



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TDMMF1101A Survive at sea in the event of vessel abandonment**

**Release: 1**

## **TDMMF1101A Survive at sea in the event of vessel abandonment**

### **Modification History**

Not applicable.

### **Unit Descriptor**

This unit involves the skills and knowledge required to survive at sea in the event of abandonment.

**The unit is consistent with the relevant maritime regulations describing mandatory minimum requirements for familiarization and basic safety competence required for all seafarers. This includes relevant sections of the Australian USL Code, Section A VI/1-1 of the STCW 95 Code and AMSA Marine Orders Part 3, Issue 5, Appendix 4.**

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### **Application of the Unit**

Not applicable.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

Not applicable.

### **Elements and Performance Criteria Pre-Content**

Not applicable.

# Elements and Performance Criteria

## Elements and Performance Criteria

Element	Performance Criteria
1 Practice survival techniques	<p>1.1 The timing and sequence of individual survival actions are appropriate to the prevailing circumstances and conditions of the emergency and minimize potential dangers and threats to other survivors</p> <p>1.2 Initial actions when boarding survival craft enhance chance of survival</p> <p>1.3 Jumps safely from a height into the water in accordance with established survival practice</p> <p>1.4 Swims while wearing a lifejacket and floats without a lifejacket in accordance with established survival practice</p> <p>1.5 Inverted life raft is righted while wearing a lifejacket in accordance with established survival practice</p> <p>1.6 Appropriate handling strategies are applied to manoeuvre survival craft in rough weather and sea conditions</p> <p>1.7 Sea anchors and drogues are deployed in accordance with accepted nautical practice</p> <p>1.8 Signs of hypothermia or other distress are identified and treated in accordance with accepted survival medical practice</p> <p>1.9 Exposure cover is deployed on an open lifeboat in accordance with accepted survival practice and manufacturer's instructions</p>
2 Operate life saving and survival equipment	<p>1.1 Rationing of food is in accordance with accepted survival practice</p> <p>2.1 Location and accessibility of life-saving and survival equipment is established</p> <p>2.2 Method of boarding survival craft is appropriate and avoids dangers to other survivors</p>

- 2.3 Survival equipment is operated in accordance with instructions and accepted survival practice
  - 2.4 Survival radio equipment is operated in accordance with manufacturer's instructions and regulatory protocols
  - 2.5 Immersion suit, various thermal protective aids, life-jacket and other life-saving clothing are correctly donned and used in accordance with instructions
- 3 Participate in abandon vessel drills
- 3.1 Abandon vessel musters and drills are attended in accordance with regulatory requirements and company procedures
  - 3.2 Action taken on identifying muster signals is appropriate to the indicated emergency and complies with established procedures
  - 3.3 Information is obtained and correctly interpreted on the use of life-saving equipment and procedures to be followed in the event of the order to abandon vessel

## **Required Skills and Knowledge**

Not applicable.

## Evidence Guide

### Critical aspects of evidence to be considered

Assessment must confirm appropriate knowledge and skills to:

Practice survival techniques in suitably simulated situations

Operate and use the various types of survival equipment typically found on a vessel in suitably simulated situations

Participate in abandon vessel musters and drills

Communicate effectively with others as required when operating survival craft and ancillary survival equipment.

### Interdependent assessment of units

This unit of competency must be assessed in conjunction with other units that form part of a job role of any seafarer. (It is a mandatory requirement for all seagoing personnel)

### Required knowledge and skills

Knowledge of relevant maritime regulations dealing with survival at sea following abandonment of vessel

Relevant OH&S legislation and policies

SOLAS regulations

Incidents that may result in an emergency on board vessel and the appropriate response in each case

Emergency muster and abandon vessel signals

Importance of being ready for any shipboard emergency

Procedures for emergency response on board vessels including abandoning vessel

Initial actions for survival on abandonment of vessel as summarised in maritime survival publications such as the AMSA publication 'Survival at Sea - a Training and Instruction Manual'

Value of training and emergency drills for enhancing chances of survival at sea

Location of personal lifesaving appliances on a vessel

Construction, outfit and particular characteristics of various types of life boats, life rafts and rescue boats

Equipment found in survival craft, the function and the procedures for their use

Procedures for correctly operating and using lifesaving appliances and personal safety equipment on board vessels and survival craft and specifically:

donning a life jacket and using a life jacket light and whistle

donning an immersion suit

deployment of a mob combination light and smoke float

use of hand-held pyrotechnics

Threats to survival on abandonment of a vessel and appropriate strategies for countering these threats

Ways of maximising detectability and location of survival craft using pyrotechnic distress signals, portable VHF radios, satellite EPIRBs and SARTs

IMO safety symbols

Procedures for the rationing of food and water in survival craft

Personal protective clothing and equipment -- their purpose and use

Symptoms of hypothermia, its prevention and treatment and the related use of protective covers and garments such as immersion suits and thermal protective aids

Maritime communication techniques.

**Resource implications**

Access is required to opportunities to either:

carry out a range of suitably simulated practical and knowledge assessments that demonstrate the skills and knowledge to abandon vessel and survive at sea, and/or  
participate in vessel musters and drills in appropriately simulations of maritime conditions  
participate in abandon vessel simulations and drills on board an operational commercial or training vessel.

