

Title	Apply knowledge of pressurised aeroplanes to the certification of aeronautical maintenance		
Level	6	Credits	25

Purpose	<p>This knowledge-based unit standard is one of a series intended for people certifying the release to service of aircraft or aeronautical components following maintenance or repair.</p> <p>People credited with this unit standard are able to apply knowledge of pressurised aeroplanes: high-speed aerodynamics, design, construction, flight control systems, hydraulic systems, landing gear systems, pneumatic systems, air conditioning systems, pressurisation systems, oxygen systems, ice and rain protection systems, fuel systems, fire protection systems, and aircraft reliability and structural maintenance principles to the certification of aeronautical maintenance.</p>
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Classification	Aeronautical Engineering > Aeronautical Maintenance Certification
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Available grade	Achieved
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Guidance Information

- 1 The Civil Aviation Authority of New Zealand (CAA) Aircraft Maintenance Engineer Licence -Examination Subject 5, Aeroplanes 2 is the national standard, and is linked to international standards.
- 2 This unit standard is aligned with the Civil Aviation Authority of New Zealand Advisory Circular AC66-2.5, Examination Syllabus for, Subject 5, Aeroplanes 2 and will be evidenced by meeting these requirements. This is available on the CAA website at <http://www.caa.govt.nz/>.
- 3 *Applied knowledge* – will be in the context of aeronautical maintenance as defined by Civil Aviation Rules Part 1 as follows: ‘in relation to an aircraft or aircraft component, means all work and inspections performed to ensure the continued airworthiness of the aircraft or component, and all modifications’; will include making judgements regarding the scope, processes, and quality of maintenance for release to service certification; and will be in accordance with industry texts as defined by the candidate’s workplace or enterprise.

- 4 *Industry texts* include but are not limited to –
published aeronautical training manuals or text books;
enterprise exposition;
manufacturer publications;
government and local body legislation;
airworthiness or regulatory authority requirements.

Outcomes and performance criteria

Outcome 1

Apply knowledge of high-speed aerodynamics to the certification of aeronautical maintenance.

Performance criteria

- 1.1 Knowledge of high-speed flight is applied.
- 1.2 Knowledge of high-speed flight design features is applied.
- 1.3 Knowledge of aircraft control in high-speed flight is applied.

Outcome 2

Apply knowledge of pressurised aeroplane design and construction to the certification of aeronautical maintenance.

Performance criteria

- 2.1 Knowledge of pressurised aeroplane design principles is applied.
- 2.2 Knowledge of pressurised aeroplane construction principles is applied.
- 2.3 Knowledge of pressurised aeroplane structure maintenance is applied.
- 2.4 Knowledge of pressurised aeroplane structure inspection and certification is applied.

Outcome 3

Apply knowledge of pressurised aeroplane flight control systems to the certification of aeronautical maintenance.

Performance criteria

- 3.1 Knowledge of pressurised aeroplane flight control systems and components is applied.
- 3.2 Knowledge of pressurised aeroplane flight control system and component maintenance is applied.

- 3.3 Knowledge of pressurised aeroplane flight control system and component inspection and certification is applied.

Outcome 4

Apply knowledge of pressurised aeroplane hydraulic systems to the certification of aeronautical maintenance.

Performance criteria

- 4.1 Knowledge of pressurised aeroplane hydraulic systems and components is applied.
- 4.2 Knowledge of pressurised aeroplane hydraulic system and component maintenance is applied.
- 4.3 Knowledge of pressurised aeroplane hydraulic system and component inspection and certification is applied.

Outcome 5

Apply knowledge of pressurised aeroplane landing gear systems to the certification of aeronautical maintenance.

Performance criteria

- 5.1 Knowledge of pressurised aeroplane landing gear systems and components is applied.
- 5.2 Knowledge of pressurised aeroplane landing gear system and component maintenance is applied.
- 5.3 Knowledge of pressurised aeroplane landing gear system and component inspection and certification is applied.

Outcome 6

Apply knowledge of pressurised aeroplane pneumatic systems to the certification of aeronautical maintenance.

Performance criteria

- 6.1 Knowledge of pressurised aeroplane pneumatic systems and components is applied.
- 6.2 Knowledge of pressurised aeroplane pneumatic system and component maintenance is applied.
- 6.3 Knowledge of pressurised aeroplane pneumatic system and component inspection and certification is applied.

Outcome 7

Apply knowledge of pressurised aeroplane air conditioning and pressurisation systems to the certification of aeronautical maintenance.

Performance criteria

- 7.1 Knowledge of pressurised aeroplane air conditioning and pressurisation systems and components is applied.
- 7.2 Knowledge of pressurised aeroplane air conditioning and pressurisation system and component maintenance is applied.
- 7.3 Knowledge of pressurised aeroplane air conditioning and pressurisation system and component inspection and certification is applied.

Outcome 8

Apply knowledge of pressurised aeroplane oxygen systems to the certification of aeronautical maintenance.

Performance criteria

- 8.1 Knowledge of pressurised aeroplane oxygen systems is applied.
- 8.2 Knowledge of pressurised aeroplane oxygen system maintenance is applied.
- 8.3 Knowledge of pressurised aeroplane oxygen system inspection and certification is applied.

Outcome 9

Apply knowledge of pressurised aeroplane ice and rain protection systems to the certification of aeronautical maintenance.

Performance criteria

- 9.1 Knowledge of pressurised aeroplane ice and rain protection systems is applied.
- 9.2 Knowledge of pressurised aeroplane ice and rain protection system maintenance is applied.
- 9.3 Knowledge of pressurised aeroplane ice and rain protection system inspection and certification is applied.

Outcome 10

Apply knowledge of pressurised aeroplane fuel systems to the certification of aeronautical maintenance.

Performance criteria

- 10.1 Knowledge of pressurised aeroplane fuel systems is applied.
- 10.2 Knowledge of pressurised aeroplane fuel system maintenance is applied.
- 10.3 Knowledge of pressurised aeroplane fuel system inspection and certification is applied.

Outcome 11

Apply knowledge of pressurised aeroplane fire protection systems to the certification of aeronautical maintenance.

Performance criteria

- 11.1 Knowledge of pressurised aeroplane fire protection systems is applied.
- 11.2 Knowledge of pressurised aeroplane fire protection system maintenance is applied.
- 11.3 Knowledge of pressurised aeroplane fire protection system inspection and certification is applied.

Outcome 12

Apply knowledge of aircraft reliability and structural maintenance principles to the certification of aeronautical maintenance.

Performance criteria

- 12.1 Knowledge of aircraft failure and reliability principles is applied.
- 12.2 Knowledge of aircraft maintenance programmes and quality processes is applied.

Planned review date	31 December 2027
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 August 2004	31 December 2020
Review	2	9 December 2010	31 December 2020
Review	3	28 September 2017	31 December 2024
Review	4	27 October 2022	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.