Australian Government

Department of Education, Employment and Workplace Relations

FPICOT3202B Navigate in remote or trackless areas

Release: 1

FPICOT3202B Navigate in remote or trackless areas

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to navigate in untracked, remote areas in situations where difficult environmental conditions and poor visibility are likely to occur. The unit includes interpretation and use of maps and other navigation aids

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPICOT3202A Navigate in remote or trackless areas

Application of the Unit

Application of the unit

The unit involves navigating in a remote or trackless area in a forest environment setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for navigation	1.1. Applicable ***occupational health and safety*** (OHS), ***environmental***, ***legislative*** and ***organisational requirements*** relevant to navigating in a remote or trackless areas are identified and followed
	1.2. ***Information*** is gathered and ***relevant factors*** are identified and checked with ***appropriate personnel***
	1.3. Suitable ***maps***, ***equipment*** and ***navigation aids*** are selected and checked for accuracy, currency and operational effectiveness in line with manufacturer recommendations
	1.4. Faults or errors in maps and equipment are detected and corrected
	1.5. ***Communication*** with others is established and maintained in line with OHS requirements
2. Plan the route	2.1. Route is planned in line with assignment instructions and OHS requirements
	2.2. Maps are examined to identify relevant ***symbols***, ***information***, ***navigation data and environmental requirements***
	2.3. Accurate grid and magnetic bearings are calculated using maps and equipment in line with assignment instructions
	2.4. Emergency or contingency exit routes are planned and other ***risks*** are planned for
	2.5. ***Limitations*** in planning are specified and assistance is sought in line with organisational requirements
3. Conduct navigation	3.1. Navigation is undertaken in line with planned route and schedule
	3.2. Maps are correctly orientated to ***surroundings*** in line with planned route
	3.3. Equipment and navigation aids are used in line with manufacturer recommendations
	3.4. Alternative routes are navigated to bypass ***obstacles*** and improve efficiency of route or course
	3.5. Impact on the environment as a result of navigation is minimised

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to use and maintain relevant tools and equipment
- Communication skills sufficient to use appropriate communication and interpersonal techniques and methods with colleagues and others
- Literacy skills sufficient to follow legislation, regulations, standards, codes of practice and established safe practices and procedures for navigating in remote or trackless areas; record and report workplace information; maintain documentation
- Numeracy skills sufficient to calculate bearings using maps and compass correctly
- Problem solving skills sufficient to identify problems and equipment faults; demonstrate appropriate response procedures; interpret maps, charts, distances, grid references, relevant symbols, map meaning and line types; estimate resource and equipment requirements; solve problems and bypass obstacles; locate own position on a map

Required knowledge

- Applicable commonwealth, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for navigating in a remote or trackless area
- Environmental protection requirements, including the safe disposal of waste material and returning the environment to its original or near to original condition on completion of activity
- Organisational and site standards, requirements, policies and procedures for navigating in a remote or trackless areas
- Environmental risks and hazards
- Types of maps and charts, and their uses
- Representation of topographic features on maps and plans
- Common scales used on maps and plans
- Features and use of a compass and factors that affect its accuracy
- Advantages and disadvantages of different map and chart types and sources of error
- Techniques for estimating distance travelled within a particular activity context
- Established communication channels and protocols
- Problem identification and resolution strategies, and common fault finding techniques
- Types of tools and equipment, and procedures for their safe use and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently navigate in a remote or trackless area, demonstrating the correct orientation and use of maps, plans and compass
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of: • following applicable commonwealth, state or territory legislative and regulatory requirements and codes of practice relevant to navigating in a remote or trackless area • following organisational policies and procedures relevant to navigating in a remote or trackless area • selecting, interpreting, and applying maps and other relevant information in written, diagrammatic and verbal form • using maps, compass and navigation aids to navigate in remote or trackless area, confirming factors affecting the use of navigation equipment • planning and conducting an efficient navigation, effectively bypassing obstacles within designated timeframes

Context of and specific resources for assessment	• Competency is to be assessed in the workplace or realistically simulated workplace
	• Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
	• Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
	• Assessment is to follow relevant regulatory or Australian Standards requirements
	• The following resources should be made available:
	  • workplace location or simulated workplace
	  • materials and equipment relevant to

EVIDENCE GUIDE

	undertaking work applicable to this unit • specifications and work instructions
Method of assessment	• Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package • Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge • Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills • Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge • Assessment may be applied under project-related conditions (real or simulated) and require evidence of process • Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances • Assessment may be in conjunction with assessment of other units of competency • The assessment environment should not disadvantage the candidate • Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English • Where the participant has a disability, reasonable adjustment may be applied during assessment • Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work

RANGE STATEMENT

situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements: are to be in line with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices, including required actions relating to forest fire
- manual handling including shifting, lifting and carrying

Environmental requirements may include:

- legislation
- organisational policies and procedures
- workplace practices

Legislative requirements: are to be in line with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance

RANGE STATEMENT

	• procedural manuals • quality and continuous improvement processes and standards • OHS, emergency and evacuation procedures • ethical standards • recording and reporting requirements • equipment use, maintenance and storage requirements • environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
Information may relate to:	• local inhabitants • type of terrain or features of the route • access and exit routes • natural protection or shelter • land management and legislative requirements • guide books
Relevant factors may relate to:	• types of terrain and gradient • weather conditions • obstacles • hazards and access to required resources and facilities • distance • estimated travelling time • magnetic bearings
Appropriate personnel may include:	• supervisors • clients • colleagues • line management
Maps may include:	• cadastral and topographic maps • charts • guide books • aerial photographs • sketches and cave maps • diagrams
Equipment may include:	• compass • track and survey markers • beacons • personal protective equipment and clothing • global positioning system (GPS) units

RANGE STATEMENT

Navigation aids may include:

- track and creek junctions and crossings
- survey markers
- beacons
- track markers
- cairns
- paths
- signs
- arrows
- compass
- man-made objects or features

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice

Symbols and information may include:

- grid lines and numbers
- contour lines
- magnetic variation
- scale
- map legend
- topographic features
- markers and beacons
- water depth

Navigation data may include:

- grid reference points
- grid and magnetic bearings
- distances
- estimated travelling times
- height gain and loss
- gradient
- identifiable features
- exit routes

Risks may include:

- weather
- obstacles
- availability of resources, such as:
  - water

RANGE STATEMENT

- camp sites
- rest stops
- type of terrain
- access and exit routes
- natural protection or shelter

Limitations may relate to:

- job role and responsibilities
- own competency level
- industry requirements
- own understanding of risk identification processes
- own interpretation of maps
- legislation
- regulations and procedures
- legal responsibilities
- OHS and environmental requirements

Surroundings may include:

- ground/terrain
- bodies of water
- beacons and markers
- natural formations
- landmarks
- man-made features

Obstacles may include:

- thick vegetation
- drops and climbs
- marshes and bogs
- fog
- rivers
- lakes and dams
- tides
- hazards, such as rocks

Unit Sector(s)

Not Applicable

Competency field

Competency field Common Technical