

Draft 0.2

This is a draft update to CPPSIS6032 Conduct advanced GNSS control surveys:

<https://training.gov.au/Training/Details/CPPSIS6032>.

Code changed to CPPSSI6032.

Expanded acronym GNSS in unit title.

Changed PCs to active voice.

PCs 1.2 and 1.8 removed

References to project management removed

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

CPPSI6032 Conduct GNSS control surveys

Modification history

| Release | Comments |
|---------|--|
| 1 | Replaces superseded equivalent CPPSI6032A Conduct an advanced GNSS control survey. This version first released with CPP Property Services Training Package Version 3. |
| | Replaces superseded equivalent CPPSI6032 Conduct advanced GNSS control surveys |

Application

This unit specifies the skills and knowledge required to conduct advanced Global Navigation Satellite System (GNSS) control surveys using GNSS equipment and suitable software to communicate with GNSS receivers. The unit includes programming and operation of GNSS equipment, relating surveying data to a reference system, and identifying and resolving discrepancies with the reference system.

This unit is suitable for surveyors operating at this level who will use broad theoretical and technical knowledge to analyse information as well as interpret and transmit solutions to unpredictable and sometimes complex surveying/spatial information problems. The unit supports those who work in a technical management role in a surveying team.

All work must be carried out to comply with workplace procedures, in accordance with relevant State/Territory regulations that govern surveying work as well as work health and safety, regulations and legislation that apply to the workplace.

Cadastral surveying must be undertaken under the supervision of a registered surveyor. Users must check with the relevant regulatory state/territory authority before delivery.

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 advanced GNSS control survey. | <ul style="list-style-type: none">1.1 Analyse survey specifications and plan key activities required.1.2 Identify potential situations impacting on effectiveness of GNSS technologies and plan contingencies.1.3 Set up and check GNSS equipment according to survey and enterprise requirements.1.4 Apply projection and datum parameters when using GNSS equipment and software.1.5 Obtain, validate and record existing survey control data and determine need for additional controls based on identified non-conformities. |
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| | 1.6 Collate, validate and manipulate data into the GNSS receiver. |
| 2. Carry out GNSS control surveying tasks. | 2.1 Work safely, using personal protective equipment (PPE) when conducting field work. 2.1 Program and operate GNSS equipment to analyse and manipulate data according to survey and enterprise requirements. 2.2 Relate GNSS survey to a reference system according to survey specifications. 2.3 Identify and resolve problems relating to discrepancies in the reference system or manage contingencies. 2.4 Collect GNSS data using planned methodologies according to survey requirements. 2.5 Analyse existing control networks and establish horizontal and vertical control positions according to project specifications. 2.6 Identify non-conformances in control networks and the need for additional controls. 2.7 Validate and record GNSS measurements on the reference system according to specifications. |
| 3. Finalise advanced GNSS control survey. | 3.1 Use GNSS software to process data according to survey and enterprise requirements. 3.2 Complete validation checks according to project specifications, industry-accepted standards and enterprise requirements. 3.3 Identify and address discrepancies between survey specifications and actual data according to survey and enterprise requirements. 3.4 Finalise and complete survey and documentation according to enterprise requirements. |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPPSIS6032 Conduct advanced GNSS control surveys

Links

The Companion Volume Implementation Guide for the CPP Property Services Training Package is available at <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPSSI6032 Conduct advanced GNSS control surveys

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Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by planning and conducting an advanced Global Navigation Satellite System (GNSS) control survey for two different projects using the following pieces of equipment:

- geodetic GNSS receiver
- associated equipment capable of differential and real time modes of operations.

Knowledge Evidence

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

- reference and coordinate systems for surveying data, including Australian Height Datum and Map Grid of Australia
- graphical and technical information in aerial photographs, maps, drawings, field records and survey plots
- technical terminology in specifications and contracts
- types of GNSS data collection techniques, accuracies and applications
- projection and datum parameters required for GNSS equipment and processing software
- GNSS availability, structures, capabilities and limitations
- GNSS control surveying techniques
- methods for accessing, manipulating, retrieving and archiving GNSS data
- accuracy and precision requirements for GNSS control networks
- GNSS accuracy enhancement techniques.

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:

- GNSS equipment and relevant software
- PPE
- survey specifications, plans, maps and photographs.

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