



Australian Government

CPPSIS4032A Plan and conduct survey expeditions

Release 1

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Modification History

Unit revised and not equivalent to CPPSIS4012A Plan and conduct survey expeditions
Element structure, performance criteria, and critical aspects reviewed to reflect workplace requirements

References to sustainability strengthened

Skills and knowledge requirements and the range statement updated

Unit Descriptor

This unit of competency specifies the outcomes required to plan and successfully conduct remote area survey expeditions. It requires the ability to plan and apply survival techniques for expeditions, while focusing on project objectives. It also requires the ability to work with others and to perform key organisational requirements, on site and often in a lead role. Functions would be carried out under limited supervision and within organisational guidelines.

Application of the Unit

This unit of competency supports the application of sound verbal communication, organisational, problem-solving and time management skills, and the use of technology. The skills and knowledge acquired upon completion of this unit would apply to the needs of employees in supporting positions for surveying and mapping.

Licensing/Regulatory Information

Licensing, legislative, regulatory and certification requirements may impact on this unit. Incorporate these requirements according to state, territory and federal legislation.

Pre-Requisites

Nil

Employability Skills Information

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 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.

Elements and Performance Criteria

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|---|-------------------------------|-----|---|
| 1 | Plan a survey expedition. | 1.1 | <i>Objectives</i> and principal work activities are defined. |
| | | 1.2 | <i>Equipment</i> is prepared according to <i>organisational policy</i> , with guidance from <i>relevant supervisor</i> . |
| | | 1.3 | Logistical considerations are incorporated into the expedition planning to ensure that supplies support the location, duration and size of the field trip. |
| | | 1.4 | Supplies are obtained according to inventory and securely stowed for a field trip. |
| | | 1.5 | Emergency supplies and emergency equipment are prepared. |
| | | 1.6 | <i>OHS</i> requirements are planned and adhered to. |
| 2 | Organise a survey expedition. | 2.1 | Survey camp site is prepared and maintained to comply with OHS requirements. |
| | | 2.2 | Daily OHS requirements are followed. |
| | | 2.3 | <i>Environmental impact</i> from camp activities is minimised and any waste generated is disposed of in an <i>environmentally friendly manner</i> . |
| | | 2.4 | Maps, photos and other available data are used to plan survey expeditions. |

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| 3 | Apply safety and survival skills. | 3.1 | <i>Emergency requirements</i> for survival are discussed to ensure that they are available when required. |
| | | 3.2 | <i>Emergency survival and search and rescue techniques</i> are applied if required. |
| | | 3.3 | Safety procedures are followed whenever helicopters are in the vicinity. |
| 4 | Conduct follow-up activity. | 4.1 | On return, equipment is unloaded and stored in the prescribed storage area according to organisational guidelines. |
| | | 4.2 | <i>Required documentation</i> is completed. |

Required Skills and Knowledge

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

Required skills

- communication skills to:
 - discuss vocational issues effectively with colleagues
 - impart knowledge and ideas through oral, written and visual means
 - conduct navigation operations
- literacy skills to:
 - assess and use workplace information
 - read and record data, and write technical reports
 - research and access routine sources of spatial data
- operate four-wheel drives
- organisational skills to:
 - prepare and administer documentation
 - prioritise activities to meet contractual requirements
 - plan expeditions

Required knowledge

- emergency survival techniques and procedures
- expedition planning processes
- industry requirements and standards
- operations of camping equipment
- organisational policies and guidelines
- safe work practices
- statutory requirements for the operation of vehicles

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 Package.

Overview of assessment	This unit of competency could be assessed on its own or in combination with other units relevant to the job function, for example CPPSIS4028A Organise equipment and supplies.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>A person who demonstrates competency in this unit must be able to provide evidence of:</p> <ul style="list-style-type: none">• applying known solutions to a range of immediate site problems• accessing and interpreting design information to identify the components to be measured and monitored• displaying ability to function effectively in emergency situations• knowledge of emergency survival procedures• planning basic resources.
Specific resources for assessment	<p>Resource implications for assessment include access to:</p> <ul style="list-style-type: none">• assessment instruments, including personal planner and assessment record book• assignment instructions, work plans and schedules, policy documents and duty statements• registered training provider of assessment services• relevant guidelines, regulations and codes of practice• suitable venue and equipment. <p>Access must be provided to appropriate learning and assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.</p>
Context of assessment	Holistic: based on the performance criteria, evidence guide, range statement, and required skills and knowledge.
Method of assessment	<p>Demonstrated over a period of time and observed by the assessor (or assessment team working together to conduct the assessment).</p> <p>Demonstrated competency in a range of situations, that may include customer/workplace interruptions and involvement in related activities normally experienced in the workplace.</p>

Obtained by observing activities in the field and reviewing induction information. If this is not practicable, observation in realistic simulated environments may be substituted.

Guidance information for assessment

Assessment requires that the clients' objectives and industry expectations are met. If the clients' objectives are narrowly defined or not representative of industry needs, it may be necessary to refer to portfolio case studies of a variety of surveying and spatial information services requirements to assess competency.

Oral questioning or written assessment and hypothetical situations (scenarios) may be used to assess underpinning knowledge (in assessment situations where the candidate is offered a preference between oral questioning or written assessment, questions are to be identical).

Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.

All practical demonstration must adhere to the safety and environmental regulations relevant to each State or Territory.

Where assessment is for the purpose of recognition (recognition of current competencies [RCC] or recognition of prior learning [RPL]), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time.

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge.

Assessment processes will be appropriate to the language and literacy levels of the candidate and any cultural issues that may affect responses to the questions, and will reflect the requirements of the competency and the work being performed.

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. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Objectives may include:

- agreed client requirements
- written survey data specifications.

Equipment may include:

- camp equipment
- surveying instruments
- vehicles.

Organisational policy may include:

- code of ethics
- company standards
- legislation relevant to the work or service function
- manuals
- OHS policies and procedures
- personnel practices and guidelines outlining work roles and teamwork responsibilities
- remote area operations, such as catering and camping requirements.

Relevant supervisor may include:

- relevant work site personnel
- surveyor.

OHS may include:

- Australian standards
- development of site safety plan
- guidelines for survival in remote areas
- guidelines for hygienic food preparation and storage
- identification of potential hazards
- inspection of equipment and supplies
- safe operation of gas and electric appliances
- training staff in OHS requirements
- use of personal protective clothing
- use of safety equipment and signage.

Environmental impact may include:

- contamination of soil, groundwater and surface water
- erosion
- leakage of chemicals.

Environmentally friendly manner may include:

- placing hazardous material such as chemical-based products, paint cans and used oil into a designated bin and taking it to an appropriate disposal centre
- placing recyclable rubbish such as plastic, paper, cans, cardboard, glass and plastic bottles into a designated bin
- separating degradable and non-degradable waste.

Emergency requirements may include:

- food
- fire
- shelter
- water.

Emergency survival and search and rescue techniques may include:

- detection and use of emergency food and water supplies
- maintenance of positive mental attitudes
- map reading
- navigation
- principles of emergency search and rescue operations
- special vehicle operation.

- Required documentation*** may include:
- expedition report
 - field records
 - survey plots.

Unit Sector(s)

Surveying and spatial information services

Custom Content Section

Not applicable.