

Title	Demonstrate type rating competency for an aeroplane not exceeding 5700 kg MCTOW		
Level	5	Credits	5

Purpose	People credited with this unit standard are able to demonstrate: technical knowledge for aeroplane type rating competency; pre-flight checks and procedures; aeroplane take-off procedures; and in-flight competence.
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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 rating for a type 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 All references to the CAA refer specifically to the Civil Aviation Authority of New Zealand.
- 5 Industry standards and recommended practices are those set in place by the CAA.
- 6 Industry texts may include but are not limited to – aircraft flight manuals, CAA Rules, CAA Advisory Circulars, CAA Flight Test Standards Guides, operator exposition.
- 7 This unit standard is assessed against a single-pilot aircraft.
- 8 Emergency procedures may be real or simulated.

- 9 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 type rating.

Outcomes and performance criteria

Outcome 1

Demonstrate technical knowledge for aeroplane type rating competency.

Performance criteria

- 1.1 The operation of systems installed on the aeroplane is described in accordance with the aircraft flight manual and industry standards.
- 1.2 Aircraft performance and limitations are stated in accordance with the aircraft flight manual and industry standards.
- 1.3 Aircraft weight and balance, and loading are calculated in accordance with the aircraft flight manual and industry standards.
- 1.4 The validity of aircraft documents and the airworthiness of the aircraft are verified in accordance with industry texts and standards.

Outcome 2

Demonstrate pre-flight checks and procedures.

Performance criteria

- 2.1 Pre-flight external and internal inspections are completed in accordance with the aircraft flight manual and industry standards.

Range inspections include but are not limited to – fuel quantity, proper grade of fuel, fuel contamination, oil level, location of critical items.
- 2.2 Engine start, warm-up, and run-up procedures are demonstrated in accordance with the aircraft flight manual and industry standards.
- 2.3 Taxiing, steering and brake checks are demonstrated in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – confirmation of proper functioning of flight instruments.

Outcome 3

Demonstrate aeroplane take-off procedures.

Performance criteria

- 3.1 Aircraft take-off is demonstrated in accordance with the aircraft flight manual and industry standards.
- Range includes but is not limited to – normal, cross wind, short field, soft surface, rough water, glassy water.
- 3.2 Engine failure during take-off is demonstrated according to industry texts and standards.

Outcome 4

Demonstrate in-flight competence.

Performance criteria

- 4.1 Intentional engine shutdown and air-start are demonstrated in accordance with the aircraft flight manual and industry standards.
- Range multi-engine aircraft only.
- 4.2 Engine failure techniques are demonstrated in accordance with the aircraft flight manual and industry standards.
- Range may include but is not limited to – immediately after decision speed (V_1).
- 4.3 Engine failure procedures (cruise flight) are demonstrated in accordance with the aircraft flight manual and industry standards.
- 4.4 Recovery from an approach to V_{MC} is demonstrated in accordance with the aircraft flight manual and industry procedures.
- Range multi-engine aircraft only.
- 4.5 Engine failure after take-off is demonstrated in accordance with the aircraft flight manual and industry standards.
- 4.6 Cruising flight is demonstrated in accordance with the aircraft flight manual and industry standards.
- 4.7 Steep turns are demonstrated in accordance with the aircraft flight manual and industry standards.
- 4.8 Stall recognition and recovery is demonstrated in accordance with the aircraft flight manual and industry standards.
- Range includes but is not limited to – clean, take-off, and landing configurations.

4.9 Circuit procedures are demonstrated in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – departure procedures, joining procedures, compliance with ATS instructions; overshoot procedure (one engine inoperative, for multi-engine aircraft only).

4.10 Approach and landing are demonstrated in accordance with the aircraft flight manual and industry procedures.

4.11 Emergency procedures are demonstrated in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – propeller over speed, vacuum system failure, cabin fire, electrical malfunctions, landing gear malfunctions, brake failure, flap failure, door opening in flight; evidence of three different situations is required.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

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

Consent and Moderation Requirements (CMR) reference

0169

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.