



THE REDCLIFFE AERO CLUB

STUDENT RECOGNITION OF PRIOR LEARNING (RPL)

AVI50219 Diploma of Aviation (Commercial Pilot Licence – Aeroplane)



Summary of Evidence included in portfolio “Summary Table”

List here any evidence you have ticked, and/or other evidence you are providing for this unit of competency, so that your RTO assessor can refer to it in your portfolio, please ensure that your item numbers are consistent with that of your portfolio documentation.

Item No.	Unit of Competency / Performance Criteria	Source of the Evidence	Description of Evidence	Date	Verified / Assessor Initial
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AVIE0006 Maintain Aircraft Radio Communication

Units of Competency

Application

This unit describes the skills and knowledge required to maintain aircraft radio communications, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards. It includes operating radio equipment, managing radio equipment malfunctions and operating transponders.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft radio operator 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

E – Communication and Calculation

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIE0006>

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 AVIE4001 Maintain aircraft radio communications

Links

Companion Volume Implementation guide are found in VETnet:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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 basic fault-finding techniques related to defective radiotelephone equipment
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- complying with regulatory requirements pertaining to aircraft radiotelephone communications
- identifying and correctly using relevant radiotelephone equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- interpreting and reacting appropriately to light signals from air traffic control
- interpreting relevant instructions, regulations, procedures and information
- manipulating any switch or device requiring the release of flight controls without changes to height, heading, speed, attitude, exceeding engine speed (RPM) or power limits
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- using Aviation English Language to a proficiency standard that enables requests and instructions to be understood by air traffic service and other stations, and ensures compliance with received instructions
- using oral and written English language communication skills sufficient to support situational awareness within flight radio operations
- 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, performance criteria and include knowledge of:

- characteristics of radio waves, wave propagation, transmission and reception:
 - radio frequency band ranges
 - medium frequency (MF)
 - high frequency (HF)
 - very high frequency (VHF)
 - ultra-high frequency (UHF)
 - properties of radio waves



- propagation of paths of radio waves:
 - ground waves
 - sky waves
- factors affecting the propagation of radio waves:
 - terrain
 - ionosphere
 - sunspot activity
 - interference from electrical equipment
 - thunderstorms
 - power attenuation
- radio antennas:
 - characteristics of antennas
 - use of antennas
- components of aeronautical radio systems, including:
 - power source or battery switch, radio master, microphone
 - transmitter
 - receiver
 - antenna
 - location of aerial antennas relevant to radio configuration
 - headphones and speaker
 - procedures for using an aeronautical radio system
 - setting up an aeronautical radio relevant to radio configuration
 - use of radio transmit and receive selector switches (VHF, HF, intercom(I/C), public address (PA))
 - turning a radio on and off
 - selecting correct frequencies
 - use of squelch control
 - correct use of a microphone
- documented radio procedures relevant to the visual flight rules (VFR)
- emergency transponder codes for distress, radio failure and unlawful interference
- fault-finding procedures and corrective actions for radiotelephone equipment not involving special tools or instruments
- faults that may occur in radiotelephone equipment and appropriate fault detection and remedial action that can be taken
- international radio telephony distress frequencies
- light signals, including interpretation and actions required
- operating procedures for aircraft radiotelephone equipment
- phonetic alphabet
- principles of effective radio telephony communications
- problems that may occur during radio communications and action that can be taken to overcome them
- relevant sections of Civil Aviation Orders and regulations pertaining to aircraft radio communications
- relevant WHS/OHS and environmental procedures and regulations
- responsibilities of an aeronautical radio operator, including:
 - secrecy of communications
 - unauthorised transmissions
- standard radiotelephony phraseology as outlined in an aeronautical information publication (AIP).



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 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
- relevant materials, tools, equipment and currently used in Industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- acceptable means of simulation assessment

Unit of Competency – <https://training.gov.au/Training/Details/AVIE0006>

Assessment Requirements – <https://training.gov.au/Training/Details/AVIE0006>

AVIE006 Maintain aircraft radio communication

Element Elements describe the essential outcomes.	Performance Criteria Performance criteria describes the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
1. Operate radio equipment	1.1 Serviceability of radio equipment is confirmed				
	1.2 Transmission and receipt of radio communications is conducted using appropriate procedures and phraseology				
	1.3 A listening watch is maintained and applicable transmissions responded to appropriately				
	1.4 Appropriate emergency and urgency transmissions are conducted				
2. Manage radio equipment malfunctions	2.1 Radio failure procedures are performed as required				
	2.2 Fault-finding procedures and corrective actions not involving special tools or instruments are employed				
3. Operate transponder	3.1 Aircraft transponder is operated and monitored in accordance with the aeronautical information publication (AIP) during normal operations				
	3.2 Aircraft transponder is operated and monitored in accordance with the AIP during abnormal and emergency operations				



AVIF0033 Manage Aircraft Passengers and Cargo

Units of Competency

Application

This unit involves the skills and knowledge required to manage aircraft passengers and cargo, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards. It includes managing passengers during normal operations, managing passengers during abnormal or emergency situation, and managing cargo.

