



**Australian Government**

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

# **PUASAR014A Operate and maintain a small powercraft and motor for rescue operations**

Release: 2

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### **Modification History**

<b>Release</b>	<b>TP version</b>	<b>Comments</b>
2	PUA12 V1	Layout adjusted.
1	PUA00 V8.1	First release in TGA.

### **Unit Descriptor**

This unit covers the competency required to maintain a small powercraft and motor, to operate a small powercraft and to direct crew during rescue operations.

This unit replaces PUASAR010B Undertake a rescue operation in a small powercraft.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

### **Application of the Unit**

The application of this unit in the workplace covers a range of open water rescue situations using small boats.

This unit is typically relevant for personnel from emergency services and/or volunteer organisations or organisations where surveillance and rescue operation in open water is required.

### **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
<p><b>1 Prepare powercraft and motor for operations</b></p>	<p>1.1 <i>Relevant logbooks</i> are reviewed for previous <i>operational feedback</i> and pre-use information is completed in accordance with organisational requirements.</p> <p>1.2 <i>Pre-launch check of motor and fuel cell</i> is completed and motor and fuel cell is installed on powercraft in accordance with organisational procedures and manufacturer's guidelines.</p> <p>1.3 Crewperson is overseen in <i>pre-launch checking of powercraft</i> and <i>ancillary equipment</i>.</p> <p>1.4 Own personal protective equipment (PPE) is applied or stowed as appropriate and application or stowing of PPE by crewperson is overseen.</p> <p>1.5 Two way radio equipment is prepared for operational communications.</p>
<p><b>2 Transport powercraft to launch site</b></p>	<p>2.1 Powercraft is <i>transported</i> to launch site ensuring safe manual handling by crew and other support personnel.</p> <p>2.2 Powercraft is unloaded and positioned at water's edge ready for operational activities in accordance with organisational procedures.</p> <p>2.3 Safety brief is completed with crewperson and other team members.</p>
<p><b>3 Launch and operate powercraft through surf</b></p>	<p>3.1 Own level of competence and that of crewperson is reviewed in relation to <i>surf conditions</i>.</p> <p>3.2 Powercraft is lead, lifted and dragged to water with crewperson.</p> <p>3.3 Motor is started when appropriate and safe to do so.</p> <p>3.4 Powercraft is boarded safely and a <i>secure position</i> is assumed.</p> <p>3.5 Crewperson is instructed to enter craft when appropriate in accordance with surf conditions.</p> <p>3.6 <i>Instructions</i> are communicated to crewperson as required.</p>
<p><b>4 Maintain a safe working environment for self and crew</b></p>	<p>4.1 Powercraft is operated safely around bathing public in accordance with prevailing surf conditions.</p> <p>4.2 Safe distances from bathing public and <i>hazards</i> in the water are maintained.</p> <p>4.3 Communication is maintained with shore and crewperson.</p> <p>4.4 Smooth and safe operational conditions of powercraft is maintained in accordance with prevailing surf conditions.</p>

**ELEMENT**

**PERFORMANCE CRITERIA**

	<p>4.5 <i>Emergency procedures</i> are implemented in accordance with organisational procedures.</p> <p>4.6 Powercraft is safely <i>manoeuvred</i> without operational motor.</p>
<p><b>5 Perform rescue and operational task</b></p>	<p>5.1 Requests for <i>assistance/tasks</i> from supervisor or <i>communicator</i> are acknowledged.</p> <p>5.2 Rescue/task information is communicated to crewperson.</p> <p>5.3 Operational tasks are safely performed in accordance with organisational policies and procedures.</p> <p>5.4 Crewperson is directed to retrieve casualty/object using appropriate <i>retrieval techniques</i>.</p>
<p><b>6 Return powercraft to shore safely</b></p>	<p>6.1 Safety and security of powercraft, powercraft driver, crewperson and casualty/cargo for beaching is maintained.</p> <p>6.2 Permission to return to shore is signalled in accordance with organisational procedures.</p> <p>6.3 Observation for hazards is maintained.</p> <p>6.4 Craft is beached on shoreline with appropriate speed/direction.</p> <p>6.5 Casualty is lead/cargo is lifted and removed from powercraft.</p> <p>6.6 Safe position of craft is maintained in accordance with organisational procedures and operational readiness.</p>
<p><b>7 Recover and restore powercraft</b></p>	<p>7.1 Powercraft is transported to storage using safe manual handling techniques.</p> <p>7.2 <i>Post-operational checks and maintenance of motor</i> are performed according to operational procedures and manufacturer's guidelines.</p> <p>7.3 Post-operational checks are supervised, powercraft is washed down and ancillary equipment is stored by crewperson.</p> <p>7.4 Powercraft and motor are stored in accordance with organisational requirements.</p> <p>7.5 Crewperson is debriefed and operational documentation is completed.</p>

## Required Skills and Knowledge

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

### Required Skills

- communicate effectively with colleagues
- handle boats confidently and safely (specifically when coming alongside and towing)
- lead crew
- safely handle casualty
- secure small boats using knots and lashings
- swim in the surf in moderate conditions
- use radio communication
- use rescue tubes
- use recognised signals

### Required Knowledge

- basic motor faults and associated repairs such as:
  - restarting a motor after capsize
  - loose ignition leads
  - air in fuel cell and motor
  - loose components
- duties of a powercraft crewperson
- effects of wind, tide, swell and ocean floor on surf conditions
- features and signs of rips, gutters, sweeps and currents
- local hazards and environmental threats
- local operating procedures and organisational standards
- onboard fire drill
- organisational policies and procedures (such as relevant legislation; operational, corporate and strategic plans; operational performance standards; operational policies and procedures; organisational personnel and occupational health and safety practices and guidelines; organisational quality standards; organisation's approach to environmental management and sustainability)
- pre- and post-operational maintenance of powercraft and motor
- self-rescue techniques
- surf awareness including beach safety zones
- surf hazards
- surf survival techniques
- types of waves and their characteristic features

## 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:

- operate a powercraft during rescue operations in a range surf conditions

### **Consistency in performance**

Competency should be demonstrated over time in a range of actual or simulated surf conditions.

