

<b>Title</b>	<b>Operate a helicopter with a fire bucket</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	People credited with this unit standard are able, for helicopter fire bucket operations, to explain CAA Rules Part 133; and demonstrate flight planning; safe helicopter fire bucket filling; safe helicopter flight; safe helicopter management in normal and abnormal situations.
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<b>Classification</b>	Aviation > Aircraft Operation
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<b>Available grade</b>	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 intended to provide pilots with basic aircraft operational skills when flying with a fire bucket. All flights covered by this unit standard will be carried out under the supervision of a qualified flight instructor. The pilot will not be competent for flying on actual firefighting operations until meeting the further requirements for training and experience as defined in the AIRCARE™ *Code of Practice for Aircraft Operations - Fire Fighting*, AIRCARE™ Management Committee and National Rural Fire Authority. Until meeting the requirements to be a “lead” pilot, pilots may work on firefighting operations under direct supervision of an “unrestricted” or a “lead” pilot.
- 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 target location for delivery of the load, requiring filling a fire bucket from a specified source.
- 9 For outcomes 3 – 5, safety measures may include but are not limited to – lookout, awareness of hazards, positional awareness, vertical reference.
- 10 For the purpose of this unit standard emergency situations may be simulated.
- 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).

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## Outcomes and performance criteria

### Outcome 1

Explain CAA Rules Part 133 for helicopter fire bucket operations.

#### Performance criteria

- 1.1 CAA Rules Part 133 is explained.

### Outcome 2

Demonstrate flight planning for helicopter fire bucket operations.

#### Performance criteria

- 2.1 Essential performance and limitations data are derived and calculated.
- 2.2 The operability of the fire bucket is determined, and any defects fixed.  
  
Range includes but is not limited – valves.

### Outcome 3

Demonstrate safe helicopter fire bucket filling for helicopter fire bucket operations.

#### Performance criteria

- 3.1 The fire bucket is safely filled to appropriate level.  
  
Range factors determining appropriate filling level include but are not limited to – helicopter power, density altitude, wind velocity.

**Outcome 4**

Demonstrate safe helicopter flight for fire bucket operations.

**Performance criteria**

- 4.1 Helicopter is operated and manoeuvred safely in accordance with the situation of the scenario.
- 4.2 Approach route to filling site is selected and followed.
- 4.3 Departure route from filling site is selected and followed.
- 4.4 Load is released within the target area.

**Outcome 5**

Demonstrate safe helicopter management in normal and abnormal situations for fire bucket operations.

**Performance criteria**

- 5.1 Control of the helicopter is maintained.
- 5.2 Abnormal or emergency situations are identified and safely managed.

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<b>Planned review date</b>	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	18 October 2012	31 December 2018
Review	2	20 October 2016	31 December 2027
Review	3	28 September 2023	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	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](mailto:qualifications@ringahora.nz) if you wish to suggest changes to the content of this unit standard.