This unit addresses aviation technical skill requirements (physical, mental and task management abilities) related to the safety management duties of for 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 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

F – Safety Management

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIF0033>

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

The unit replaces and is equivalent to AVIF0011 Manage aircraft passengers and cargo

Links

Companion Volume Implementation Guide at:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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 and range of conditions on at least one occasion and include:

- accepting, managing, and safely handling, loading and unloading aircraft cargo as required
- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- aiding and assisting passengers appropriately during an emergency
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- briefing passengers on:
 - emergency procedures on the ground and in the air
 - flight details
 - location of emergency exits
- calculating and managing aircraft cargo as required
- communicating effectively with others when managing aircraft passengers and cargo
- completing relevant documentation
- conducting cargo calculations including weight, balance and deck loading
- controlling cabin temperature
- indicating the location of airsickness bags
- demonstrating how to:
 - secure and release seat belts and/or safety harnesses
 - secure stowage hand luggage
- demonstrating how to use:
 - flotation devices
 - fresh air vents
 - oxygen equipment as required
 - safety equipment
- determining and applying safety and security requirements
- ensuring passengers are aware of hazardous conditions and emergencies during flight, and related safety and emergency procedures
- exercising control of passengers on the ground and in the aircraft
- explaining:
 - operation of doors and escape hatches
 - precautions to avoid interference with flight controls
 - smoking requirements
- identifying and correctly using relevant equipment
- identifying and labelling cargo
- identifying dangerous goods and applying dangerous goods procedures
- implementing contingency plans
- implementing decisions for carriage or non-carriage and management of load
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work



- maintaining compliance with regulatory requirements
- 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
- operating emergency equipment applicable to flight
- organising first aid as required during an in-flight emergency
- reading interpreting and following relevant instructions, regulations, procedures and signs
- reporting and/or rectifying any problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- responding appropriately to cultural differences in the workplace
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS/OHS standards
- understanding and anticipating the needs of passengers
- using loading and cargo securing devices
- 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, performance criteria and range of conditions and include knowledge of:

- applicable emergency procedures
- cargo management procedures
- dangerous goods awareness
- hazards that may arise during a flight and related action that should be taken to alert passengers and advise them of precautionary measures
- local procedures for passenger movement
- managing passengers during abnormal or emergency situations
- policies and procedures for passenger safety before, during and after flight
- principles of good customer service
- problems that may occur when managing aircraft passengers and cargo, and appropriate action that should be taken in each case
- procedures for accepting, managing and calculating aircraft cargo including dangerous goods
- regulatory requirements and workplace procedures for briefing passengers
- relevant WHS/OHS and environmental procedures and regulations
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders pertaining to briefing passengers, and managing passengers and cargo including dangerous goods
- responsibilities and authority of a pilot in command
- security requirements



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 and appropriate materials, tools, equipment and personal protective equipment currently used in industry

Unit of Competency – PDF <https://training.gov.au/Training/Details/AVIF0033>

Assessment Requirements – PDF <https://training.gov.au/Training/Details/AVIF0033>

AVIF0033 Manage Aircraft Passengers and Cargo

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
1. Manage passengers during normal operations	1.1 Passengers are briefed on safety, normal and emergency procedures before flight in accordance with regulatory requirements, orders and operations manual				
	1.2 Passengers safety, comfort and wellbeing is provided for in accordance with regulatory requirements and workplace procedures				
	1.3 Passengers are managed on the ground and in the air in accordance with regulatory requirements, orders and operations manual				
2. Manage passengers during an abnormal or emergency situation	2.1 Passengers are warned of potential hazardous conditions and emergencies during flight, and are briefed about related safety and emergency procedures in accordance with regulatory requirements, orders and operations manual				
	2.2 Passengers are advised of nature of emergency and the procedures and precautions to be followed				
	2.3 Clear communication is established and maintained with passengers				
	2.4 Passengers are managed during an emergency in accordance with regulatory requirements and workplace procedures				

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
3. Manage Cargo	3.1 Cargo is managed in accordance with regulatory requirements and workplace procedures				
	3.2 Cargo calculations are completed in accordance with workplace procedures and regulatory requirements				
	3.3 Dangerous goods are identified and procedures are applied to ensure safety and security of people and cargo.				



