design and confirmation of compliance with Australia and New Zealand radiofrequency spectrum and maritime regulatory requirements.

This Standard is Part Two of AS/NZS 4280, *406 MHz satellite distress beacons*, which is published in parts as follows:

Part 1: Marine emergency position-indicating beacons (EPIRBs)
Part 2: Personal locator beacons (PLBs) (this Standard)

Part One is reproduced from IEC 61097-2:1994, *Global maritime distress and safety system (GMDSS)*, Part 2: COSPAS-SARSAT EPIRB — *Satellite emergency position indicating radio beacon operating on 406 MHz — Operational and performance requirements, methods of testing and required test results*. Some variations have been made for Australian and New Zealand conditions.

This Part Two pertains to personal locator beacons (PLBs). The subject matter is a revision of AS/NZS 4280:1995, *406 MHz satellite distress beacons*.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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FOREWORD

To provide the essential requirements for 406 MHz satellite personal locator beacons (PLBs), this Standard includes both environmental and operational requirements and radiofrequency requirements for land beacons. The requirements are made up of specifications, and methods of test for verification of those specifications, which are based on COSPAS-SARSAT requirements.

These specifications are required by both the appropriate national spectrum management authorities in Australia and New Zealand.

The requirements of the national spectrum management authorities are contained in Sections 1 and 3 and Appendix E. The national safety authorities requirements are in Sections 1 and 2, and Appendices B, C, and D. The appendices in both cases contain test or registration requirements.

Appendix A provides information about the procurement of COSPAS-SARSAT documentation.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
406 MHz satellite distress beacons

Part 2: Personal locator beacons (PLBs)

S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE

This Standard provides the minimum requirements for Personal Locator Beacons (PLBs) operating with a nominal frequency in the band 406.000 MHz To 406.100 MHz.

These requirements encompass the physical characteristics of the devices pertaining to land use, and the performance characteristics for reception through the COSPAS-SARSAT satellite system.

Characteristics are also included for the homing transmitters incorporated in these devices.

This Standard does not apply to the Emergency Locating Transmitters (ELTs) used in aeronautical applications.

1.2 APPLICATION

This Standard is intended for use by equipment designers, manufacturers and suppliers to ensure correct operation of the PLBs and their compatibility with COSPAS-SARSAT.

1.3 REFERENCED AND RELATED DOCUMENTS

1.3.1 Referenced documents

The following Standards are referred to:

AS/NZS
3548 Limits and methods of measurement of radio disturbance characteristics of information technology equipment

IEC
60945 Marine navigation and radiocommunications equipment — General requirements — Methods of testing and required test results

Other documents

COSPAS-SARSAT

Specification for 406 MHz Distress Beacons C/S T.001, current issue
406 MHz Distress Beacons Type Approval Standard C/S T.007, current issue

IMO Resolution A.694(17)

General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids