Australian Government

Department of Education, Employment and Workplace Relations

AVIY4001B Control aeroplane on the ground

Revision Number: 1

INDUSTRY SKILLS COUNCILS

Creating Australia's Future

AVIY4001B Control aeroplane on the ground

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to control an aeroplane on the ground including starting and stopping an aeroplane engine, fulfilling all required safety requirements, performing pre-taxi functions and manoeuvring the aeroplane on the ground without incident. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

Application of the Unit

Work must be carried out in compliance with the relevant licence and aircraft rating requirements of the Civil Aviation Safety Authority (CASA) and/or ADF; airspace control requirements and Day Visual Flight Rules (Day VFR); and aircraft control principles, regulations, safety codes, protocols and procedures relating to controlling an aeroplane on the ground.

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

Use for ADF Aviation is to be in accordance with relevant Defence Orders and Instructions and applicable CASA compliance.

Work is performed under limited supervision.

This unit is nominally packaged at Certificate IV.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Start and stop engine	1.1 Pre-start and after-start checks are completed in accordance with Flight Manual/POH
	1.2 Engine is started and shut down in accordance with Flight Manual/POH
	1.3 Emergencies are managed in accordance with Flight Manual/POH and regulatory requirements
	1.4 Pre-and after shutdown checks are completed in accordance with Flight Manual/POH
	1.5 Complies with manufacturers limitations and reports deviations when appropriate
	1.6 Aeroplane is positioned to ensure safety when starting engine
2 Taxi aeroplane	2.1 ATIS reports and taxi clearance are obtained where applicable
	2.2 Aeroplane is taxied at a safe speed and in accordance with prevailing aerodrome, traffic, surface and weather conditions
	2.3 Brake and instrument checks are performed clear of conflicting traffic and other hazards to confirm serviceability
	2.4 Engine handling and braking on the ground is in accordance with Flight Manual/POH
	2.5 Airfield markings/lights/signals/indicators are interpreted and complied with
	2.6 Maintains lookout and right-of-way rules and complies with ATC or marshalling instructions when applicable
	2.7 Adverse effect of propeller slipstream or jetwash on other aeroplanes, aerodrome facilities and personnel is avoided
	2.8 Inspection of taxi path is carried out when surface conditions are obscured

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

- Relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders
- In Defence context, relevant Defence Orders and Instructions
- Relevant OH&S and environmental procedures and regulations
- Relevant aeroplane/equipment characteristics including starter system limitations, fuel system including cause and effect of fuel vaporisation, and aeroplane braking and steering systems
- On-ground control procedures including pre-start checks, clearing of propellers, use of filtered air, hot and cold engine start, after-start checks, pre-shutdown checks, actions in the event of brake or tyre failure, aeroplane emergency management, and engine hand-start procedures where applicable
- Aerodrome markings, lighting and marshalling signals
- Relevant sections of the Flight Manual/POH
- Local air traffic control procedures
- Aeroplane type recognition

Required skills:

- Control an aeroplane on the ground in accordance with Flight Manual/POH
- Control and manage emergencies
- Manoeuvre aeroplane on the ground without incident
- Perform various on-ground functions simultaneously as required
- Interpret marshalling signals
- Interpret airfield diagrams
- Identify suitable parking areas
- Comply with regulatory requirements and local air traffic control instructions
- Interpret and communicate operational information
- Select and use relevant equipment including throttle, steering and brakes
- Use instruments to monitor aeroplane performance
- Communicate effectively with others when controlling an aeroplane on the ground
- Read and interpret instructions, regulations, procedures and other information relevant to controlling an aeroplane on the ground
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to controlling an aeroplane on the ground
- Operate electronic communication equipment to required protocol

REQUIRED KNOWLEDGE AND SKILLS

- Work collaboratively with others when controlling aeroplane on the ground
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems that may occur when controlling an aeroplane on the ground in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when controlling an aeroplane on the ground
- Apply precautions and required action to minimise, control or eliminate hazards that may exist when controlling an aeroplane on the ground
- Monitor and anticipate operational problems and hazards and take appropriate action
- Monitor work activities in terms of planned schedule
- Modify activities dependent on differing workplace contingencies, situations and environments
- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Adapt to differences in equipment and operating environment in accordance with standard operating procedures
- Select and use required personal protective equipment conforming to industry and OH&S standards
- Implement OH&S procedures and relevant regulations
- Identify and correctly use equipment required when controlling an aeroplane on the ground

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit	• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: • the underpinning knowledge and skills • relevant legislation and workplace procedures • other relevant aspects of the range statement
Context of and specific resources for assessment	• Performance is demonstrated consistently over a period of time and in a suitable range of contexts • Resources for assessment include: • a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or • access to an appropriate range of relevant operational situations in the workplace • In both real and simulated environments, access is required to: • relevant and appropriate materials and equipment, and • applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
Method of assessment	• Assessment of this unit must be undertaken by a registered training organisation • As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests • Practical assessment must occur: • through activities in an appropriately simulated environment at the registered training organisation, and/or • in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Tasks may be undertaken in:	• variable weather conditions in accordance with Day Visual Flight Rules
Performance may be demonstrated in:	• single engine aeroplane • multi engine aeroplane • variable air traffic conditions • variable weather conditions • variable ground traffic conditions • abnormal situations • classes of airspace as designated by the Civil Aviation Safety Authority
Performance may be demonstrated on an aeroplane with:	• fully functioning dual controls • an electronic intercom system • dual control brakes • (if propeller-driven) a constant speed propeller • a cruise speed of at least 120 kts TAS at cruise power • a suitable means of simulating instrument flight conditions
Aeroplane may include:	• fixed wing • other commercial or military aircraft
Crew may include:	• single pilot • multi crew
Instruments may be:	• fitted flight instruments • head up displays
Limitations may be imposed by:	• local noise abatement requirements and curfews • airspace endorsements
Classes of airspace may be:	• as designated by the regulator • restricted and danger areas • military control zones • Air Defence Identification Zones
Surfaces may include:	• sealed • gravel • grass
Dependent on the type of organisation concerned and the local terminology used, workplace procedures may include:	• company procedures • enterprise procedures • organisational procedures • established procedures • standard operating procedures

RANGE STATEMENT

Information/documents may include:	• relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders pertaining to the control of aircraft on the ground including Day Visual Flight Rules (Day VFR) • in Defence context, relevant Defence Orders and Instructions • Flight Manual/Pilot's Operating Handbook (POH) • Manual of Standards - Pilot Licensing (MOS-PL) • operations manuals • local air traffic control instructions • approved checklists • workplace procedures and instructions and job specification • induction and training materials • conditions of service, legislation and industrial agreements including workplace agreements and awards
Applicable regulations and legislation may include:	• relevant Civil Aviation Safety Regulations and Civil Aviation Orders • in ADF context, relevant Defence Orders and Instructions • relevant state/territory OH&S legislation • relevant state/territory environmental protection legislation • relevant Australian Standards
Performance includes tolerances specified in either of:	• relevant licence and aircraft rating requirements of the Civil Aviation Safety Authority (CASA) such as: • Day VFR Syllabus • Manual of Standards • relevant Defence documentation such as: • Defence Orders and Instructions • approved curricula and training documentation

Unit Sector(s)

Not applicable.

Competency field

Competency Field Y - Aircraft Operation and Traffic Management