AVIW0029 Manage Pre-and Post-Flight Actions

Units of Competency

Application

This unit involves the skills and knowledge required to manage pre-and post-flight actions, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes completing pre- and post-flight administration, performing pre- and post-flight actions/ inspections, and performing and certifying daily inspections.

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

Operations are conducted as part of recreational, commercial or military aircraft 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

W – Equipment and systems operations

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIW0029>

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 AVIW4001 Manage pre- and post-flight actions.

Links

Companion Volume Implementation guide are found in VETnet:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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:

- accessing and applying relevant regulations, orders and information to the performance of the required planning, pre- and post-flight administrative functions
- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- applying air safety practices and regulations
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeronautical knowledge
- calculating aircraft performance for all phases of flight
- calculating fuel requirements
- calculating rotorcraft hover performance (for rotorcraft only)
- calculating take-off and landing performance
- certifying aircraft flight technical log
- communicating effectively with others
- completing internal and external aircraft checks
- completing relevant documentation
- complying with flight authorisations
- conducting maintenance and flight briefings
- determining optimum cruise altitude for operations safety and efficiency requirements
- ensuring all aircraft locking and securing devices, covers and bungs are removed and stowed securely
- entering defects or endorsements to permissible unserviceability in aircraft flight technical log
- identifying all relevant radio and navigation aid facilities to be used during flight
- identifying and correctly using relevant equipment
- identifying and securing equipment and documentation required for flight
- identifying minimum equipment applicable to aircraft type
- identifying special aerodrome procedures
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- liaising with qualified maintenance personnel to determine action required in relation to identified defects or damage
- meeting flight crew obligations and restrictions in regard to daily inspections and certification
- 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



- obtaining, interpreting and applying relevant information contained in required pre-flight operational documentation:
 - minimum equipment list (MEL)
 - maintenance release
 - weather forecasts
 - local observations
 - Notice to Airmen (NOTAM)
 - global navigation satellite system (GNSS) receiver autonomous integrity monitoring (RAIM) information
 - Enroute Supplement Australia (ERSA)
 - aeronautical information package (AIP)
- operating electronic communications equipment to required protocol
- performing input and downloading of data from flight planning systems if applicable
- performing tie-down, covering and securing of aircraft
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying problems, faults or malfunctions, in accordance with workplace procedures
- selecting and using relevant equipment required when managing pre- and post-flight actions
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- 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, performance criteria and range of conditions and include knowledge of:

- aircraft entry and exit procedures
- aircraft maintenance release requirements and procedures for intended flight
- airworthiness requirements applicable to aircraft category and class or type
- checklist use and procedures
- daily inspection procedures including rectification actions
- flight specific reports including incident reporting
- fuel requirements for day visual flight rules (VFR) flight operation
- interpretation of meteorological and NOTAM information
- local aerodrome requirements
- local weather patterns
- minimum equipment list for applicable aircraft type
- purpose and procedures for accessing and using pre-flight briefing and information systems
- pre- and post-flight planning administration procedures including flight authorisations
- relevant national aeronautical information processing system (NAIPS) and aeronautical information publications
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders
- relevant WHS and environmental procedures and regulations
- safe equipment stowage
- SOPs for category and class or type of aircraft and operator
- take-off and landing performance charts



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 personal PPE currently used in industry

Unit of Competency – <https://training.gov.au/Training/Details/AVIW0029>

Assessment Requirements – <https://training.gov.au/Training/Details/AVIW0029>

AVIW0029 Manage Pre-and Post-Flight Actions

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
1. Complete pre-and post-flight administration	1.1 Pre- and post-flight planning and documentation is completed in accordance with regulatory requirements and/or operations manual				
	1.2 Aircraft take-off and landing performance is calculated in accordance with performance charts				
	1.3 Aircraft weight and balance is confirmed				
	1.4 Pre-and post-flight maintenance release (flight technical log) and flight administration is completed in accordance with regulatory requirements and/or operations manual				
	1.5 Aircraft serviceability is determined by daily inspection, and certification of daily inspection in maintenance release (flight and technical log) is completed in accordance with regulations				



