

Title	Apply knowledge of avionics 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 certify the maintenance of aircraft avionics systems by applying knowledge of: measuring instrument systems, pitot-static systems, gyroscopic instrument systems, communications and navigation systems, circuit protection and control devices, wiring installations, electronic fundamentals, and avionic maintenance practices 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 – Subject 11, Avionics 1 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 AC66-2.11, Examination Syllabus for Subject 11, Avionics 1 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 aircraft measuring instrument systems to the certification of aeronautical maintenance.

Range pressure, temperature, rotational speed, fluid quantity, position, fluid flow.

Performance criteria

- 1.1 Knowledge of aircraft measuring instrument systems and components is applied.
- 1.2 Knowledge of aircraft measuring instrument system and component maintenance is applied.
- 1.3 Knowledge of aircraft measuring instrument system and component inspection and certification is applied.

Outcome 2

Apply knowledge of aircraft pitot-static systems to the certification of aeronautical maintenance.

Performance criteria

- 2.1 Knowledge of aircraft pitot-static systems and components is applied.
- 2.2 Knowledge of aircraft pitot-static system and component maintenance is applied.
- 2.3 Knowledge of aircraft pitot-static system and component inspection and certification is applied.

Outcome 3

Apply knowledge of aircraft gyroscopic instrument systems to the certification of aeronautical maintenance.

Range electrically driven, vacuum driven.

Performance criteria

- 3.1 Knowledge of aircraft gyroscopic instrument systems and components is applied.

- 3.2 Knowledge of aircraft gyroscopic instrument system and component maintenance is applied.
- 3.3 Knowledge of aircraft gyroscopic instrument system and component inspection and certification is applied.

Outcome 4

Apply knowledge of aircraft communication and navigation systems to the certification of aeronautical maintenance.

Performance criteria

- 4.1 Knowledge of aircraft communication and navigation systems and components is applied.
- 4.2 Knowledge of aircraft communication and navigation system and component maintenance is applied.
- 4.3 Knowledge of aircraft communication and navigation system and component inspection and certification is applied.

Outcome 5

Apply knowledge of aircraft circuit protection and control devices to the certification of aeronautical maintenance.

Performance criteria

- 5.1 Knowledge of aircraft circuit protection and control devices is applied.
- 5.2 Knowledge of aircraft circuit protection and control device maintenance is applied.
- 5.3 Knowledge of aircraft circuit protection and control device inspection and certification is applied.

Outcome 6

Apply knowledge of aircraft wiring installations to the certification of aeronautical maintenance.

Performance criteria

- 6.1 Knowledge of aircraft wiring installations is applied.
- 6.2 Knowledge of aircraft wiring installation maintenance is applied.
- 6.3 Knowledge of aircraft wiring installation inspection and certification is applied.

Outcome 7

Apply knowledge of electronic fundamentals to the certification of aeronautical maintenance.

Performance criteria

- 7.1 Knowledge of aircraft electronic fundamentals is applied.
- 7.2 Knowledge of aircraft electronic fundamentals relevant to system and component maintenance is applied.
- 7.3 Knowledge of aircraft electronic fundamentals relevant to system and component inspection and certification is applied.

Outcome 8

Apply knowledge of general avionic maintenance practices to the certification of aeronautical maintenance.

Range electro-static precautions, electrical load limits, equipment handling, equipment storage, equipment preservation, avionics test equipment use, electrical lighting systems.

Performance criteria

- 8.1 Knowledge of general avionic maintenance practices is applied.
- 8.2 Knowledge of general avionic maintenance practices relevant to system and component maintenance is applied.
- 8.3 Knowledge of general avionic maintenance practices relevant to system and component inspection and certification 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.