



Australian Government

SISOFLD008 Navigate in extremely difficult tracked and untracked environments

Release: 1

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Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to navigate in extremely difficult tracked and untracked environments during any type of outdoor recreation activity.

The unit provides skills to navigate in environments where natural and constructed features marked on maps may be very unreliable. Tracks are indistinct, unformed and have no modification to the natural surface. They generally have no signage or route markers at any point. Tracked and untracked areas may feature constant and unpredictable natural obstacles and, along with changes in weather and visibility, significant adjustments to the planned route would be common. Tracks could be graded according to the Australian Walking Track Grading System and might include features of grade 5.

This unit applies to any type of organisation that delivers outdoor recreation activities including commercial, not-for-profit and government organisations.

It applies to leaders, guides or instructors who use these skills when leading participants during activities where navigation skills are required.

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

Pre-requisite Unit

Nil

Competency Field

Field Operations

Unit Sector

Outdoor Recreation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

PERFORMANCE CRITERIA

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

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|--|---|
| 1. Plan for navigation. | 1.1. Obtain and become familiar with maps, appropriate for the activity, and features that will assist with navigation at the location.
1.2. Interpret map symbols and information to plan an efficient route according to specific activity requirements.
1.3. Select a compass suitable for navigation requirements.
1.4. Calculate grid, magnetic and true north bearings using map, compass and protractor.
1.5. Prepare a navigation data sheet, and identify emergency or contingency escape routes. |
| 2. Navigate a route in extremely difficult tracked and untracked environments. | 2.1. Orientate map to surroundings using landmarks and compass and identify factors that affect accuracy.
2.2. Follow the planned route using map, natural features and compass to assist.
2.3. Use global positioning systems (GPS) and altimeters as navigation aids to maintain route.
2.4. Use techniques to estimate distance travelled in the absence of identifying features.
2.5. Utilise a combination of navigation techniques to bypass large obstacles.
2.6. Identify unfamiliar features and hazards in difficult environmental conditions using map and compass to maintain route.
2.7. Utilise a combination of navigation techniques to identify unfamiliar features and fix position when lost.
2.8. Make required adjustments to route according to prevailing conditions, and navigate using map, natural features, compass, GPS and altimeter as required. |

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS

DESCRIPTION

- | | |
|--------------------|--|
| Reading skills to: | <ul style="list-style-type: none"> • interpret complex and potentially unfamiliar information from maps • interpret factual activity plan information in familiar formats. |
| Writing skills to: | <ul style="list-style-type: none"> • develop detailed navigation data sheets using correct |

terminology and symbols.

- Numeracy skills to:
- interpret and calculate detailed numerical data involving distances, times, altitudes, heights, depths and gradients.
 - interpret and calculate degrees, mils and angles.
- Problem-solving skills to:
- resolve significant problems associated with indistinct tracks and route adjustments
 - resolve problems associated with vague land features and implied mapping features.
- Technology skills to:
- use a range of technologies to access information about routes.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume Implementation Guides -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>