

Title	Apply knowledge of electrical fundamentals to the certification of aeronautical maintenance		
Level	6	Credits	20

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 electrical fundamentals to the certification of aeronautical maintenance.</p>
----------------	--

Classification	Aeronautical Engineering > Aeronautical Maintenance Certification
-----------------------	---

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 The Civil Aviation Authority of New Zealand (CAA) Aircraft Maintenance Engineer Licence – Examination Subject 1B, Aeronautical Science – Electrical Fundamentals 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 AC66-2.1B, Examination Syllabus for Subject 1B, Aeronautical Science – Electrical Fundamentals 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 electrical fundamentals to the certification of aeronautical maintenance.

Performance criteria

- 1.1 Knowledge of electrical theory is applied.
- 1.2 Knowledge of electricity generation is applied.
- 1.3 Knowledge of electrical resistance is applied.
- 1.4 Knowledge of direct current circuits is applied.
- 1.5 Knowledge of electrical capacitance is applied.
- 1.6 Knowledge of magnetism is applied.
- 1.7 Knowledge of electromagnetic induction is applied.
- 1.8 Knowledge of alternating current systems is applied
- 1.9 Knowledge of transformers is applied.

Replacement information	This unit standard and unit standard 26963 replaced unit standard 20894.
--------------------------------	--

Planned review date	31 December 2027
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	9 December 2010	31 December 2020
Review	2	28 September 2017	31 December 2024
Review	3	27 October 2022	N/A

Consent and Moderation Requirements (CMR) reference	0028
--	------

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.