



Australian Government

CPPSIS5047 Conduct GNSS surveys

Release: 1

CPPSIS5047 Conduct GNSS surveys

Modification History

Release 1.

Replaces superseded equivalent CPPSIS5047A Conduct an advanced GNSS data collection and set out survey.

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

Application

This unit of competency specifies the outcomes required to conduct global navigation satellite system (GNSS) surveys for data collection and engineering set-outs, using GNSS equipment and suitable software to communicate with GNSS receivers. The unit covers project managing data collection activities, including planning collection methodologies and allocating work tasks in a team environment. The unit requires the ability to validate the accuracy of data and identify discrepancies between specifications and actual activities.

The unit supports those who work under limited supervision in a surveying team.

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 GNSS survey. | 1.1. GNSS survey specifications and organisational requirements are identified and analysed, and key activities and timelines are scheduled according to available resources. |
| | 1.2. Equipment is prepared according to survey and organisational requirements. |
| | 1.3. Survey methodology is planned to meet survey |

- specifications and organisational requirements.
- 1.4. Existing survey control data is obtained and validated according to organisational requirements.
 - 1.5. Set-out data is collated, validated, manipulated and uploaded into GNSS receiver.
 - 1.6. Work responsibilities are allocated and communicated to *appropriate persons* according to survey and organisational requirements.
2. Carry out GNSS surveying tasks.
 - 2.1. GNSS equipment is operated according to survey specifications and organisational requirements.
 - 2.2. GNSS instruments are related to a reference system based on survey specifications.
 - 2.3. GNSS data is collected using planned methodology according to survey specifications and organisational requirements.
 - 2.4. GNSS measurements are validated and recorded on the reference system according to specifications.
3. Finalise GNSS survey.
 - 3.1. GNSS software is used to process data according to survey specifications and organisational requirements.
 - 3.2. Validation checks are completed according to specifications and organisational requirements.
 - 3.3. Discrepancies between specifications and actual data are identified and addressed according to survey specifications and organisational requirements.
 - 3.4. Survey is finalised and documentation completed according to organisational requirements.

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
Initiative and enterprise skills to:	<ul style="list-style-type: none">• analyse and decide GNSS data collection methods.
Planning and organising skills to:	<ul style="list-style-type: none">• plan and prioritise work to meet survey timeframes and resource constraints.
Numeracy skills to:	<ul style="list-style-type: none">• analyse metadata and positional data, and set-out positional accuracy• solve problems relating to height, dimension, direction and position in actual operational activity and virtual representation.
Oral communication skills to:	<ul style="list-style-type: none">• ask questions to clarify colleagues' understanding of delegated tasks.
Reading skills to:	<ul style="list-style-type: none">• analyse graphical and technical information in maps, engineering drawings, field records and survey plots.
Writing skills to:	<ul style="list-style-type: none">• record technical information in organisational documentation.
Technology skills to:	<ul style="list-style-type: none">• access, manipulate, retrieve and archive data• calibrate and validate GNSS equipment.
Problem-solving skills to:	<ul style="list-style-type: none">• select appropriate validation methods to verify accuracy of data.

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 • client

- must include at least one of the following:
- colleague
 - end user
 - manager
 - registered or qualified surveyor.

Unit Mapping Information

CPPSIS5047A Conduct an advanced GNSS data collection and set out survey

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>