

Title	Demonstrate type rating competency for single engine helicopters		
Level	5	Credits	5

Purpose	People credited with this unit standard are able, for a type rating for a single engine helicopter, to demonstrate: technical knowledge; preparation for flight; take-off procedures; flying skills; approach and landing; and emergency procedures.
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Classification	Aviation > Aircraft Operation
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Available grade	Achieved
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Guidance Information

- 1 The type competency demonstration flight covered by this unit standard must be demonstrated in accordance with the Civil Aviation Rules Part 61 and 91, and other relevant rules, published by the Civil Aviation Authority of New Zealand (CAA), PO Box 3555, Wellington 6140, and their subsequent amendments. The unit standard will be granted only in respect of a type rating for a helicopter other than that used for the initial flight test.
- 2 This unit standard is aligned with the relevant parts of the prescribed syllabi of the CAA. Credit will be awarded on meeting the requirements of the CAA-approved assessment or examination.
- 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 – helicopter flight manuals, CAA Rules, CAA Advisory Circulars, CAA Flight Test Standards Guides, operator exposition, New Zealand Defence Force (NZDF) Policy.
- 8 Industry requirements are that the candidate must meet the eligibility requirements of the Civil Aviation Act 2023 and the Civil Aviation Rules Part 61 for a type rating.

- 9 In accordance with the provisions of Civil Aviation Rule Part 61 for Pilot Licences and Ratings and the associated Advisory Circulars, the CAA accepts specific NZDF flight crew qualifications and associated flight experience towards a number of the prescribed eligibility requirements for the issue of a New Zealand pilot licence and associated ratings.

Outcomes and performance criteria

Outcome 1

Demonstrate technical knowledge of a single engine helicopter for a type rating.

Performance criteria

- 1.1 Technical knowledge for operating a single engine helicopter is explained.

Range includes but is not limited to – primary flight controls and trim, carburettor heat and/or alternate air, mixture, fuel, oil, hydraulic systems, pneumatic systems, electrical system and associated instruments, landing gear/skids, rotor wheel brakes, avionics, auto-pilot, pitot-static system, vacuum/pressure system, heating and environmental system, de-icing and anti-icing systems, fire extinguisher systems, engines, rotor systems, airframe.

Outcome 2

Demonstrate preparation of a single engine helicopter for flight for a type rating.

Performance criteria

- 2.1 Essential performance and limitations data are derived and calculated.
- 2.2 The calculations for weight and balance for a practical load are completed.
- 2.3 The helicopter is loaded.
- 2.4 Helicopter documents validity is verified.
- 2.5 Pre-flight inspection is carried out.

Range includes but is not limited to – airworthiness of helicopter, fuel checks, weight and balance, oral briefing of passengers.

- 2.6 Engine start, warm-up, run-up procedures, and systems checks are demonstrated.

Range includes but is not limited to – use of external power source, various atmospheric conditions, effects of incorrect procedures.

Outcome 3

Demonstrate take-off procedures for a type rating for a single engine helicopter.

Performance criteria

- 3.1 Taxiing and hover manoeuvring are demonstrated.
- 3.2 Helicopter take-off is demonstrated.

Outcome 4

Demonstrate flying skills for a type rating for a single engine helicopter.

Performance criteria

- 4.1 Engine failure (cruise flight) is demonstrated.
- 4.2 Engine failure during take-off is demonstrated.
- 4.3 Engine failure after take-off is demonstrated.
- 4.4 Cruising flight is demonstrated.
- 4.5 Steep turn is demonstrated.
- 4.6 Settling with power (vortex ring state) is demonstrated.
- 4.7 Circuit procedures are demonstrated.

Outcome 5

Demonstrate approach and landing for a type rating for a single engine helicopter.

Performance criteria

- 5.1 Approach and landing are demonstrated.
 - Range includes but is not limited to – normal, steep, running (skids) or roll on (wheeled), confined area, sloping ground; noise abatement techniques.

Outcome 6

Demonstrate emergency procedures for a type rating for a single engine helicopter.

Performance criteria

- 6.1 Emergency procedures and abnormal conditions are demonstrated.

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	18 June 2010	31 December 2018
Revision	2	9 December 2010	31 December 2018
Review	3	20 October 2016	31 December 2027
Review	4	28 September 2023	31 December 2027
Review	5	29 May 2025	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.