Title	**Demonstrate flying skills for a commercial pilot licence (aeroplane)**		
Level	**5**	**Credits**	**10**

Purpose	People credited with this unit standard are able, for a commercial pilot licence (aeroplane), to demonstrate: on the ground preparation; pre-flight and post-flight checks and procedures; Air Traffic Service procedures; pre take-off, take-off and after-landing procedures; in-flight competence; approach, landing and go-round procedures; and in-flight technical functions.

Classification	Aviation > Aircraft Operation

Available grade	Achieved

Guidance Information

1 The test 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. To undertake this assessment, the candidate must present a current Private Pilot Licence and appropriate evidence of current written examination credits in accordance with industry texts and standards.

2 This unit standard is aligned with the relevant parts of the prescribed syllabi of the CAA for a commercial pilot licence (aeroplane). 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 Aircraft, equipment, and facilities required for the flight test must be in accordance with the requirements of CAA Advisory Circular 61-5 Appendix IV.

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 – aircraft flight manuals, CAA Rules, CAA Advisory Circulars, CAA Flight Test Standards Guides, operator exposition.

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 a commercial pilot licence.

Outcomes and performance criteria

Outcome 1

Demonstrate on the ground preparation for a commercial pilot licence (aeroplane).

Performance criteria

1.1 Personal factors are demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – fitness to fly, grooming, deportment, punctuality, personal presentation.

1.2 Logbook is up-to-date, summarised and certified in accordance with industry texts and standards.

1.3 A current AIP Volume 4 and VNC are presented in accordance with industry texts and standards.

1.4 Licensing and currency requirements for a commercial pilot are described in accordance with industry texts and standards.

1.5 Aircraft documents are explained in accordance with industry texts and standards.

Range includes but is not limited to – Certificate of Airworthiness, aircraft technical log, aircraft flight manual, pilot's operating handbook, aircraft's limitations.

1.6 Weather data and NOTAMs are obtained and correctly interpreted in accordance with industry texts and standards.

1.7 AIP Volume 4 and VNC are explained and interpreted in accordance with industry texts and standards.

1.8 A go/no-go decision is made in accordance with industry texts and standards.

1.9 Performance calculations are completed and a sound decision in relation to aircraft performance capability and operating limitations is made in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – density altitude, runway slope.

1.10 The aircraft's capability for the required performance is determined in accordance with the flight manual and industry standards.

1.11 The Group Rating System is explained in accordance with industry texts and standards.

1.12 The effect of seasonal and atmospheric conditions on the aircraft's performance is explained in accordance with the flight manual and industry standards.

1.13 Fuel requirements are calculated in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – quantity of fuel on board (including reserves).

1.14 Fuel primer pump and auxiliary fuel pump are operated for starting as required in accordance with the aircraft flight manual and industry standards.

1.15 Correct fuel tank is selected for start, taxiing and take-off, and fuel consumption and tank selection are monitored in accordance with the aircraft flight manual and industry standards.

1.16 Aircraft loading is described in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – aircraft performance calculations, aircraft take-off weight, aircraft landing weight, fuel and oil, centre of gravity, distribution and securing of baggage.

Outcome 2

Demonstrate pre-flight and post-flight checks and procedures for a commercial pilot licence (aeroplane).

Performance criteria

2.1 Pre-flight checks are demonstrated in accordance with industry texts and standards.

Range interior inspection, external inspection, fuel and oil, securing loose articles, location and use of emergency equipment.

2.2 Passengers are supervised and briefed in accordance with industry texts and standards.

Range includes but is not limited to – location and operation of emergency equipment, use and operation of seat belts and/or shoulder harness, operation of all doors and hatches, rules regarding smoking, actions in the event of an emergency landing.

2.3 Engine start and warm-up procedures are demonstrated in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – action in the event of an engine fire during or after start.

2.4 Engine is shut down in accordance with industry texts and standards.

2.5 Post-flight documentation is completed in accordance with industry texts and standards.

2.6 Passengers are supervised in accordance with industry texts and standards.

Outcome 3

Demonstrate Air Traffic Service procedures for a commercial pilot licence (aeroplane).

Performance criteria

3.1 Air Traffic Service procedures are carried out in accordance with AIP and CAA Rules.

Outcome 4

Demonstrate pre take-off, take-off, and after-landing procedures for a commercial pilot licence (aeroplane).

