

Title	Manage a cable-assisted forestry machine operation		
Level	5	Credits	10

Purpose	<p>This unit standard is intended for managers of forestry operations where cable-assisted machines are to be deployed.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of the integration of cable-assisted systems into a forestry operation; establish and monitor operator training and equipment maintenance programmes in a cable-assisted machine forestry operation; develop an operational plan for a cable-assisted machine forestry operation; direct the placement of anchors in a cable-assisted machine forestry operation; and manage risks in a cable-assisted forestry operation.</p>
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Classification	Forestry > Forest Mechanised Harvesting
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Available grade	Achieved
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Prerequisite	Unit 30584, <i>Demonstrate knowledge of a cable-assisted forestry machine operation</i> , or demonstrate equivalent skills and knowledge.
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Guidance Information

- 1 It is recommended that candidates complete Unit 30583, *Establish an anchor for a cable-assisted forestry machine* prior to assessment of this unit standard.
- 2 Definitions

Accepted industry practice – approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.

Maps – contour maps, light detection and ranging maps, colour coded slope maps.

Manufacturer's instructions – training or documentation supplied by the manufacturer of the equipment including specifications from a certifying engineer.

Operational plan – any plan detailing how operational tasks will be carried out. Examples of operational plans include: harvesting plans, felling plans, extraction plans.

Workplace procedures – 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, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.

- 3 All activities and performance criteria must be carried out in accordance with accepted industry practice and workplace procedures.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the integration of cable-assisted systems into a forestry operation.

Performance criteria

- 1.1 Dynamic and passive cable-assisted machine systems are described, and the advantages and disadvantages of the systems are compared.
- Range evidence of two cable-assisted machine systems is required.
- 1.2 The capability and operating parameters of a system are identified in accordance with manufacturer's specifications, and their impact on operational planning decisions is explained.
- 1.3 The reasons why skilled operation of the machine on its own is not sufficient to integrate the machine efficiently into the overall operation are explained.
- 1.4 Factors to consider when integrating a cable-assisted system into a forestry operation to maximise productivity are explained.

Outcome 2

Establish and monitor operator training and equipment maintenance programmes in a cable-assisted machine forestry operation.

Performance criteria

- 2.1 A rope inspection and maintenance programme is established and monitored.
- 2.2 A machine inspection and maintenance programme is established and monitored.
- 2.3 The process for selecting, training, and assessing new operators is described.
- 2.4 The importance of considering the trainee operator's physical and mental health, competency, and duration of exposure during training is explained.
- 2.5 The reasons for maintaining an on-going relationship with the equipment manufacturer as a part of the equipment maintenance programme are explained.
- 2.6 The requirement for ensuring current drawbar certification as a part of the equipment maintenance programme is explained.

Outcome 3

Develop an operational plan for a cable-assisted machine forestry operation.

Performance criteria

- 3.1 Slopes in the block are determined from a colour coded slope map, on-site measurement, and by calculating rise over run from a contour map or light detection and ranging map.
- 3.2 Block characteristics are identified, assessed, and evaluated for their impact on operational decisions.
- Range ground conditions, terrain, surface cover, weather, access.
- 3.3 Equipment characteristics are assessed and evaluated for their impact on operational decisions.
- Range manufacturer's specifications and operating parameters, suitability for task and conditions, maximum slope and slope length.
- 3.4 Crew characteristics are assessed and evaluated for their impact on operational decisions.
- Range competence, state of mind.
- 3.5 An operational plan for a block is developed which identifies areas designated for cable-assisted, mechanical, and manual operations, and explains how cable-assisted operations will integrate with other operations.
- 3.6 The operational plan is discussed and agreed with the cable-assisted machine operator and with the forest owner or their representative.

Outcome 4

Direct the placement of anchors in a cable-assisted machine forestry operation.

Performance criteria

- 4.1 Factors affecting the positioning of the anchors are evaluated, and anchor positions located.
- Range access, ground stability, alignment to felling face, cable path, and cable departure point from anchor.
- 4.2 Crew are directed to place anchors, and the placement and testing of anchors is supervised and approved.

Outcome 5

Manage risks in a cable-assisted machine forestry operation.

Performance criteria

- 5.1 Risk assessment processes are followed to conduct and document safe working procedures for a cable-assisted operation.
- 5.2 A working alone procedure is established and monitored.
- 5.3 An operator fatigue management plan is established and monitored.
- 5.4 An emergency plan is established and communicated to all crew members.
- 5.5 A safe behavioural observation of a cable-assisted machine operator is carried out.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 October 2017	N/A
Review	2	25 June 2020	N/A
Rollover	3	26 April 2024	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 Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.