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2. Perform pre- and post-flight actions/ inspections	2.1 Equipment and documentation as required by regulation, is identified and secured in aircraft pre-flight				
	2.2 hazards are identified, risks are assessed, and hazard management is implemented				
	2.3 Internal checks are completed in accordance with approved checklists				
	2.4 External checks are completed in accordance with approved checklists				
	2.5 Flight equipment and documentation are removed from aircraft post-flight				
	2.6 Aircraft is secured in accordance with manufacturer specifications and organisational procedures				
3. Perform and certify daily inspection	3.1 Daily inspection of aircraft is performed in accordance with authorised aviation maintenance systems				
	3.2 Appropriate actions are undertaken to rectify discrepancies				
	3.3 Daily inspection is certified in accordance with regulatory requirements				



AVIY0054 Control Aeroplane on the Ground

Units of Competency

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 (CASA) 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.

Pre-Requisite Unit

Not applicable

Competency Field

Y – Aircraft Operation and Traffic Management

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIY0054>

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 AVIY4001 Control aeroplane on the ground

Links

Companion Volume Implementation guide are found in VET net:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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 (SOPs)
- 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 (ATC) 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) 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 (PPE) conforming to industry and WHS 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
- Civil Aviation Safety Regulation (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 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

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.

Unit of Competency – <https://training.gov.au/Training/Details/AVIY0054>

Assessment Requirements – <https://training.gov.au/Training/Details/AVIY0054>

AVIY0054 Control Aeroplane on the Ground

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
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 ARM/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.				



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Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
2. Taxi Aeroplane continued	2.5 Engine handling and braking on the ground is in accordance with AF/POH				
	2.6 Airfield markings/lights/ signs/ 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 are avoided				
	2.9 Taxi path is inspected when surface conditions are obscured				



AVIY0055 Take-Off Aeroplane

Units of Competency

Application

This unit involves the skills and knowledge required to take off in an aeroplane, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes carrying out pre-take-off procedures, conducting an aeroplane take-off, and performing a rejected take-off procedure.

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

See below

Resource

<https://training.gov.au/Training/Details/AVIY0055>

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 AVIY0002 Take off aeroplane

Links

Companion Volume Implementation guide are found in VET net:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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 (SOPs)
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeroplane aeronautical knowledge
- applying relevant legislation and workplace procedures
- applying take-off procedures in accordance with regulatory requirements
- calculating normal and crosswind take-off and landing performance
- communicating effectively with others
- compensating for the secondary effects of controls
- completing relevant documentation
- complying with air traffic instructions and regulatory requirements
- conducting aeroplane take-offs, including :
 - normal
 - cross wind
- identifying and correctly using equipment required
- identifying surface conditions, obstructions, other crossing traffic on runways and taxiways, or other hazards that might hinder a safe take-off
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- interpreting windsock indications
- maintaining awareness of the circuit traffic situation
- managing take-off emergencies
- 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
- performing minimum length take-off procedure
- performing rejected take-off procedure
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying identified promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- working collaboratively
- 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:

- aeroplane take-off and landing performance calculations and charts
- air traffic requirements
- all pre-take-off and after take-off checks
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- factors affecting directional control of the aeroplane
- factors affecting take-off distance and initial climb performance
- functions and effects of all aeroplane controls
- how to interpret aerodrome charts
- how to interpret windsock indications and how to determine wind direction and speed
- how to obtain or calculate crosswind and down or up wind components
- in a Defence context, relevant Defence Orders and Instructions
- local topographical charts to identify safe areas for engine-failure purposes and noise-abatement considerations
- manufacturer specifications relating to operating the aeroplane
- obstacle clearance requirements
- principles of aerodynamics
- problems that may occur when taking off an aeroplane and appropriate action that should be taken in each case
- procedures for using take-off performance charts
- purpose and functions of aeroplane systems
- relevant sections of CASRs and Civil Aviation Orders
- relevant WHS and environmental procedures and regulations

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.

