



Australian Government

AHCMAR306 Operate mobile underwater vehicles

Release: 1

AHCMAR306 Operate mobile underwater vehicles

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to operate mobile underwater equipment such as towed cameras (TC) and remotely operated underwater vehicles (ROUV).

The unit applies to individuals who work in a marine conservation and management role under broad supervision and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources and for solving problems.

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

Pre-requisite Unit

Nil

Unit Sector

Marine (MAR)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for mobile underwater vehicle operations	1.1 Clarify the aim/objective and precise location/s of the activity with supervisor 1.2 Identify personnel involved and confirm their skills and experience in underwater vehicle operations 1.3 Identify and prepare mobile underwater vehicle 1.4 Identify and check associated equipment and support resources

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	required 1.5 Identify and interpret information relating to underwater location 1.6 Identify operational constraints under marine regulations and workplace safety procedures 1.7 Identify operational threats and contingencies, and mitigate threats to deployment of underwater vehicle 1.8 Confirm compliance with operating procedures and ensure a workplace health and safety risk assessment is performed
2. Operate mobile underwater vehicle	2.1 Transport mobile underwater vehicle to location 2.2 Assemble and conduct pre-dive checks on mobile underwater vehicle on location according to operator instructions and biosecurity procedures 2.3 Deploy and operate mobile underwater vehicle safely according to operational plan and workplace procedures 2.4 Monitor operational threats, adjust operating parameters and respond to contingency situations 2.5 Retrieve and secure mobile underwater vehicle and associated equipment
3. Complete underwater vehicle operations	3.1 Clean, maintain and store underwater vehicle and equipment according to operator instructions and biosecurity procedures 3.2 Retrieve data from mobile underwater vehicle and secure according to data management procedures 3.3 Maintain records and report activity and incidents according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret charts, maps, weather reports and other documentation to determine operating conditions for mobile underwater vehicle at a

Skill	Description
	specific location
Writing	Record monitoring information accurately using industry language, workplace format and protocols

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCMAR306 Operate mobile underwater vehicles	Not applicable	The unit has been created to address an emerging skill or task required by industry	Newly created

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC MAR306 Operate mobile underwater vehicles

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion, prepared and operated a mobile underwater vehicle, and has:

- read, interpreted and completed documentation, including:
 - marine charts/maps
 - marine forecasts
 - operating and emergency procedures
 - logs associated with underwater vehicle operation
- identified and prepared mobile underwater vehicle and associated equipment
- transported mobile underwater vehicle to and from location
- assembled mobile underwater vehicle and conducted pre-dive checks on location, with particular attention to:
 - tethers, attachments, mounts and retrieval systems
 - seals and O-rings
 - soft pads
 - electrical connections/power supply
 - lenses and protective covers
- deployed and operated mobile underwater vehicle safely according to operational plan and workplace procedures
- monitored operational threats and adjusted operating parameters as required
- responded to contingency situations
- retrieved and secured mobile underwater vehicle and associated equipment
- cleaned, maintained and stored underwater vehicle and equipment
- retrieved records and data from vehicle/camera
- recorded underwater vehicle operations
- performed a workplace health and safety (WHS) risk assessment for underwater vehicle operations.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- appropriate techniques and workplace procedures for the operation of mobile underwater vehicles for conservation work
- identification and names of types and parts of mobile underwater vehicles and associated equipment, including:
 - winches and cables
 - monitors
 - power supply
 - global positioning system (GPS) and sonar
- workplace procedures and marine regulations that relate to mobile underwater vehicles
- marine weather, sea conditions and forecasting
- interpreting marine charts and sonar maps/records
- logistical and technical requirements for operating mobile underwater vehicles
- the basic physics of the underwater environment and the relationships between equipment/monitoring techniques and depth, pressure, flow and light penetration
- computer hardware and software systems that support marine monitoring work
- equipment risks associated with operation of mobile underwater vehicles, including:
 - condensation
 - pressure
 - water flow
 - fouling and retrieval complications
 - maintenance – including age, contamination and corrosion
- biosecurity measures for operation of mobile underwater vehicles
- marine WHS, hazard identification and risk control measures.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in the field or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - mobile underwater vehicle and associated equipment
 - tools for assembling, dismantling and maintaining equipment
 - personal protective equipment
- specifications:
 - workplace procedures and processes for mobile underwater vehicle operations
 - manufacturer operating instructions for mobile underwater vehicle and equipment

- workplace instructions
- relationships:
 - supervisor.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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