



Australian Government

AVIY0059 Control helicopter on the ground

Release: 1

AVIY0059 Control helicopter on the ground

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 control a helicopter on the ground in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes starting and stopping a helicopter engine, engaging the rotor, and controlling the main rotor disc and anti-torque system.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational duties of flight crew and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of recreational, commercial and 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.

Pre-requisite Unit

Not applicable.

Competency Field

Y – Aircraft Operation and Traffic Management

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Start engine and rotor

- 1.1** Helicopter is positioned with a view to safety and rotor clearance when starting engine and rotors
- 1.2** Wind conditions are assessed for start
- 1.3** Pre-start checklist actions are performed
- 1.4** Engine start and rotor engagement are performed
- 1.5** Disc/rotor position is controlled during start
- 1.6** Engine is operated within aircraft limits
- 1.7** Emergencies are managed

2 Stop engine and rotor

- 2.1** Wind conditions are assessed and appropriate allowances made
- 2.2** Helicopter is positioned with a view to safety and rotor clearance when stopping engine and rotors
- 2.3** Engine shutdown and rotor stop are performed
- 2.4** Disc/rotor position is controlled during shutdown
- 2.5** Engine and transmission system indications are monitored and managed

3 Control main rotor disc and anti-torque system

- 3.1** Main rotor disc attitude is maintained during all rotor speed (RRPM) operations
- 3.2** Anti-torque pedals are set to compensate for main rotor torque
- 3.3** Rotor disc attitude and RRPM are managed while performing other tasks or actions

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

This unit replaces and is equivalent to AVIY4011 Control helicopter on the ground.

Links

AVI Training Package Companion Volume Implementation Guide available on VET Net: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>

Assessment Requirements for AVIY0059 Control helicopter on the ground

Modification History

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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, performance criteria on at least one occasion and include:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant helicopter aeronautical knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others when controlling helicopter on the ground
- completing relevant documentation
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying identified problems promptly in accordance with regulatory requirements and workplace procedures
- selecting and using relevant controls/equipment including throttle, rotor controls, anti-torque pedals and collective and cyclic pitch controls
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- solving problems associated with controlling a helicopter on the ground
- using instruments to monitor helicopter performance
- working collaboratively with others when controlling helicopter on the ground
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

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

- aerodrome landing area markings, and light and marshalling signals
- aircraft operational start limitations
- applicable helicopter systems
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to helicopter operations
- clearing of rotor blades
- dynamic roll over
- effect of wind on engines and rotor blades (blade sailing)
- fire management applicable to engine starting and stopping
- fitted fire-fighting extinguishing system and its applications
- fuel system, including cause and effect of fuel vaporisation
- ground resonance
- helicopter braking and steering systems
- helicopter starter motor limitations
- hot and cold engine start procedures
- local air traffic control (ATC) procedures
- local noise abatement procedures and curfews
- on-ground helicopter control procedures, including:
 - operating on different surfaces, including sealed and unsealed surfaces
 - pre-start checks
 - after-start checks
 - regulations and procedures relating to ground operation of rotorcraft
- relevant helicopter/equipment characteristics
- relevant sections of CASRs and Civil Aviation Orders
- relevant sections of the aircraft flight manual (AFM)/pilot's operating handbook (POH)
- relevant WHS and environmental procedures and regulations
- rotor engagement system
- shutdown checks
- use of filtered air.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations. Where this is not appropriate,

assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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.

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 PPE currently used in industry.

Links

AVI Training Package Companion Volume Implementation Guide available on VET Net: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>