



Australian Government

MARF1001A Apply basic survival skills in the event of vessel abandonment

Release 1

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Modification History

Release 1

This is the first release of this unit.

Unit Descriptor

This unit involves the skills and knowledge required to apply basic survival skills in the event of vessel abandonment.

Application of the Unit

This unit applies to deck and engine workers working in the maritime industry on vessels up to 80 metres. They could be working independently or as part of a vessel crew.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 Prepare to abandon vessel | <ul style="list-style-type: none">1.1 Nature of emergency is determined to minimise potential dangers and threats1.2 Muster and abandon vessel signals are responded to according to vessel safety procedures1.3 Survival equipment is organised to maximise chances of survival1.4 Emergency position indicating radio beacon (EPIRB) is operated to transmit distress signal1.5 Distress calls are made using radio equipment on distress call frequency, if time allows, to communicate the nature of the emergency1.6 Others are assisted to maximise their chances of survival |
| 2 Determine operational safety requirements | <ul style="list-style-type: none">2.1 Relevant maritime legislation is identified, accessed and reviewed2.2 Safety requirements for a range of near coastal vessels are identified, accessed and reviewed2.3 Lifesaving and survival equipment required on board a near coastal vessel is accurately identified2.4 Lifesaving equipment on board is checked and confirmed as serviceable2.5 Lifesaving and survival equipment certificates and documentation are checked for validity2.6 Vessel safety management systems (SMS) and plans are located, interpreted and applied |
| 3 Practise survival techniques | <ul style="list-style-type: none">3.1 Typical emergency alarms and types of alarm systems are accurately identified3.2 Need to abandon vessel is determined according to established safety practice and procedures3.3 In-water survival techniques are implemented according to established safety practice and procedures3.4 Threats to survival are identified and treatment options are outlined |

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| 4 Apply survival techniques | <ul style="list-style-type: none">4.1 Lookout for vessels and aircraft is maintained and distress signals are released on sighting4.2 During an emergency, work is carried out collaboratively with other shipboard personnel and passengers as required4.3 During emergency and survival situations, appropriate communication skills and techniques are implemented4.4 Instructions given by rescue personnel to safely access rescue craft are followed |
| 5 Operate lifesaving and survival equipment | <ul style="list-style-type: none">5.1 Range of pyrotechnic and distress signals are operated according to established safety practice and procedures5.2 Survival equipment is operated according to instructions and accepted survival practice5.3 Survival radio equipment is operated according to manufacturer instructions and regulatory protocols5.4 Lifejackets and other lifesaving equipment is operated and used according to instructions |
| 6 Participate in abandon vessel drills | <ul style="list-style-type: none">6.1 Regulatory requirements and company procedures for musters and drills are identified and implemented6.2 Actions required for a range of muster signals are correctly identified6.3 Action is taken promptly to address problems that may arise when following vessel abandonment procedures6.4 Risks and hazards that may occur when abandoning vessel are identified and minimised according to SMS, and established safety practice and procedures6.5 Information relevant to use of lifesaving equipment is accessed and correctly interpreted6.6 Range of emergencies that may lead to vessel abandonment are outlined |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required Skills:

- Collect, manage and interpret information on use of lifesaving equipment and procedures to be followed when order to abandon vessel is given
- Communicate effectively with other personnel and passengers during simulated and actual abandon vessel musters and emergencies
- Determine type and extent of emergency and appropriate survival action to be taken
- Don various lifejacket and other lifesaving apparel
- Identify signs of hypothermia and provide appropriate treatment
- Operate radio equipment
- Plan timing and sequence of individual survival actions to be appropriate to prevailing circumstances and conditions of emergency, and minimise potential dangers and threats to other survivors
- Read and interpret instructions on emergency procedures, safety management systems and plans, and use of lifesaving and survival equipment
- Recognise and interpret muster signals appropriately for indicated emergency
- Swim in a lifejacket
- Use handheld pyrotechnics

