



Australian Government

AVILIC0002 Licence to operate a commercial helicopter

Release: 1

AVILIC0002 Licence to operate a commercial helicopter

Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

Application

This unit involves the skills and knowledge required to obtain a commercial pilot licence (helicopter), in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It addresses the following competency standards in the Civil Aviation Safety Regulations (CASRs) Part 61 Manual of Standards Instrument:

Common standards

- communicating in the aviation environment
- perform pre- and post-flight actions and procedures
- operate aeronautical radio
- manage fuel
- manage passengers and cargo
- non-technical skills 1 (manage a safe flight)
- non-technical skills 2 (recognise, direct and manage threats and errors)

Navigation and instrument flying standards

- radio navigation – en route
- full instrument panel manoeuvres
- limited instrument panel manoeuvres
- operate at a controlled aerodrome
- operate at non-towered aerodrome
- operate in controlled airspace
- operate in Class G airspace

Aircraft rating standards: helicopter category

- control helicopter on the ground
- control helicopter in lift-off, hover and landing
- taxi helicopter
- take-off helicopter and approach to hover
- control helicopter in normal flight
- control helicopter during advanced manoeuvres
- manage abnormal situations and emergencies – helicopter.

This unit addresses aviation non-technical skills and knowledge requirements (mental, social and personal-management abilities) related to commercial pilot duties, and contributes to safe and

effective performance in complex aviation operational environments.

This unit addresses aviation technical skills and knowledge requirements (physical, mental and task-management abilities) related to commercial pilot duties, and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of commercial or military aircraft activities across a variety of operational contexts within the Australian aviation industry.

Work is performed independently or under limited supervision within a single-pilot or multi-crew environment.

Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Use for Defence Aviation is to be in accordance with relevant Defence Orders, Instructions, Publications and Regulations.

Pre-requisite Unit

Not applicable.

Competency Field

LIC – Licensing

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Communicate in an aviation environment

2 Perform pre- and post-flight actions

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Effective face-to face communication techniques are applied in accordance with general English language principles

1.2 Aeronautical radio is operated using appropriate operational communication aviation phraseology and terminology

2.1 Pre-flight actions and procedures are completed

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| and procedures | 2.2 | Pre-flight inspection is performed |
| | 2.3 | Post-flight actions and procedures are completed |
| 3 Operate
aeronautical radio | 3.1 | Radio equipment is operated |
| | 3.2 | Radio telephone equipment malfunctions are managed |
| | 3.3 | Aircraft transponder is operated during normal, abnormal and emergency situations |
| 4 Manage fuel | 4.1 | Fuel plan requirements are determined |
| | 4.2 | Fuel system is managed |
| | 4.3 | Aircraft refuelling procedures are correctly completed |
| 5 Manage passengers
and cargo | 5.1 | Passengers are managed |
| | 5.2 | Passengers are aided and assisted as required |
| | 5.3 | Cargo is managed |
| 6 Manage a safe flight | 6.1 | Effective lookout is maintained |
| | 6.2 | Situational awareness is maintained |
| | 6.3 | Situations are assessed and effective decisions are made |
| | 6.4 | Task priorities are set and tasks are managed |

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| | 6.5 | Effective communications and interpersonal relationships are maintained |
| 7 Recognise, direct and manage threats and errors | 7.1 | Threats are recognised and managed |
| | 7.2 | Errors are recognised and managed |
| | 7.3 | Undesired aircraft states are recognised and managed |
| 8 Navigate aircraft | 8.1 | Documents and flight plans are prepared |
| | 8.2 | Airspace procedures are complied with while navigating |
| | 8.3 | Departure procedures are conducted |
| | 8.4 | Aircraft is navigated en route to waypoint or destination |
| | 8.5 | Aircraft is navigated at low level and in reduced visibility |
| | 8.6 | Lost procedure is performed as required |
| | 8.7 | Diversion procedure is performed as required |
| | 8.8 | Instrument navigation systems are used to navigate under visual or instrument flight rules |
| | 8.9 | Arrival procedures are executed |
| 9 Control helicopter on the ground | 9.1 | Engine is started and stopped |
| | 9.2 | Rotor is engaged and stopped |

- 9.3 Main rotor disc and anti-torque system are controlled
- 10 Control helicopter in lift-off, hover and landing**
 - 10.1 Aircraft is lifted off to hover and hover checks are performed
 - 10.2 Helicopter is hovered in cross and tail wind conditions
 - 10.3 Turns around the mast are performed
 - 10.4 Turns around the nose and tail are performed
 - 10.5 Sideways and backwards flight manoeuvres are performed
 - 10.6 Aircraft is landed from the hover
 - 10.7 Mishandled landings are managed
 - 10.8 Mishandled lift offs are managed
- 11 Taxi helicopter**
 - 11.1 Air taxiing manoeuvres are performed
 - 11.2 Air transiting manoeuvres are performed
- 12 Take-off helicopter and approach to hover**
 - 12.1 Pre-take-off checks are carried out
 - 12.2 Aircraft take-off is performed
 - 12.3 Approach to hover is performed
 - 12.4 Go-around procedure is performed

