



Australian Government

DEFWDV036 Perform underwater surveys

Release: 1

DEFWDV036 Perform underwater surveys

Modification History

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

Application

This unit describes the performance outcomes, 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 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, dive plan 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

Defence Work Diving.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

- | | |
|--|---|
| 1 Prepare for underwater survey | 1.1 Identify and determine survey task and available worksite data

1.2 Develop survey type and dive plan in accordance with organisational procedures

1.3 Assess access obstructions and other surface and/or sub-surface hazards to determine risks and manage risk control measures in accordance with dive plan

1.4 Select and inspect survey equipment

1.5 Secure survey equipment to and from dive site |
| 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 Complete post-dive survey equipment serviceability checks in accordance with manufacturer specifications and report defects, as required

3.2 Re-stow surface-supply panel and surface-supplied breathing apparatus (SSBA) equipment in accordance with organisational procedures

3.3 Conduct post-mission analysis of 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 DEF Defence Training Package Companion

Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to DEFWDV012 Perform underwater beach and waterway surveys.

Links

Companion Volume Implementation Guides are found on VETNet -

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

Assessment Requirements for DEFWDV036 Perform underwater surveys

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation, standards and organisational policies and procedures
- applying safe diving principles and relevant risk control measures
- applying SCUBA, surfaced-supplied and/or CCBA operating techniques
- carrying and securing equipment throughout dive
- conducting and documenting an underwater survey, including at least two of the following:
 - bottom composition
 - bottom gradient
 - sub-surface features marking of obstacles or channels
- determining scope of survey task
- developing beach and underwater survey plans
- maintaining records according to organisational policies and procedures
- using survey equipment relevant to beach and underwater surveys effectively
- wearing of self-contained underwater breathing apparatus (SCUBA), surface-supplied and/or closed-circuit breathing apparatus (CCBA).

Knowledge Evidence

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

- dive equipment
- dive physics
- dive physiology and medicine, including:
 - compression illnesses
 - decompression illnesses
 - heat and cold 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
- entrapment/foul lines
- lost/separated
- marine animal threats
- pollution/weeds
- working in confined spaces
- oceanography
- organisational policies and procedures
- relevant legislation
- relevant organisational documentation
- relevant references and Australian Standards
- SCUBA, surface-supplied and/or CCBA operating techniques
- underwater beach/waterway survey techniques, including:
 - bottom composition
 - bottom gradient
 - obstacles/channels and hazards
 - sub-surface features
- underwater survey types and characteristics, including but not limited to:
 - beaches
 - harbours
 - lakes
 - canals
- underwater workplace hazards.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

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 simulations
- applicable documentation, including legislation, regulations, codes of practice, workplace procedures and operation manuals

- documentation specific to the dive operation, including dive plan and risk assessment
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry.

Links

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