

Title	Demonstrate knowledge of flight planning for an airline transport pilot licence (aeroplane)		
Level	6	Credits	15

Purpose	People credited with this unit standard are able, for an airline transport pilot licence (aeroplane) in accordance with Subject No 40, to demonstrate knowledge of: flight planning concepts; manual flight planning; and computerised flight planning.
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Classification	Aviation > Aircraft Operation
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Available grade	Achieved
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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) for Subject No 40, for an airline transport pilot licence (aeroplane). Credit will be awarded upon meeting the requirements of the CAA-approved assessment or examination.
- 2 An airline transport pilot licence permits the holder to conduct aircraft operations as pilot-in-command in an aircraft requiring a co-pilot.
- 3 This unit standard is based on flight planning for an oceanic IFR flight for a multi-engine turbine air transport type aeroplane.
- 4 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>.
- 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 For the purpose of this unit standard, *knowledge* refers to knowledge, understanding, and application of the subject matter.

- 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 an airline transport pilot licence (aeroplane).

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of flight planning concepts in accordance with Subject No 40.

Performance criteria

- 1.1 Flight planning terms are defined in accordance with industry texts and standards.
- 1.2 Aerodynamics and turbine engine characteristics are explained and described in accordance with industry texts and standards.
- Range variation of aircraft performance – height, weight; effect of height and weight on – power, speed, fuel consumption.
- 1.3 Aircraft performance is described and interpreted in accordance with industry texts and standards.
- Range includes but is not limited to – interpretation of graphs of power, speed, height, temperature.
- 1.4 Cruise management is explained in accordance with industry texts and standards.
- 1.5 ETOPS is explained in accordance with industry texts and standards.
- Range includes – ETOPS flight plan.

Outcome 2

Demonstrate knowledge of manual flight planning in accordance with Subject No 40.

Performance criteria

- 2.1 Determinations relating to climb are demonstrated in accordance with industry texts and standards.
- 2.2 Determinations relating to cruise are demonstrated in accordance with industry texts and standards.
- 2.3 Determinations relating to descent are demonstrated in accordance with industry texts and standards.
- 2.4 Determinations relating to fuel consumption are demonstrated in accordance with industry texts and standards.

- 2.5 Determinations relating to payload are demonstrated in accordance with industry texts and standards.
- 2.6 Determinations relating to Equi-Time Points (ETP) are demonstrated in accordance with industry texts and standards.
- 2.7 Determinations relating to Return Points are demonstrated in accordance with industry texts and standards.
- 2.8 Determinations relating to Diversion Decision Point are demonstrated in accordance with industry texts and standards.

Outcome 3

Demonstrate knowledge of computerised flight planning in accordance with Subject No 40.

Performance criteria

- 3.1 Flight data extraction is demonstrated in accordance with industry texts and standards.
- Range may include but is not limited to – type of cruise profile, preliminary cruise level, time/distance/fuel to preliminary cruise level.
- 3.2 Revision calculations are demonstrated in accordance with industry texts and standards.
- Range may include but is not limited to – revised enroute ETP.

Replacement information	This unit standard replaced unit standard 15363.
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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	21 January 2011	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
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.