

Title	Demonstrate knowledge of navigation and flight planning for an instrument rating		
Level	5	Credits	8

Purpose	People credited with this unit standard are able, for an instrument rating in accordance with Subject No 54, to demonstrate knowledge of: the fundamentals of air navigation; aeronautical charts; flight planning for instrument flight; IFR navigation procedures; the use of radio aids; and GNSS.
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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 CAA for Subject No 54, for an instrument rating. Credit will be awarded upon 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 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 Rules Part 61 for a pilot licence.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the fundamentals of air navigation in accordance with Subject No 54.

Performance criteria

- 1.1 Altimetry is defined and explained in accordance with industry texts and standards.

Outcome 2

Demonstrate knowledge of aeronautical charts in accordance with Subject No 54.

Performance criteria

- 2.1 Properties and principles of aeronautical charts are identified, described, and explained in accordance with industry texts and standards.
- 2.2 Chart reading is demonstrated and described in accordance with industry texts and standards.

Outcome 3

Demonstrate knowledge of flight planning for instrument flight in accordance with Subject No 54.

Performance criteria

- 3.1 Route selection is demonstrated in accordance with industry texts and standards.
- 3.2 An IFR flight plan is prepared in accordance with industry texts and standards.
- 3.3 Fuel planning is demonstrated in accordance with industry texts and standards.

Outcome 4

Demonstrate knowledge of IFR navigation procedures in accordance with Subject No 54.

Performance criteria

- 4.1 Properties and principles of IFR navigation procedures are defined and demonstrated in accordance with industry texts and standards.
- 4.2 Chart plotting is demonstrated in accordance with industry texts and standards.
- 4.3 Chart reading is demonstrated in accordance with industry texts and standards.

- 4.4 Enroute diversion calculations are demonstrated in accordance with industry texts and standards.

Outcome 5

Demonstrate knowledge of the use of radio aids in accordance with Subject No 54.

Performance criteria

- 5.1 Automatic direction finder (ADF) is described and explained in accordance with industry texts and standards.
- 5.2 VOR is described and explained in accordance with industry texts and standards.
- 5.3 Distance measuring equipment (DME) is described and explained in accordance with industry texts and standards.

Outcome 6

Demonstrate knowledge of GNSS in accordance with Subject No 54.

Performance criteria

- 6.1 GNSS is explained in accordance with industry texts and standards.

Replacement information	This unit standard replaced unit standard 15359.
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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>.