



Australian Government

Department of Education, Employment and Workplace Relations

FPICOT3202A Navigate in remote or trackless areas

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit specifies 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

This unit replaces FPIC2008A Navigate in remote or trackless areas

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Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in forest and forest products operations of all sizes. The unit applies to a forest environment and involves application of skills and knowledge at a tradesperson level. These skills and knowledge are to be used within the scope of the persons job and authority

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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide

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Elements and Performance Criteria

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Element	Performance Criteria
1 Prepare for navigation	1.1 Applicable Occupational Health and Safety (OHS), legislative and organisational requirements relevant to navigation are specified and complied with 1.2 Information is gathered and relevant factors 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 accordance with manufacturer's recommendations 1.4 Faults or errors in maps and equipment are detected and corrected 1.5 Communication with others is established and maintained in accordance with OHS requirements
2 Plan the route	2.1 Route is planned in accordance with assignment instructions and OHS requirements 2.2 Maps are examined to identify relevant symbols and information and navigation data 2.3 Accurate grid and magnetic bearings are calculated using maps and equipment in accordance with assignment instructions

- 2.4 Emergency or contingency exit routes are planned and other **risks** planned for
 - 2.5 **Limitations** in planning are specified and assistance sought in accordance with organisational requirements
- 3 Conduct navigation
 - 3.1 Navigation is undertaken in accordance with planned route and schedule
 - 3.2 Maps are correctly orientated to **surroundings** in accordance with planned route
 - 3.3 Equipment and navigation aids are used in accordance with manufacturer's recommendations
 - 3.4 Alternative routes are navigated to bypass **obstacles** and improve efficiency of route or course

Required Skills and Knowledge

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

Required skills include:

- comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for navigating in remote or trackless areas
- use and maintain relevant tools and equipment
- identify problems and equipment faults and demonstrate appropriate response procedures
- use appropriate communication and interpersonal techniques and methods with colleagues and others
- accurately record and report workplace information, and maintain documentation
- accurately calculate bearings using maps and compass correctly
- accurately interpret maps, charts, distances, grid references, relevant symbols, map meaning and line types
- accurately estimate resource and equipment

Required knowledge and understanding includes:

requirements

effectively solve problems and bypass obstacles

accurately locate own position on a map

applicable Commonwealth, State or Territory legislative, regulatory or certification requirements and codes of practice relevant to navigating in remote or trackless areas

organisational and site standards, requirements, policies and procedures for navigation

principles of cultural diversity and access and equity

environmental protection requirements, including the safe disposal of waste material

established communication channels and protocols

problem identification and resolution

types of tools and equipment and procedures for their safe use, operation and maintenance

types of maps, charts and scales 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 their accuracy

advantages and disadvantages of different map and chart types and sources of error

techniques for estimating distance travelled within a particular activity context

procedures for recording, reporting and maintaining workplace records and information

appropriate mathematical procedures for estimation and measurement

KEYCOMPETENCIES

The seven key competencies represent generic skills considered necessary for effective

participation by an individual in the workplace Performance Level 1 - at this level, the candidate is required to undertake tasks effectively Performance Level 2 - at this level, the candidate is required to manage tasks Performance Level 3 - at this level, the candidate is required to use concepts for evaluating and reshaping task

Key Competency	Example of Application	Performance Level
How are ideas and information communicated?	By communicating in simple language to confirm work requirements, convey information and requests to colleagues, and report and record outcomes of navigation	1
How can information be collected, analysed and organised?	By collecting, organising and understanding information from maps and plans	2
How are activities planned and organised?	By organising work activities in the correct sequence for navigation to be completed within the designated timeframes	2
How is team work used?	By using effective communication and interpersonal techniques with colleagues and others to maximise confidence and safety	1
How are mathematical ideas and techniques used?	By calculating time to complete tasks and estimating distances, resource and equipment requirements	2
How are problem solving skills applied?	By planning safe and effective navigation routes which anticipate likely obstacles and hazards	1
How is the use of technology applied?	By selecting and using equipment to ensure effective navigation of remote or trackless routes	1

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Packag

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can 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

Comply with applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice, including OHS, environmental and organisational policies and procedures, relevant to navigating in remote or trackless areas

Communicate effectively and work safely with others in the work area

Effectively select, interpret, and apply maps and other relevant information in written, diagrammatic and oral form

Accurately use maps, compass and navigation aids to navigate in remote or trackless area confirming factors affecting the use of navigation equipment

Plan and conduct 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 essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context

Assessment is to comply with relevant regulatory or Australian Standards requirements

The following resources should be made available:

workplace location or simulated workplace

materials and equipment relevant to navigation

specifications and work instructions

Method of assessment

Assessment must satisfy the endorsed Assessment Guidelines of the FPI05 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 underpinning knowledge

Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies

Assessment methods must confirm the ability to access and correctly interpret and apply the essential underpinning 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 in the Performance Criteria is detailed below

OHS requirements are to be in accordance with Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures. Requirements may include:

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

Legislative requirements are to be in accordance with applicable legislation from all levels of government that affect organisational operation. Requirements 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
heritage and traditional land owner issues

Organisational requirements

may include legal, organisational and site guidelines, policies and procedures relating to own role and responsibility, quality assurance, procedural manuals, quality and continuous improvement processes and standards, OHS, emergency and evacuation, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage,

	environmental management (waste 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 and 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, and diagrams
Equipment	may include compass, track and survey markers, beacons, personal protective equipment and clothing, GPS units
Navigation aids	may include track and creek junctions and crossings, survey markers, beacons, track markers, cairns, paths, signs, arrows, compass and man-made objects or features
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/loss, gradient, identifiable features and exit routes
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 and body language

Risks

may include weather, obstacles, availability of resources (water, campsites, 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, complying with OHS requirements, legal responsibilities

Surroundings

may include ground/terrain, bodies of water, beacons and markers, natural formations, landmarks and 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

Common Technical
Common Technical