

Title	Navigate in a plantation forest		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: demonstrate knowledge of the types of maps used in forest operations; use a low definition operation map to identify forest block features; demonstrate knowledge of the tools used to navigate in a forest; use an operation map, compass and hip chain to locate plots in a forest plantation; and use an operation map and a GPS to locate plots in a forest plantation.
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Classification	Forestry > Forest Operations
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes the Health and Safety at Work (HSW) Act 2015; the Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018; and any subsequent amendments.
- 2 References
Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations, December 2012, available from <https://worksafe.govt.nz/>.
 New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <https://www.nzfoa.org.nz>.
- 3 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.
GIS refers to a Geographic Information System used to hold data and produce maps relevant to the forest owners' estate.
GPS refers to a Global Positioning System.
Worksite procedures refer to documented procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site safety procedures, equipment operating procedures, quality assurance procedures, housekeeping standards, procedures to comply with legislative and local body requirements.
- 4 Assessment information
 This unit standard must be assessed on-job.
 All activities and evidence must meet worksite procedures and accepted industry practice.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the types of maps used in forest operations.

Performance criteria

- 1.1 Types of maps used in forest operations and their purpose are described.
- Range may include but is not limited to – cadastral, road, topographic, soil, vegetation, stand, GIS operational, aerial photo; four map types and their purpose to be described.
- 1.2 Map scale is explained.
- 1.3 A map legend and its use are explained.
- 1.4 The coordinate system on a map is explained.
- Range New Zealand map grid, New Zealand transverse Mercator.

Outcome 2

Use a low definition operation map to identify forest block features.

Performance criteria

- 2.1 Features on an operation map are identified.
- Range ridges, gullies, streams, roads, landings, power lines, water points, historical sites, waahi tapu; six features to be identified.
- 2.2 Forest and stand boundaries on an operation map are identified.

Outcome 3

Demonstrate knowledge of the tools used to navigate in a forest.

Performance criteria

- 3.1 The advantages and disadvantages of navigational tools are described.
- Range topographic map, operation map, compass, hip chain, GPS.
- 3.2 Magnetic North is defined and compensation for magnetic north is demonstrated.
- 3.3 Using a compass to navigate on a bearing is demonstrated.

3.4 How a GPS works and sources of error in using a GPS are explained.

Outcome 4

Use an operation map, compass and hip chain to locate plots in a forest plantation.

Performance criteria

4.1 An operation map is orientated based on the features shown on the map.

4.2 The compass bearing needed to locate plots marked on a map is determined.

4.3 Plots are located in the field using an operation map, compass and hip chain.

Outcome 5

Use an operation map and a GPS to locate plots in a forest plantation.

Performance criteria

5.1 Plots are located in the field using an operation map and GPS.

5.2 A waypoint is captured on a GPS.

5.3 A location is transferred from a GPS to a map and vice versa.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 July 2009	31 December 2017
Review	2	10 December 2015	N/A
Review	3	25 June 2020	N/A

Consent and Moderation Requirements (CMR) reference	0173
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.