Title	**Demonstrate knowledge of glider principles of flight and operation for commercial aircraft operations**		
Level	**5**	**Credits**	**5**

Purpose	People credited with this unit standard are able to demonstrate knowledge of the principles of flight and glider operation for commercial aircraft operations as defined in AC 61-5.

Classification	Aviation > Aircraft Operation

Available grade	Achieved

Guidance Information

1 This unit standard is aligned with the relevant parts of the prescribed syllabi of the Civil Aviation Authority of New Zealand (CAA) AC 61-5 for a commercial pilot licence. Credit will be awarded on meeting the requirements of the CAA-approved assessment or examination.

2 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.

3 All references to the CAA refer specifically to the Civil Aviation Authority of New Zealand.

4 Industry standards and recommended practices are those set in place by the CAA.

5 Industry texts may include but are not limited to – aircraft flight manuals, CAA Rules, CAA Advisory Circulars, CAA Flight Test Standards Guides, operator exposition.

6 For the purpose of this unit standard, *knowledge* refers to the knowledge, understanding, and application of the subject matter.

7 Industry requirements are that the candidate must meet the eligibility requirements of the Civil Aviation Act 1990 and the Civil Aviation Rule Part 61 for a commercial pilot licence.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of glider the principles of flight and glider operation for commercial aircraft operations as defined in AC 61-5.

Performance criteria

1.1 Mechanics of flight are defined and described in accordance with industry texts and standards.

Range includes but is not limited to – mass, inertia, momentum, speed, velocity, acceleration, Newton's laws of motion.

1.2 The atmosphere is described in accordance with industry texts and standards.

Range includes but is not limited to – air density, air pressure, temperature, density altitude.

1.3 Aerodynamic theory and its associated principles for aviation are described in accordance with industry texts and standards.

Range includes but is not limited to – Bernoulli's theorem, angle of attack, glide ratio, centre of gravity.

1.4 Launching procedures are described in accordance with industry texts and standards.

Range includes but is not limited to – winch, auto, aero-towing.

1.5 Soaring and its associated principles for aviation are described in accordance with industry texts and standards.

Range includes but is not limited to – thermal soaring, ridge soaring, wave soaring.

1.6 Landings and factors influencing the decision to land are described in accordance with industry texts and standards.

Range includes but is not limited to – location, size, surface, slope, wind direction.

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.