**Note:** Simulated abandon vessel and survival situations and assessments may require access to open and enclosed life boat fittings and equipment, on-load release gear training aid, open life boat and davit, life boat and rescue boat equipment, life jackets and hard hats, davit launched life raft and davit, inflatable throw over life raft, cradle and hydrostatic release, life boat/life raft boarding ladders, foul weather gear, training pool with jumping platform or equivalent, immersion suits, a selection of shipboard life saving, alerting and detection equipment typically found on vessels.

Assessments must be conducted in accordance with relevant OH&S requirements. Protective clothing must be worn in accordance with current maritime practices and Australian standards. At least one assessor must hold a current life saving qualification appropriate for in-water training and assessment exercises

**Consistency in performance**

Applies underpinning knowledge and skills when:

participating in simulated emergency response musters and drills  
operating survival equipment  
applying safety precautions relevant to survival operations  
assessing operational capability of survival craft and equipment.

Shows evidence of application of relevant workplace procedures including:  
relevant maritime regulations

OHS regulations and hazard prevention policies and procedures  
accepted survival procedures and maritime survival practice  
relevant manufacturer's guidelines relating to the operation and use of survival equipment, including instructions on equipment capability and limitations.

Work is completed systematically with required attention to detail.

**Context for assessment**

Assessment of competence must comply with the assessment requirements of the relevant maritime regulations.

Assessment of this unit must be undertaken within relevant marine authority approved and audited arrangements by a registered training organisation:

As a minimum, assessment of knowledge must be conducted through appropriate written/oral examinations

Appropriate practical assessment must occur:  
at the registered training organisation, and/or  
on an appropriate working or training vessel.

**Critical aspects of evidence to be considered**

Assessment must confirm appropriate knowledge and skills to:

Practice survival techniques in suitably simulated situations

Operate and use the various types of survival equipment typically found on a vessel in suitably simulated situations

Participate in abandon vessel musters and drills

Communicate effectively with others as required when operating survival craft and ancillary survival equipment.

### **Interdependent assessment of units**

This unit of competency must be assessed in conjunction with other units that form part of a job role of any seafarer. (It is a mandatory requirement for all seagoing personnel)

### **Required knowledge and skills**

Knowledge of relevant maritime regulations dealing with survival at sea following abandonment of vessel

Relevant OH&S legislation and policies

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Incidents that may result in an emergency on board vessel and the appropriate response in each case

Emergency muster and abandon vessel signals

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Maritime communication techniques.

### **Resource implications**

Access is required to opportunities to either:

carry out a range of suitably simulated practical and knowledge assessments that demonstrate the skills and knowledge to abandon vessel and survive at sea, and/or

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## Range Statement

### General context

Work must be carried out in compliance with the relevant maritime regulations.

Responses to abandon vessel alarms follow a prescribed range of survival procedures either individually or in a team environment with some accountability for the safety of self and others. This includes response to abandon vessel musters in both simulated and real emergency circumstances.

Responses involve the use of known and defined survival procedures and techniques across a variety of maritime survival contexts.

### Worksite environment

Vessel may include any Australian or international commercial vessel.

Emergencies that may lead to abandonment of vessel include:  
collision resulting in damage to the integrity of the vessel's hull  
fire

foundering

flooding of vessel's compartments.

Vessel abandonment may take place:

by day or night

under normal and adverse conditions of sea and weather

while underway

while hove to

while anchored or moored

in appropriately simulated situations.

Survival craft may include:

free-fall life boats

davit-launched life-boats

life rafts

rescue boats.

Life-saving and survival equipment may include:

life jackets

life buoys

hard hats

immersion suits and other thermal protective aids

rocket line throwing appliances

pyrotechnic distress signals

GMDSS survival craft VHF radios

satellite emergency position indicating radio beacons (EPIRBs)

search and rescue transponders (SARTs)

whistles.

Consumable materials and items that may used in life saving equipment may include:

batteries for detectors, radios, beacons, etc.

flares

survival rations.

In-water survival techniques may include:

swimming in a life-jacket

towing with a life jacket

remaining afloat without a life jacket

donning a life jacket in water  
the group huddle  
heat escape lessening posture.  
Threats to survival after abandoning vessel may include:  
cold water shock  
hypothermia  
psychological response to disaster  
loss of will to live  
sea sickness  
dehydration  
injuries  
starvation.

### **Sources of information/documents**

Documentation/records may include:

relevant maritime regulations  
SOLAS regulations  
AMSA publication 'Survival at Sea - a Training and Instruction Manual'  
instructions from official search and rescue authorities  
vessel's procedures for emergency response including abandoning vessel  
manufacturer's instructions for the use of survival craft and equipment  
instructions of relevant Maritime Authorities related to survival at sea  
relevant OH&S legislation, codes of practice, policies and procedures  
relevant Australian and international standards.

### **Applicable International, Australian and State/Territory regulations and legislation**

Applicable procedures and codes may include:

relevant maritime regulations including:  
relevant sections of Australian Uniform Shipping Laws (USL) Code  
IMO STCW 95 Code and Convention dealing with survival at sea and use of survival craft and equipment  
relevant sections of AMSA Marine Orders dealing with survival at sea and use of survival craft and equipment

Safety of Life at Sea (SOLAS) regulations  
relevant international, Australian and State/Territory OH&S legislation.

### **General context**

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relevant sections of AMSA Marine Orders dealing with survival at sea and use of survival craft and equipment

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relevant international, Australian and State/Territory OH&S legislation.

## **Unit Sector(s)**

Not applicable.