



Australian Government

AVIY4001 Control aeroplane on the ground

Release: 1

AVIY4001 Control aeroplane 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 an aeroplane on the ground, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes starting and stopping an aeroplane engine, and taxiing an aeroplane.

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.

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

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 outcomes.

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

1 Start and stop engine

- 1.1 Pre-start and after-start checks are completed in accordance with aircraft flight manual (AFM)/pilot's operating handbook (POH)
- 1.2 Engine is started and shut down in accordance with AFM/POH
- 1.3 Emergencies are managed in accordance with AFM/POH and regulatory requirements
- 1.4 Pre-and after shutdown checks are completed in accordance with AFM/POH
- 1.5 Manufacturer limitations are complied with and deviations are reported as required
- 1.6 Aeroplane is positioned to ensure safety when starting engine

2 Taxi aeroplane

- 2.1 Automatic terminal information service (ATIS) reports and taxi clearance are obtained as required
- 2.2 Aeroplane control and safe taxi speed is maintained in accordance with prevailing aerodrome, traffic, surface and weather conditions
- 2.3 Brake serviceability and functionality checks are performed clear of conflicting traffic and other hazards to confirm serviceability
- 2.4 Instrument checks are conducted and altimeter settings are adjusted to confirm serviceability prior to aircraft departure
- 2.5 Engine handling and braking on the ground is in accordance with AFM/POH
- 2.6 Airfield markings/lights/signals/indicators are interpreted and complied with
- 2.7 Lookout is maintained and right-of-way rules are adhered to while complying with applicable air traffic control (ATC) or marshalling instructions
- 2.8 Adverse effect of propeller slipstream or jet wash on other aeroplanes, aerodrome facilities and personnel is avoided
- 2.9 Taxi path is inspected when surface conditions are obscured

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 AVIY4001B Control aeroplane on the ground.

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 AVIY4001 Control aeroplane 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 and performance criteria on at least one occasion and include:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeroplane aeronautical knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others when controlling an aeroplane on the ground
- completing relevant documentation
- complying with regulatory requirements and local air traffic control instructions
- controlling an aeroplane on the ground in accordance with aircraft flight manual (AFM)/pilot's operating handbook (POH)
- controlling and managing engine start and shut-down emergencies
- identifying and correctly using required equipment
- identifying suitable parking areas
- implementing contingency plans
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- interpreting airfield diagrams
- interpreting and communicating operational information
- interpreting and following operational instructions and prioritising work
- interpreting marshalling signals
- manoeuvring aeroplane on the ground without incident
- 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 equipment including throttle, steering and brakes

- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards
- starting and stopping aeroplane engines
- taking appropriate actions in a brake, tyre or steering failure
- taxiing aeroplanes within controlled or uncontrolled aerodrome environments
- using instruments to monitor aeroplane performance
- working collaboratively with others
- 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 and performance criteria and include knowledge of:

- aerodrome markings, lighting and marshalling signals
- aeroplane type recognition
- aircraft weight and balance and how to calculate the aircraft centre of gravity
- carburettor icing
- care of propellers
- CASR Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- cause and effect of fuel vaporisation
- contents of the AFM and POH for the aircraft being flown
- day visual flight rules (VFR)
- differences between normally aspirated and fuel-injected systems
- environmental conditions that represent visual meteorological conditions (VMC)
- in a Defence context, relevant Defence Orders and Instructions
- local air traffic control procedures
- meaning and interpretation of:
 - light and marshalling signals
 - aerodrome markings, signals and local procedures
- on-ground control procedures including pre-start checks, clearing propellers, use of filtered air, hot and cold engine start, after-start checks, pre-shutdown checks, actions in a brake or tyre failure, aeroplane emergency management, and engine hand-start procedures
- propeller wash, rotor wash and jet blast and how they affect other aircraft
- relevant aeroplane/equipment characteristics including starter system limitations, fuel system including cause and effect of fuel vaporisation, and aeroplane braking and steering systems
- relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders
- relevant sections of the aeronautical information package (AIP)

- relevant sections of the relevant AFM/POH
- relevant WHS/OHS and environmental procedures and regulations
- typical aircraft performance characteristics of single-engine aeroplanes and the effects of local weather conditions on performance
- typical single-engine aeroplane aircraft systems.

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.

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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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