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| 13 Control helicopter in normal flight | <p>13.1 Helicopter is climbed while maintaining indicated airspeed (IAS) for cruise climb and best angle of climb (V_x) or best rate of climb (V_y)</p> <p>13.2 Straight and level flight is maintained</p> <p>13.3 Helicopter in descent is conducted under varying combinations of direction, speed and aircraft configuration</p> <p>13.4 Helicopter is turned from a known heading to a nominated heading, track or geographical feature</p> <p>13.5 Helicopter is controlled at any speed within approved flight envelope</p> <p>13.6 Helicopter circuits and approaches are performed</p> <p>13.7 Airspace requirements are complied with</p> |
| 14 Control helicopter during advanced manoeuvres | <p>14.1 Helicopter is turned steeply through level flight and descending flight profiles</p> <p>14.2 Autorotative flight is performed</p> <p>14.3 Helicopter is landed on and lifted off sloping ground</p> <p>14.4 Helicopter is landed, manoeuvred and taken off within confined areas</p> <p>14.5 Limited power take-off, approach and landings are executed</p> |
| 15 Manage abnormal situations and emergencies | <p>15.1 Forced landing from level flight, after take-off or on approach is managed</p> <p>15.2 Engine failure at the hover or during taxi is managed</p> |

- 15.3 Tail rotor malfunction is managed
 - 15.4 Jammed flight control system is managed
 - 15.5 Flight in adverse aerodynamic conditions is managed
 - 15.6 Helicopter operating system malfunction is managed
- 14 Operate using full instrument panel**
- 14.1 Serviceability of flight instruments and instrument power sources is determined and monitored
 - 14.2 Full instrument panel manoeuvres are performed
 - 14.3 Upset situations and unusual aircraft attitude recovery is performed using full instrument panel
- 15 Operate using limited instrument panel**
- 15.1 Attitude indicator and stabilised heading indicator failures are recognised
 - 15.2 Limited instrument panel manoeuvres are performed
 - 15.3 Upset situations and unusual aircraft attitude recovery is performed using limited instrument panel
 - 15.4 Visual flight is re-established
- 16 Navigate using radio navigation aids and systems**
- 16.1 Radio navigation systems are operated and monitored
 - 16.2 Aircraft is navigated using navigation aids and systems
- 17 Operate at non-towered aerodromes**
- 17.1 Preparations for non-towered aerodrome operations are conducted
 - 17.2 Aircraft is taxied at non-towered aerodrome or landing area

- 17.3 Non-towered aerodrome or landing area departure is performed
 - 17.4 Non-towered aerodrome or landing area arrival is performed
- 18 Operate in Class G airspace**
 - 18.1 Aircraft is operated in Class G airspace
 - 18.2 Appropriate tolerances are applied and maintained
 - 18.3 Aircraft radio procedures are implemented as required
 - 18.4 Operations are conducted in accordance with suitable charts
 - 18.5 Appropriate actions are performed in abnormal operations and emergencies
- 19 Operate at a controlled aerodrome**
 - 19.1 Preparations for controlled aerodrome operations are conducted
 - 19.2 Aircraft is taxied at controlled aerodrome
 - 19.3 Controlled aerodrome departure is performed
 - 19.4 Controlled aerodrome arrival and landing are performed
- 20 Operate in controlled airspace**
 - 20.1 Aircraft is operated in controlled airspace
 - 20.2 Airways clearance requirements are complied with
 - 20.3 Tracking and altitude tolerances are maintained when operating on an airways clearance
 - 20.4 Separation standards are applied between instrument and visual flights within controlled airspace

- 20.5 Appropriate abnormal and emergency response actions are implemented as required
- 20.6 Air traffic control directions, instructions and requirements are adhered to within controlled airspace

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>

Assessment Requirements for AVILIC0002 Licence to operate a commercial helicopter

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying competence as a commercial pilot within flight tolerance standards specified by the appropriate licence authority
- conducting airspace operations in:
 - class G airspace
 - controlled aerodrome
 - controlled airspace
 - non-towered aerodrome.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- aircraft loading systems
- aircraft performance and landing calculations
- aircraft speed limitations
- aircraft systems
- applicability of drug and alcohol regulations
- classification of operations
- commercial pilot licence (CPL) maintenance authorisations
- day visual flight rules (VFR) commercial aircraft instrument requirements
- emergency equipment requirements
- flight and duty time limits
- fuel planning and oil requirements for the flight
- global navigation satellite system (GNSS) and its use in VFR navigation
- loading and unloading fuel
- managing cargo and passengers
- privileges and limitations of a CPL with helicopter category rating

- requirements for an Air Operator's Certificate (AOC)
- requirements for landing areas and aerodromes
- type of information contained in an operations manual.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- acceptable means of simulation assessment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

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