



Australian Government

DEFMIL028 Navigate in remote and unmodified landscapes

Release: 1

DEFMIL028 Navigate in remote and unmodified landscapes

Modification History

Release	Comments
1	This unit was released in DEF Defence Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to DEFCA014 Navigate in remote and unmodified landscapes. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to navigate in remote and unmodified landscapes. In the context of this unit an unmodified landscape is one with few modifications to the natural surface or the natural environment so that track alignment is indistinct and signage is generally not provided. The area may include steep sections of unmodified surfaces and other difficult terrain and man-made hazards. In a military context the navigation can be conducted on foot (for example; infantry) or by vehicle (for example; armour). This unit of competency requires the individual to navigate by both day and night to a destination, within standard tolerances of accuracy, without the use of electronic navigation aids such as GPS.

This unit was developed for military personnel required to operate in remote and unmodified landscapes usually in a deployed operational environment, but is applicable to any individual who is required to navigate in remote and unmodified landscapes.

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.

Those undertaking this unit would work independently and as part of a team under direct and/or indirect supervision. They would use discretion and judgement, and take responsibility for the quality of their outputs while performing specific tasks in a broad range of unpredictable contexts.

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

Competency Field

Military Skills

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Use a map	1.1 Select the type of map(s) suitable for the activity. 1.2 Identify possible sources of error and inaccuracies on the map. 1.3 Identify symbols and information contained on the map that may be used in navigation. 1.4 Identify the way in which relevant symbols and information on the map can be used in navigation.
2. Use a compass	2.1 Identify the essential features of a compass. 2.2 Use a compass to maintain a designated course. 2.3 Use a compass to reflect understanding of factors which affect accuracy.
3. Plan a route in unmodified landscapes	3.1 Apply symbols and information contained on the map to plan an efficient route/course suitable to navigation and equipment. 3.2 Obtain additional information to assist in the preparation of a navigation data sheet from the map and from other suitable sources of information. 3.3 Identify hazards and obstacles to the route. 3.4 Prepare a navigation data sheet/route card. 3.5 Identify emergency or contingency routes.
4. Navigate in unmodified landscapes	4.1 Maintain orientation of map to surroundings. 4.2 Identify possible sources of navigation error in specific locations. 4.3 Demonstrate combined use of map, compass and other techniques whilst following a route in unmodified landscapes. 4.4 Demonstrate techniques for distance estimations of travel in the absence of identifying features. 4.5 Maintain the designated course whilst bypassing hazards and obstacles. 4.6 Demonstrate maintenance of a course in unmodified landscapes. 4.7 Fix position accurately and regularly using a combination of appropriate navigation techniques. 4.8 Choose route for the surroundings and conditions. 4.9 Fix position and identify unknown features using navigation

	techniques when lost.
--	-----------------------

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication NA					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to DEFCA014 Navigate in remote and unmodified landscapes.

Links

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for DEFMIL028 Navigate in remote and unmodified landscapes

Modification History

Release	Comments
1	These Assessment Requirements were released in DEF Defence Training Package release 1.0 and meet the Standards for Training Packages. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- applying problem solving techniques
- maintaining a compass bearing in poor visibility and/or extreme conditions
- observing surroundings
- making decisions
- plotting a navigation route accurately and within accepted tolerances when following a route
- maintaining positional awareness
- reacting effectively to changes in the operating environment that require re-planning
- navigating both by day and night
- navigating without the use of electronic navigation aids such as GPS
- calculating speed, distance and estimating time taken

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- cartographic symbols and legends
- grid/magnetic conversion
- map and chart types
- methods for determining current location
- route planning techniques and calculations

- factors affecting navigation techniques in extreme environmental conditions
- map types and sources of error
- use of a compass and factors that affect their accuracy
- route planning and issues that should be considered in extreme environmental conditions
- estimation of travelling times in unmodified landscape and/or difficult terrain/conditions
- techniques for estimating distance travelled in poor visibility
- back bearings and resections
- techniques to navigate around obstacles

Assessment Conditions

Competency should be demonstrated navigating a route on a minimum of three occasions; with at least two navigations being conducted at night. The route should contain a number of legs requiring one or more changes in direction.

Competency must be assessed in an area that has an unmodified landscape.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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