### **Context of and specific resources for assessment**

#### **Context of assessment**

Competency should be assessed by completing rescue boat operations, exercises or scenarios.

#### **Specific resources for assessment**

Access is required to:

- equipment used in rescue boat operations
- open water
- range of challenging surf conditions relevant to the area of operations

### **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.

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|---|---|
| <b><i>Relevant logbooks</i></b> may include:                          | <ul style="list-style-type: none"> <li>• Equipment service logs</li> <li>• Patrol/service logs</li> <li>• Powercraft operations logs</li> </ul>   |
| <b><i>Operational feedback</i></b> may include:                       | <ul style="list-style-type: none"> <li>• Equipment damage</li> <li>• New or variations to hazards in the local environment</li> <li>• Operational readiness of equipment</li> </ul>   |
| <b><i>Pre-launch checking of motor and fuel cell</i></b> may include: | <ul style="list-style-type: none"> <li>• Correct operation of cooling system</li> <li>• Efficient starting of motor</li> <li>• Engine cowling securely attached</li> <li>• Engine runs and idles satisfactorily</li> <li>• Ensuring sufficient fuel for proposed operation</li> <li>• No damage or leaking from fuel cell or hoses</li> <li>• Operation of forward and reverse gears</li> <li>• Propeller safety guard securely attached in accordance with organisational requirements</li> <li>• Propeller undamaged and securely attached</li> </ul> |
| <b><i>Pre-launch checking of powercraft</i></b> may include:          | <ul style="list-style-type: none"> <li>• Checking handles and footstraps are secure</li> <li>• Checking pressure of inflatable pontoons</li> <li>• Ensuring all ancillary equipment is operational and correctly stowed</li> <li>• Ensuring no sharp areas</li> <li>• Ensuring no wear</li> </ul>   |
| <b><i>Ancillary equipment</i></b> may include:                        | <ul style="list-style-type: none"> <li>• Knife</li> <li>• Paddles</li> <li>• Rescue tube</li> <li>• Tow rope</li> <li>• Two way radio</li> <li>• Whistle</li> </ul>   |
| <b><i>Transport</i></b> may include:                                  | <ul style="list-style-type: none"> <li>• Carrying craft</li> <li>• Moving on a beach trolley</li> <li>• Towing with an ATV or 4WD</li> </ul>  |
| <b><i>Surf conditions</i></b> may include:                            | <ul style="list-style-type: none"> <li>• Calm water</li> <li>• Choppy</li> <li>• Large surf</li> <li>• Plunging shorebreak</li> <li>• Small surf</li> </ul>   |



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|---|---|
| <b><i>Secure position</i></b> includes:                                     | <ul style="list-style-type: none"> <li>• Grasping appropriate handles and placing feet in footstraps as required</li> </ul>   |
| <b><i>Instructions</i></b> may include:                                     | <ul style="list-style-type: none"> <li>• Moving fore or aft or leaning in or out of the powercraft to maintain trim</li> <li>• Performance of emergency procedures</li> <li>• Retrieval of casualty or object from the water</li> </ul>   |
| <b><i>Hazards</i></b> may include:  | <ul style="list-style-type: none"> <li>• Adverse weather</li> <li>• Choppy water surface condition</li> <li>• Large surf</li> <li>• Marine creature</li> <li>• People swimming</li> <li>• Rocks</li> <li>• Seaweed</li> </ul>   |
| <b><i>Emergency procedures</i></b> may include:                             | <ul style="list-style-type: none"> <li>• Abandoning powercraft drill</li> <li>• Acting as an outrigger in the event of motor failure in the surf zone</li> <li>• Fire on board powercraft drill</li> <li>• Powercraft capsize drill</li> </ul>  |
| <b><i>Manoeuvring powercraft without operational motor</i></b> may include: | <ul style="list-style-type: none"> <li>• Holding onto ropes while in the water to stabilise the craft and to avoid capsize</li> <li>• Surfing the powercraft to shore with operator and crew acting as outriggers</li> <li>• Swimming and repositioning the craft</li> <li>• Using paddles</li> </ul> |
| <b><i>Assistance/task</i></b> may include:                                  | <ul style="list-style-type: none"> <li>• Aquatic event safety surveillance</li> <li>• Rescuing distressed swimmer, drowning casualty</li> <li>• Transporting equipment/supplies</li> </ul>  |
| <b><i>Communicator</i></b> may include:                                     | <ul style="list-style-type: none"> <li>• Club/service team member</li> <li>• Distressed swimmer</li> <li>• Member of the public</li> <li>• Radio operator</li> </ul>  |
| <b><i>Retrieval techniques</i></b> may include:                             | <ul style="list-style-type: none"> <li>• Leaving powercraft for a swimming rescue with a rescue tube</li> <li>• Reaching over the edge of the craft to haul casualty/object on board</li> </ul>   |
| <b><i>Post-operational checks and maintenance of motor</i></b> may include: | <ul style="list-style-type: none"> <li>• Checking motor, propeller and propeller guard for damage and secure attachment</li> <li>• Correctly operating cooling system</li> <li>• Flushing motor</li> <li>• Refilling fuel cell</li> <li>• Running of motor</li> </ul>                                 |

## **Unit Sector(s)**

Not applicable.