

Title	Demonstrate advanced (long-line) sling-load helicopter operations using vertical reference procedures		
Level	5	Credits	8

Purpose	People credited with this unit standard are able to, for sling-load operations: explain CAA Rules Part 133; and demonstrate planning; preparation and rigging of sling load; pre-flight briefing; helicopter operation; management of normal and abnormal situations; post-flight activities.
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Classification	Aviation > Aircraft Operation
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Available grade	Achieved
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Guidance Information

- 1 The flying covered by this unit standard must be demonstrated in accordance with the Civil Aviation Rules Parts 91 and 133 and other relevant rules, published by the Civil Aviation Authority of New Zealand (CAA), PO Box 3555, Wellington 6140, available at <http://www.caa.govt.nz/rules/rules.htm>, and their subsequent amendments.
- 2 This unit standard is aligned with the relevant parts of the prescribed syllabi of the CAA for a commercial pilot licence (helicopter).
- 3 Definitions, abbreviations, and acronyms used in this unit standard are to be found in:
 - a *Civil Aviation Rules Part 1* on the CAA website at <https://www.caa.govt.nz>, and
 - b *Aeronautical Information Publication (AIP)* published by Aeronautical Information Management (AIM), PO Box 294, Wellington 6140 or on the AIM website at <http://www.aip.net.nz>.
- 4 Evidence presented for assessment against this unit standard must be in accordance with industry texts and standards.
- 5 All references to the CAA refer specifically to the Civil Aviation Authority of New Zealand.
- 6 Industry standards and recommended practices are those set in place by the CAA.
- 7 Industry texts may include but are not limited to – aircraft flight manuals, CAA Rules, CAA Advisory Circulars, CAA Flight Test Standards Guides, operator exposition.
- 8 For the purpose of this unit standard the trainee will be given a specified load to transport to a specified location to be placed in a specified position, using a long-line a minimum of 100 feet (30.5m) long.

- 9 For the purpose of this unit standard *emergency situations* may be simulated.
- 10 Definition
Sling-load refers to a load carried by helicopter outside its fuselage. These are normally carried by slings, which are suspended below the helicopter.
- 11 Industry requirements are that the candidate must meet the eligibility requirements of the Civil Aviation Act 1990 and the Civil Aviation Rules Part 61 for a commercial pilot licence (helicopter).

Outcomes and performance criteria

Outcome 1

Explain CAA Rules Part 133 for sling-load operations.

Performance criteria

- 1.1 CAA Rules Part 133 is explained.

Outcome 2

Demonstrate planning for sling-load operations.

Performance criteria

- 2.1 External load procedure, equipment and personnel required for the task are determined.
- 2.2 Helicopter performance data is interpreted and calculated.
- 2.3 Flight routes are planned.
Range outward, during task, return.

Outcome 3

Demonstrate preparation and rigging of sling load for sling operations.

Performance criteria

- 3.1 Job requirements are identified.
- 3.2 Load is secured.

Outcome 4

Demonstrate pre-flight briefing for sling-load operations.

Performance criteria

- 4.1 The requirements of the load-carrying task are explained to support crew and their understanding confirmed.
- 4.2 Communication procedures are explained to support crew.
- 4.3 Hook-up person is identified, and hook-up procedures are specified.
- 4.4 In-flight procedures are explained to support crew.
- Range departure, transit, approach, termination, load release.
- 4.5 Emergency procedures are explained to support crew and their understanding confirmed.
- 4.6 Pilot vertical reference (long line) procedure is explained.

Outcome 5

Demonstrate helicopter operation during sling-load operations.

Range includes but is not limited to – vertical reference procedures.

Performance criteria

- 5.1 Stable hover over the load during hook-up/delivery is demonstrated.
- Range includes but is not limited to – calculation of density altitude.
- 5.2 External load is lifted and transported to the specified location and placed in the specified position.
- 5.3 Load is monitored during flight, and appropriate action is taken to ensure load security and stability.
- 5.4 Excessive load swing during flight is avoided.

Outcome 6

Demonstrate management of normal and abnormal situations during sling-load operations.

Performance criteria

- 6.1 Control of the helicopter is maintained.
- 6.2 Abnormal or emergency situations are identified and managed.
- Range may include but is not limited to – direction change, speed change, wind effect, jettisoning load.

Outcome 7

Demonstrate post-flight activities for sling-load operations.

Performance criteria

- 7.1 Operating procedures and outcomes of the load lifting flight are reviewed and analysed.
- 7.2 Inspection, servicing, and stowage of equipment are completed.

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	15 March 2012	31 December 2018
Review	2	20 October 2016	31 December 2027
Review	3	28 September 2023	N/A

Consent and Moderation Requirements (CMR) reference	0028
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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 Ringa Hora Services Workforce Development Council qualifications@ringahora.nz if you wish to suggest changes to the content of this unit standard.