



Australian Government

DEFEO815A Operate small watercraft

Release: 2

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Modification History

Release	TP version	Comments
2	DEF12 V2	Layout adjusted.
1	DEF12 V1	First release.

Unit Descriptor

This unit covers the competency required to operate **small watercraft**. It includes the requirement to prepare the watercraft for operations, to conduct buoyancy calculations, to carry out appropriate tasks, and to clean and maintain the watercraft.

Application of the Unit

This unit applies to the individual who is required to operate small watercraft to conduct a range of tasks including:

- transporting personnel and/or equipment across water
- assisting mounting and maintaining wet crossing activities
- patrolling range boundaries
- recovering proof ordnance

While the technical aspects of this competency are concerned with 'operating a boat', the specialisation of the skill, and safety issues associated with waterborne operations confer additional responsibilities upon the operator. For all **watercraft operations** the individual may need to provide directions to personnel within the boat concerning specific safety matters such as seating, movement and actions on incidents such as man overboard and capsize. The individual must demonstrate sound judgement in the use of authority, and where possible, work within the existing lines of authority. The individual will usually operate the boat with minimum supervision.

The watercraft will normally be operated:

- in protected or calm waters
- day or night
- in training, on exercise and on operations

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.

Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for watercraft operations	1.1 Operating instructions are interpreted to determine the task, cargo, destination and route, and navigation data is compiled in accordance with standard procedures 1.2 Buoyancy/floatation calculations are completed to ensure passengers and cargo are safe to move 1.3 Equipment is selected, checked for serviceability and unserviceable items are replaced or rejected and reported to the supervisor in accordance with standard procedures 1.4 Shore preparation is conducted in accordance with standard procedures and watercraft is prepared and readied for launch 1.5 Appropriate personal protective equipment is selected and worn by all personnel 1.6 Passengers and crew are given a safety brief by the operator prior to embarking
2. Operate small watercraft	2.1 Watercraft is launched safely in accordance with standard procedures and local conditions 2.2 Watercraft is loaded and trimmed to ensure safety of crew and load 2.3 Watercraft is operated consistent with hazards and environmental conditions, and in accordance with standard procedures 2.4 Directions are provided, as necessary, to passengers in order to maintain safety and efficient boat operation 2.5 Contingency and emergency drills are carried out, as necessary, to minimise threat to personnel and equipment 2.6 Personnel and/or loads are disembarked and/or unloaded safely in accordance with standard procedures
3. Recover and maintain vessel	3.1 Watercraft is recovered from a ramp or improvised landing site 3.2 Watercraft and associated equipment are checked for serviceability, cleaned and maintained 3.3 Defects are reported and documentation is completed in accordance with standard procedures 3.4 Debriefing requirements are completed, as required, in accordance with standard procedures

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- calculate and record number and weight of passengers, stores and equipment
- constantly monitor hazards and apply safety principles to operations
- encourage other team members
- follow instructions/directives and report information
- participate in team
- read and interpret operating instructions
- use a variety of verbal and non-verbal communication techniques including language style, active listening
- use clear interpersonal communication as operator of the vessel
- use knots and lashings to secure watercraft

Required Knowledge

- applicable statutory waterways rules for watercraft operation
- buoyancy/floatation calculations
- composition of teams, and roles and responsibilities of team members
- effects of water moving over objects and obstacles
- local water hazards and environmental conditions
- team work
- techniques for supporting others
- verbal and non-verbal communication techniques including language style, active listening

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

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

Assessment must confirm the ability to safely operate selected small watercraft on various waterways under a range of environmental conditions. The operator must demonstrate competency at carrying both equipment and personnel, and demonstrate the ability to manage the full range of contingency and emergency actions.

Consistency in performance

Competency should be demonstrated over a timeframe that allows for the preparation, operation and maintenance of small watercraft under a range of water operating conditions carrying personnel and cargo.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed under a variety of water operating conditions. Evidence should be gathered by observing the individual preparing, operating and maintaining small watercraft on a variety of tasks that address all the requirements of the critical aspects of evidence.

Specific resources for assessment

Access is required to:

- watercraft, equipment and accessories
- safety equipment appropriate to the task
- appropriate cargo to be loaded, transported and unloaded
- training areas with access to a suitable body of water

Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment

or in an industry-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

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 in the Performance Criteria is detailed below.

<i>Small watercraft</i> may include:	• Hovercraft • Improvised watercraft such as rafts, pontoons, inflatable, rigid body or improvised watercraft constructed of timber, drums, canvas, inflatable tubes or any combination • Motorised and non-motorised boats up to five metres in length capable of accommodating a maximum of ten personnel and the operator and crewman • Motorised and non-motorised bridge and ferry construction craft • Motorised and non-motorised rigid and non-rigid inflatable craft • Watercraft powered by outboard motors of up to 40 hp
<i>Watercraft operations</i> may include:	• Evacuation of personnel, stores and equipment • Float for people operating near, in or over water • Providing range safety • Providing safety • Resupply operations • Searches, rescues • Support to bridge, ferry and raft operations • Support to divers • Support to proof firings • Transport of personnel
<i>Operating instructions</i> may include:	• Access and egress routes • Details of enemy threat and own force operations • Details of ramps or launching points • Details of resupply or evacuation requirements • Number and nature of personnel, including casualties to be transported • Potential hazards • Tidal information • Types of general cargo and weights • Weather forecast
<i>Standard procedures</i> may include:	• Manufacturer's handbooks, industry specifications and technical instructions • WHS regulations for water safety

	• Procedures manuals, job guides, watermanship pamphlets and other publications • Statutory waterways rules • Written and verbal orders and instructions
<i>Buoyancy/floatation calculations</i> may include:	• Freeboard when loaded within load limits • Number and weight of passengers within load limits • Weight of stores and equipment within load units
<i>Equipment to be used</i> may include:	• Appropriate rescue and recovery equipment • Items of stores and equipment • Personal protective equipment such as life jackets • Safety equipment that may be required under state/territory legislation or standard procedures • Vehicles and equipment used to transport boats
<i>Shore preparation</i> may include:	• Assembly for launch • Equipment checks • Loading of stores and equipment • Positioning vessel on ramp or launching site • Pre-start checks of engine
<i>Operating the watercraft</i> may include:	• Compliance with waterways rules and regulations • Engine start-up procedures • Holding a marine license from a relevant authority • Moving at a safe speed consistent with the conditions • Navigating to destination
<i>Hazards and environmental conditions</i> may include:	• Adverse weather • Eddies • Fast flowing streams and near still waters • Floating and submerged debris and snags • Fog or drizzle • Heat and cold • Reduced visibility due to after dark operations • Tidal flats • Time pressure • Undertows • Underwater hazards • Wildlife
<i>Environment</i> includes:	• By day or night and under illumination • In all weather conditions • In waters including: • enclosed waters • lakes and dams

	• non-tidal rivers • open waters • protected harbours • protected waters • tidal flats • tidal rivers • Under a range of water conditions
<i>Contingency and emergency drills</i> may include:	• Abandon ship drills • Action on capsize • Diagnosing and rectifying minor engine faults • Fire drills • Man overboard drills • Propeller replacement • Towing disabled vessels • Use of improvised rudder • Use of oars/improvised oars • Use of sail

Unit Sector(s)

Not applicable.