

<b>Title</b>	<b>Demonstrate flying skills for an instrument rating in multi-engine aircraft</b>		
<b>Level</b>	<b>6</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able, for an instrument rating (IR) in a multi-engine aircraft, to demonstrate: on-the-ground preparation; in-flight competence; technical skills; and threat and error management.
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<b>Classification</b>	Aviation > Aircraft Operation
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<b>Available grade</b>	Achieved
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### Guidance Information

- The 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 Pilot Licence and logbook, appropriate evidence of current written examination credits, and current AIP volumes 2 and 3 and appropriate navigation charts in accordance with industry texts and standards. Two pilot crews require the additional responsibility of an on-the-ground briefing from the pilot-in-command.
- Definitions, abbreviations, and acronyms used in this unit standard are to be found in:
  - Civil Aviation Rules Part 1* on the CAA website at <https://www.caa.govt.nz>, and
  - 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>.
- All references to the CAA refer specifically to the Civil Aviation Authority of New Zealand.
- Industry standards and recommended practices are those set in place by the CAA.
- Industry texts may include but are not limited to – aircraft flight manuals, CAA Rules, CAA Advisory Circulars, Flight Test Standards Guides, manufacturers' handbooks, operator exposition.
- 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 instrument rating.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate on-the-ground preparation for an instrument rating for a multi-engine aircraft.

#### Performance criteria

- 1.1 Personal factors are demonstrated in accordance with industry texts and standards.
- Range may include but is not limited to – fitness to fly, pilot licence, logbook, documentation of credits, grooming, deportment, punctuality, personal presentation.
- 1.2 Flight experience requirements for IR are described in accordance with industry texts and standards.
- 1.3 Operational flight plan preparation is demonstrated in accordance with industry texts and standards.
- Range may include but is not limited to – meteorological data, NOTAMS, flight planning data, alternate requirements appropriate go/no go decision, ATS flight planning, assessment of aircraft for the route.
- 1.4 Knowledge of flight rules is demonstrated in accordance with industry texts and standards.
- 1.5 Flight preparation is demonstrated in accordance with industry texts and standards.
- 1.6 Passenger briefing is demonstrated in accordance with industry texts and standards.
- 1.7 RTF procedures and navigation aid tuning are demonstrated in accordance with industry texts and standards.
- 1.8 Loss of communication or navigation aid failure procedures are explained in accordance with industry texts and standards.

### Outcome 2

Demonstrate in-flight competence for an instrument rating for a multi-engine aircraft.

#### Performance criteria

- 2.1 Transition to instrument flight is demonstrated in accordance with industry texts and standards.
- 2.2 Straight and level flight under IFR is demonstrated in accordance with industry texts and standards.

- 2.3 Turns under IFR are demonstrated in accordance with industry texts and standards.
- 2.4 Climbing and descending under IFR are demonstrated in accordance with industry texts and standards.
- 2.5 Limited panel flight is demonstrated in accordance with industry texts and standards.

### **Outcome 3**

Demonstrate technical skills for an instrument rating for a multi-engine aircraft.

#### **Performance criteria**

- 3.1 Departure procedures are demonstrated in accordance with industry texts and standards.
- 3.2 Enroute procedures are demonstrated in accordance with industry texts and standards.
- 3.3 Use of checklists is demonstrated in accordance with industry texts and standards.
- 3.4 General use of autopilot is demonstrated in accordance with industry texts and standards.
- 3.5 Interception and tracking are demonstrated in accordance with industry texts and standards.  
  
Range            may include but is not limited to – GNSS, NDB, VOR.
- 3.6 Radiotelephony tuning and procedures are demonstrated in accordance with industry texts and standards.
- 3.7 Procedures for engine failure after take-off are demonstrated in accordance with industry texts and standards.
- 3.8 Procedures for one engine inoperative performance are demonstrated in accordance with industry texts and standards.
- 3.9 Recovery from unusual attitudes using full panel is demonstrated in accordance with industry texts and standards.
- 3.10 Joining procedure is demonstrated in accordance with industry texts and standards.  
  
Range            may include but is not limited to – overhead the aid, DME, GNSS arc, radar.

- 3.11 Instrument holding procedure is demonstrated in accordance with industry texts and standards.

Range may include but is not limited to – NDB, VOR, GNSS.

- 3.12 Instrument approach is demonstrated in accordance with industry texts and standards.

Range may include but is not limited to – NDB, VOR GNSS, ILS, circling (aeroplane), fully automated, non-automated.

- 3.13 Missed approach procedure is demonstrated in accordance with industry texts and standards.

#### Outcome 4

Demonstrate knowledge of threat and error management for an instrument rating for a multi-engine aircraft.

#### Performance criteria

- 4.1 Threat and error management techniques are demonstrated in accordance with industry texts and standards.

<b>Replacement information</b>	This unit standard replaced unit standard 16321.
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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

<b>Consent and Moderation Requirements (CMR) reference</b>	0169
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.