

**Draft 0.1**

This is a draft update to CPPSIS : <https://training.gov.au/Training/Details/CPPSIS4025>.

Expanded acronym 'GNSS' in title to read: 'global navigation satellite system'.

Code changed to CPPSUR4025 Collect spatial data using GNSS.

Changed PCs to active voice.

Changed 'person' to 'candidate' in PE.

Range of Conditions added to Knowledge Evidence.

I've added mapping info.

TAG will need to reassess this as unit is redeveloped.

## Unit of Competency

### CPPSUR4025 Collect spatial data using global navigation satellite system (GNSS)

#### Modification history

Release	Comments
1	<del>Replaces superseded equivalent CPPSIS4025A Collect basic GNSS data. This version first released with CPP Property Services Training Package Version 3.</del>
	Replaces superseded equivalent CPPSIS4025 Collect spatial data using GNSS

#### Application

This unit specifies the skills and knowledge required to collect spatial data using global navigation satellite system (GNSS) equipment for surveying purposes, using both single point and differential techniques. The unit covers planning work tasks and setting up and operating GNSS equipment to achieve the required accuracy. The unit includes validating data to identify errors.

The unit supports those who work in support positions collecting field surveying data.

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

#### Prerequisite Unit

None

#### Unit Sector

Surveying and spatial information services

#### Elements and Performance Criteria

1. Prepare for spatial data collection.	1.1 Review task requirements and plan for spatial data collection in consultation with appropriate persons. 1.2 Select and check GNSS equipment according to task requirements.
2. Use GNSS equipment to collect data.	2.1 Check site conditions to identify factors that could obstruct or interfere with GNSS operation and impact on accuracy of data. 2.2 Determine conditions for obtaining optimum GNSS positions and apply basic methods to improve accuracy of GNSS point positioning. 2.3 Set up and operate GNSS equipment according to organisational requirements. 2.4 Collect, validate and record point positional data according to task specifications and organisational requirements. 2.5 Collect checked data according to organisational requirements.
3. Finalise spatial data collection	3.1 Download and verify data, and additional data gathered where required according to organisational requirements. 3.2 Complete data is processing, and reporting and documentation according to organisational requirements.

#### Foundation Skills

Candidates require:

- numeracy skills to:
  - perform surveying calculations relating to height, distances, angles and coordinates
  - set required datum and map projection and other parameters in equipment

- oral communication skills to:
  - ask questions to clarify task requirements
- reading skills to:
  - interpret equipment software menus and configurations
  - interpret three-dimensional (3-D) information
- writing skills to:
  - compile a short report of data collection task
  - record data legibly by hand
- technology skills to:
  - use GNSS software to communicate with GNSS receivers
- Problem-solving skills to:
- recognise and address possible anomalies in collected data.
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### Unit Mapping Information

Supersedes and is equivalent to CPPSIS4025 Collect spatial data using GNSS

### Links

Companion Volume Implementation Guide:

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

## Assessment Requirements for CPPSUR4025 Collect spatial data using global navigation satellite system (GNSS)

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### Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by collect spatial data using global navigation satellite systems (GNSS) for two different tasks in consultation with colleagues.

While collecting the above spatial data, the candidate must:

- collect point positional data and attributes to surveying accuracies for the task, both by single point positioning and differential techniques for designated datum and map projection
- communicate clearly with others to clarify data collection tasks and report task information
- comply with organisational and legislative requirements for identifying hazards and working safely
- operate the equipment specified in the assessment conditions, and comply with industry and organisational methods for data collection
- plan work tasks to take into account factors that affect accuracy of data collection using GNSS
- spatially view collected positional data, and non-spatially view collected attributes
- verify accuracy of a sample of collected points by recollecting points or other suitable method.

### Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- difference in heights and height datums between GNSS heights and heights on Australian Height Datum
- factors that affect accuracy of data collection by GNSS
- methods for checking accuracy of data collected
- purpose of and methods for setting designated datum and map projection
- typical accuracies obtainable with different GNSS techniques
- spatial data:
  - features and their attributes
  - horizontal position in latitude and longitude, easting and northing
  - vertical height
- appropriate persons:
  - experienced colleague
  - qualified surveyor
  - supervisor or line manager.

## Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- equipment:
  - GNSS equipment and any associated software
- specifications:
  - job specifications and plans
  - organisational policies and procedures relating to work health and safety
- relationships with team members and supervisor:
  - working in a team.

## Links

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