



Australian Government

DEFWDV012 Perform underwater beach and waterway surveys

Release: 1

DEFWDV012 Perform underwater beach and waterway surveys

Modification History

Release 1. This is the first release of this unit of competency in the DEF Defence Training Package.

Application

This unit specifies the skills and knowledge required to conduct underwater surveys of beaches and waterways, such as estuaries and lakes.

It includes preparing and conducting an underwater beach and waterway survey relating to the potential establishment of structures such as bridges or piers, or to determine the feasibility of establishing a beachhead.

This unit relates, in part, to existing standards in the Australian Diver Accreditation Scheme (ADAS).

This unit applies to persons working as Defence Divers. but is applicable to all individuals who work in this field

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Persons undertaking this unit work independently and perform specific tasks in a range of contexts that could be unpredictable.

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

Pre-requisite Unit

Not applicable

Competency Field

Work Diving

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for underwater survey

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|------------|--|
| 1.1 | Identify and determine survey task and available worksite data |
| 1.2 | Develop survey plan consistent with dive plan in accordance with organisational procedures |
| 1.3 | Select and inspect survey equipment |
| 1.4 | Secure survey equipment to/from dive site |
| 1.5 | Assess access obstructions and other underwater hazards to determine risks and manage risk control measures in accordance with dive plan |
| 2 | Conduct underwater survey |
| 2.1 | Secure survey equipment on self for ease of accessibility and lack of interference to mobility and dive equipment |
| 2.2 | Measure bottom gradient in accordance with survey plan |
| 2.3 | Determine bottom composition and identify and record sub-surface features, channels and obstacles, in accordance with survey plan |
| 3 | Complete post survey procedures |
| 3.1 | De-service and store survey equipment after use in accordance with organisational procedures |
| 3.2 | Document survey results and submit in accordance with organisational procedures and survey plan |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces but is not equivalent to DEFVDV012B Perform underwater beach and waterway surveys.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

Assessment Requirements for DEFWDV012 Perform underwater beach and waterway surveys

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one underwater survey of a beach/waterway (which should include at least two of: bottom gradient, bottom composition, sub surface features marking of obstacles/channels) and include:

- applying relevant legislation, standards and organisational policies and procedures
- applying safe diving principles and relevant risk control measures
- carrying and securing equipment throughout dive
- determining scope of survey task
- developing beach and underwater survey plans
- documenting beach/waterway survey outcomes including:
 - measuring bottom gradient
 - determining bottom composition
 - recording waterway sub-surface features
 - identifying obstacles/channels and waterway hazards
 - making underwater field notes and sketches
- using survey equipment relevant to beach and underwater surveys effectively.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- dive equipment
- dive physics
- dive physiology and medicine including:
 - heat and cold illnesses
 - compression illnesses
 - decompression illnesses
- diving descent and ascent techniques
- general diving safety awareness including:
 - diving in harbours

- diving in tidal waters, currents and tides
- diving on and/or near a ship's bottom
- lost/separated
- entrapment/foul lines
- marine animal threats
- pollution/weeds
- working in confined spaces
- oceanography
- relevant legislation, and organisational policies and procedures
- relevant organisational documentation
- relevant references and Australian Standards
- underwater beach/waterway survey techniques including:
 - waterway bottom gradient
 - waterway bottom composition
 - waterway sub-surface features
 - obstacles/channels and waterway hazards
- underwater workplace hazards.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

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

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- ocean with a range of oceanic, diurnal and nocturnal environments
- applicable documentation including organisational procedures, regulations, codes of practice and operation manuals.

When practicable, assessment should relate to the diver's vocational focus.

Links

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