Performance criteria

4.1 Taxiing check is performed in accordance with industry texts and standards.

4.2 Brake check is performed in accordance with industry texts and standards.

4.3 Aircraft is parked at the holding point in accordance with the aircraft flight manual and industry standards.

4.4 The engine is run-up and checked in accordance with the aircraft flight manual and industry standards.

4.5 The throttle is operated in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – abrupt temperature changes, mixture control, carburettor heat.

4.6 Pre take-off checks are completed in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – flight controls.

4.7 Pre take-off briefing is delivered in accordance with industry texts and standards.

Range includes but is not limited to – engine failure, abnormal operation, engine failure after take-off, departure procedures.

4.8 Take-off is completed in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – flap use, correct runway, normal, short field, crosswind (including maximum crosswind component).

4.9 The appropriate emergency procedures for engine failure after take-off are executed in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – control of aircraft, procedures, nominated site, execute procedure, go-round procedure.

4.10 After-landing checks are carried out in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – brake check before entering congested area.

4.11 Aircraft is parked in accordance with industry texts and standards.

Outcome 5

Demonstrate in-flight competence for a commercial pilot licence (aeroplane).

Performance criteria

5.1 Climb is demonstrated at the nominated speed in accordance with the aircraft flight manual and industry standards.

Range includes but is not limited to – temperatures, pressures, clearing flight path ahead.

5.2 Straight and level flight is demonstrated in accordance with industry texts and standards.

5.3 Full panel instrument flight is demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – straight and level, medium turns, climbing and descending;
recovery from stall onset includes – in level flight, in climbing turn, in spiral dive.

5.4 Limited panel flight is entered and maintained using basic instrumentation as sole reference in accordance with industry texts and standards.

Range includes but is not limited to – straight and level flight, compass turn, climbing and descending, climbing and descending turns, recovery from unusual attitude.

5.5 Turning manoeuvres are entered, maintained, and exited in accordance with industry texts and standards.

Range includes but is not limited to – straight and level flight, climbing turns, steep turns, maximum rate turns.

5.6 Aircraft is controlled during a slow flight at a minimum of 1.2 Vs in accordance with industry texts and standards.

5.7 Stall recognition, entry and recovery in various configurations are demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – HASELL and HELL, checks; basic configuration; power on; wingdrop; steep turn; fully developed; onset and recovery.

5.8 Procedures for forced landing are demonstrated in accordance with industry texts and standards.

Range without power, with power.

5.9 Descending manoeuvres are demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – glide, power-on, cruise, descending turns, engine temperatures and pressures, turning, clearing flight path ahead.

5.10 Steep gliding turns are demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – increasing power at bank angles in excess of 30°, situational awareness, orientation, selection of suitable reference point.

5.11 Flaps usage and/or sideslipping are demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – operation of flap, maintenance of airspeed range required for flap operation and use, increasing airspeed appropriate to the sideslip.

5.12 Low flying procedures and practices are demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – cruise, simulated poor visibility.

Outcome 6

Demonstrate approach, landing, and go-round procedures for a commercial pilot licence (aeroplane).

Performance criteria

6.1 Circuit is joined in accordance with industry texts and standards.

Range procedures may include but are not limited to – obtaining and complying with ATS clearance, unattended air fields, situational awareness.

6.2 Approach and landing are demonstrated in accordance with industry texts and standards.

Range includes but is not limited to – normal, flapless, crosswind, glide, short field.

6.3 Approach and go-round are demonstrated in accordance with industry texts and standards.

Outcome 7

Demonstrate in-flight technical functions for a commercial pilot licence (aeroplane).

Performance criteria

7.1 Radiotelephony tuning and procedures are demonstrated in accordance with industry texts and standards.

7.2 Lookout is maintained throughout the flight in accordance with industry texts and standards.

Range includes but is not limited to – avoidance and separation from other aircraft, remaining in VMC to comply with VFR, situational awareness.

7.3 Flight orientation is maintained throughout the flight in accordance with industry texts and standards.

Range includes but is not limited to – airspace boundaries, control zones, VFR lanes, reporting points.

7.4 Pilot judgement and decision-making is demonstrated in accordance with industry texts and standards.

Replacement information	This unit standard replaced unit standard 16437.

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
Review	2	20 October 2016	31 December 2027
Review	3	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.