Required Knowledge:

- Action to be taken in an emergency situation
- Appropriate survival techniques
- Construction, outfit and particular characteristics of various types of applicable survival equipment
- Emergency muster and abandon vessel signals
- Emergencies that may lead to vessel abandonment
- Established safety practice and procedures
- First aid techniques
- Importance of being ready for any shipboard emergency including using lifesaving equipment
- Initial actions for survival on vessel abandonment
- Location of:
 - lifesaving appliances on a vessel
 - survival equipment on vessel
- Maintenance of lifesaving appliances
- Maritime communication techniques

- Personal protective equipment (PPE)
 - purpose
 - use
- Procedures for correctly operating and using lifesaving appliances and PPE on board vessels and survival craft, and specifically:
 - donning a lifejacket, and using a lifejacket light and whistle
 - using handheld pyrotechnics
- Procedures for:
 - abandoning vessel
 - emergency response on board vessels, including abandoning vessel
- Regulatory requirements and company procedures for musters and drills
- Relevant manufacturer guidelines relating to operating and using survival equipment, including instructions on equipment capability and limitations
- Relevant maritime regulations related to required survival equipment on a vessel
- Relevant work health and safety (WHS)/occupational health and safety (OHS) legislation and policies including SMS, plans, processes and techniques
- Standard safety symbols
- Steps to be taken after collision, grounding or other marine casualty and resulting hull damage
- Survival techniques with a swamped, semi submerged tender or dingy
- Survival at sea techniques
- Symptoms of hypothermia, its prevention and treatment and related use of protective covers and garments
- Techniques for using survival equipment
- Threats to survival after abandoning vessel and:
 - appropriate strategies for countering these threats
 - how to minimise dangers
- Use of distress signals and penalty for misuse
- Value of training and emergency drills for enhancing chances of survival at sea
- Ways of maximising detect-ability using pyrotechnic distress signals, portable VHF radios, satellite EPIRBs

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, the required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- donning a lifejacket in water
- ensuring behaviour reflects statutory requirements pertaining to lifesaving appliances
- locating survivors in simulated darkness
- swimming in a lifejacket for a minimum of 50 metres
- towing with a life jacket for a minimum of 25 metres
- remaining afloat without a lifejacket for at least 10 minutes
- assisting a survivor to don a lifejacket
- maintaining a group huddle for at least 10 minutes
- swimming in a group congo line for a minimum of 50 metres
- holding heat escape lessening posture for at least 10 minutes.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- industry-approved marine operations site where applying basic survival skills in the event of vessel abandonment can be conducted
- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate applying basic survival skills in the event of vessel abandonment
- direct observation of the candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required Knowledge.

Assessment processes and techniques must be appropriate to the language and literacy requirements of the work being performed and the capacity of the candidate.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below.

Survival equipment may include:	• EPIRBs • Flares • Immersion suit • Life jackets • Person overboard combination light and smoke float • Search and rescue transponders (SARTs) • Survival craft
Radio equipment may include:	• HF • VHF
Lifesaving and survival equipment may include:	• Immersion suit • Lifebuoy • Personal floatation devices
Certificates and documentation may include:	• Instructions for use of lifesaving equipment • Pyrotechnic expiry dates • Record of inspection of equipment
Emergency alarms and types of alarm systems may include:	• Electronic alarms • Muster and abandon vessel alarms • Verbal communication
In-water survival techniques may include:	• Floating with or without a lifejacket • Heat loss techniques • Swimming with a lifejacket
Threats to survival may include:	• Dehydration • Hypothermia • Ingestion of seawater
Rescue craft may include:	• Another vessel • Helicopter
Pyrotechnic and distress signals may include:	• Orange smoke flare • Red handheld flare
Risks and hazards may include:	• Expired pyrotechnics • Inaccessible lifejackets • No defined abandon ship procedures established • Poorly maintained equipment

Unit Sector(s)

Not applicable.

Competency Field

Operational Quality and Safety