



Australian Government

CPPSIS3015 Collect basic surveying data

Release: 1

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Modification History

Release 1.

This version first released with CPP Property Services Training Package Version 3.

Replaces superseded non-equivalent CPPSIS3015A Collect spatial data.

Application

This unit of competency specifies the outcomes required to collect basic surveying data using measurements taken in the field. Basic surveying data refers to measurements of distances, angles and height difference with accuracy of one centimetre or better. The unit covers preparing for data collection by clarifying the data collection tasks and equipment to be used, and identifying and reporting hazards. The unit also covers operating equipment to take basic surveying measurements, and performing required data reductions and computations to ensure the accuracy of collected data before leaving the field. It requires the ability to follow standard operating procedures for setting up, using, checking and storing equipment; and completing records and documentation.

The unit supports those who work under supervision in a surveying and spatial information services team, in positions relating to field data collection.

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

Pre-requisite Unit

Nil

Unit Sector

Surveying and spatial information services

Elements and 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.
1. Prepare for data collection tasks.	1.1. Data collection requirements and basic surveying tasks are clarified with <i>appropriate persons</i> .
	1.2. Equipment and collection method are selected to meet task requirements, and set up in consultation with

appropriate persons.

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|------|--|---|------|--|------|--|------|--|
| | 1.3. | Hazards are identified and risks controlled and reported according to organisational requirements. | | | | | | |
| 2. | Carry out basic data collection tasks. | <table border="0"> <tr> <td>2.1.</td> <td>Factors affecting equipment use and accuracy of data are identified and reported.</td> </tr> <tr> <td>2.2.</td> <td>Basic surveying data is collected using selected equipment and according to manufacturer specifications, standard operating procedures, and task requirements.</td> </tr> <tr> <td>2.3.</td> <td>Measurements are recorded, calculated, reduced and checked before leaving the site according to organisational requirements.</td> </tr> </table> | 2.1. | Factors affecting equipment use and accuracy of data are identified and reported. | 2.2. | Basic surveying data is collected using selected equipment and according to manufacturer specifications, standard operating procedures, and task requirements. | 2.3. | Measurements are recorded, calculated, reduced and checked before leaving the site according to organisational requirements. |
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| 2.2. | Basic surveying data is collected using selected equipment and according to manufacturer specifications, standard operating procedures, and task requirements. | | | | | | | |
| 2.3. | Measurements are recorded, calculated, reduced and checked before leaving the site according to organisational requirements. | | | | | | | |
| 3. | Finalise data collection tasks. | <table border="0"> <tr> <td>3.1.</td> <td>Documentation is completed and data stored according to organisational requirements.</td> </tr> <tr> <td>3.2.</td> <td>Equipment is checked, and faults and problems are reported.</td> </tr> <tr> <td>3.3.</td> <td>Equipment is packed up and stored according to manufacturer and organisational requirements.</td> </tr> </table> | 3.1. | Documentation is completed and data stored according to organisational requirements. | 3.2. | Equipment is checked, and faults and problems are reported. | 3.3. | Equipment is packed up and stored according to manufacturer and organisational requirements. |
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Foundation Skills

This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria.

Skill	Performance feature
Numeracy skills to:	perform mathematical reductions.
Oral communication skills to:	ask questions to clarify task requirements and equipment selection.
Reading skills to:	locate specific information in forms and standard operating procedures required for using equipment and recording collected data.

Writing skills to:

- record clear and accurate measurements, computations, and field checks.

Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

Appropriate persons must include at least one of the following:

- experienced colleague
- site personnel
- supervisor or line manager.

Unit Mapping Information

No equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPSIS3015 Collect basic surveying data

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Replaces superseded non-equivalent CPPSIS3015A Collect spatial data.

Performance Evidence

A person demonstrating competency in this unit must satisfy the requirements of the elements, performance criteria, foundation skills and range of conditions of this unit. The person must also accurately record basic surveying data for two field projects, including data relating to the position of geographic features and their attributes, including angles, distances and height.

During the above projects, the person must collect the basic surveying data using two of the following pieces of equipment:

- automatic, digital or laser level
- electromagnetic recording equipment
- global positioning system (GPS) for:
 - determining point position
 - navigating and recording a traverse
 - collecting designated attributes for designated features
- ground penetrating radar
- total station.

In addition, while collecting basic surveying data, the person must use two of the following:

- digital or hard copy maps and images
- distance measuring
- measuring bearings or angles
- measuring vertical angles or slopes.

During the above projects, the person must also:

- communicate clearly with others to clarify work tasks and equipment selection
- comply with organisational, legislative and manufacturer requirements to work safely and use personal protective equipment (PPE)
- comply with relevant safe work method statements (SWMS)
- follow manufacturer specifications and standard operating procedures to correctly set up, operate, pack up, and store tools and equipment

- use organisational and industry procedures and proformas to accurately collect and record measurements and data.

Knowledge Evidence

A person demonstrating competency in this unit must demonstrate knowledge of:

- accepted organisational standards for recording surveying metadata
- attributes associated with a dataset
- organisational and industry policies and procedures relating to collecting, recording and storing surveying data
- organisational and industry procedures relating to work tasks specified in the performance evidence, including equipment use
- spatial data collection procedures for equipment used, as specified in the performance evidence
- work health and safety procedures relating to data collection activities.

Assessment Conditions

The following must be present and available to learners during assessment activities:

- equipment:
 - as specified in the performance evidence
- specifications:
 - standard operating procedures and documentation relating to data collection tasks
- relationships with team members and supervisor:
 - working under supervision.

Timeframe:

- as specified by task and organisational requirements.

Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

Links

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