

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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Entry information	
Critical health and safety prerequisites	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.

Explanatory notes

- 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.

Outcomes and evidence requirements

Outcome 1

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

Evidence requirements

- 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.

Evidence requirements

- 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.

Evidence requirements

- 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.

Evidence requirements

- 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.

Evidence requirements

- 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.

Evidence requirements

- 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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Planned review date	31 December 2021
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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	N/A

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>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact ServiceIQ qualifications@serviceiq.org.nz if you wish to suggest changes to the content of this unit standard.