Unit of competency – <https://training.gov.au/Training/Details/AVIY0055>

Assessment requirements – <https://training.gov.au/Training/Details/AVIY0055>

AVIY0055 Take-Off Aeroplane

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
1. Carry out pre-take-off procedures	1.1 Critical take-off airspeeds, aircraft configuration, and emergency and abnormal procedures for normal and cross-wind- take-offs are correctly identified				
	1.2 Pre-take-off briefing is completed				
	1.3 Approved pre-take off and line up checklists are completed in accordance with flight manual/pilot's operating handbook (POH) or company operations manual.				
	1.4 Correction for existing wind component to the take-off performance is verified and correctly applied.				
	1.5 Runway approach path is visually cleared of conflicting traffic and other hazards prior to lining up for take-off				
	1.6 Aeroplane is aligned with runway centre line in take-off direction				
	1.7 Air traffic control (ATC) clearances are obtained as required				

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
2. Conduct Aeroplane take off	2.1 Take-off power is applied, aeroplane is maintained aligned with center of runway with wings-maintained level and rotated at manufacturer recommended speed to achieve planned climb performance				
	2.2 Aeroplane is configured for nominated climb profile, and tracking on centerline of runway is maintained during take off				
	2.3 Power controls, settings, and instruments during take-off are monitored to ensure all predetermined parameters are achieved and maintained.				
	2.4 Lookout is maintained using a systematic scan techniques at a rate determined by traffic density, visibility and terrain.				
	2.5 Separation with all circuit traffic is maintained				
	2.6 Radiotelephone listening watch is maintained				
	2.7 Local and published noise abatement requirements and curfews are observed				
	2.8 After take-off checks are performed in accordance with approved checklists				
3. Perform rejected take-off	3.1 Requirements to abort/reject take-off is identified				
	3.2 Power is reduced smoothly and promptly				
	3.3 Braking devices are activated				
	3.4 Control is maintained to bring Aeroplane to a safe stop				
	3.5 Associated procedures and/or checklists are initiated and completed				



AVIY0056 Control Aeroplane in Normal Flight

Units of Competency

Application

This unit involves the skills and knowledge required to control an aeroplane in normal flight, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes climbing an aeroplane, maintaining straight and level flight, descending an aeroplane, and turning an aeroplane. It also includes controlling an aeroplane at slow speed, performing circuits and approaches, and complying with airspace requirements.

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

See below

Resource

<https://training.gov.au/Training/Details/AVIY0056>

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 AVIY4003 Control aeroplane in normal flight

Links

Companion Volume Implementation guide are found in VET net:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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 (SOPs)
- adhering to restricted, controlled and other appropriately designated airspace requirements
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeroplane aeronautical knowledge
- applying relevant legislation and workplace procedures
- applying the techniques of straight and level, climbing and descending flight to achieve a consistent traffic pattern and approach to landing
- communicating effectively with others when controlling an aeroplane in normal flight including using an aeronautical radio
- compensating for the secondary effects of controls
- completing relevant documentation
- confirming runway and aerodrome serviceability and availability
- controlling an aeroplane during slow speed flight
- controlling an aeroplane during turning manoeuvres
- determining appropriate runway and circuit procedures
- identifying and correctly using relevant equipment
- identifying geographical features from aerodrome charts, including:
 - aerodromes and landing areas within local area
 - geographical limits
 - geographical limits of flight training areas
 - restricted, controlled and uncontrolled airspace areas
 - state local airspace limits
 - transit route between departure aerodrome and training area
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- maintaining compliance with regulatory requirements
- maintaining separation between aircraft
- 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
- operating safely in the vicinity of local aerodromes and landing areas
- performing circuits and approaches
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- remaining within a designated area while complying with airspace and air traffic requirements



- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- using instruments to monitor aeroplane performance
- working collaboratively with others when controlling an aeroplane in normal flight including using an aeronautical radio
- 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:

- after take-off checks
- aircraft performance
- aircraft systems
- aircraft weight and balance
- airspace cleared procedure to be carried out before all turns
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- cause of and compensation for aileron drag
- circuit patterns and procedures
- contents of the aircraft flight manual (AFM) and pilot's operating handbook (POH)
- dangers associated with mechanical and wake turbulence
- dangers of turbulence and wake turbulence when flying at low speed
- day visual flight rules (VFR) criteria
- effect of angle of bank and load factor on stall speeds
- effect of turning and acceleration on magnetic compass accuracy
- effects and use of carburettor heat or de-icing systems
- effects of carburettor or intake icing
- effects of excessive cooling on engine performance
- effects of flap
- engine considerations during prolonged climbing and descending
- environmental conditions that represent visual meteorological conditions (VMC)
- functions and effects of all aeroplane controls
- go-around procedures from base leg and final approach
- hazards during maximum rate descent
- hazards when performing performance manoeuvres
- in a Defence context, relevant Defence Orders and Instructions
- local area operating procedures
- operation of stall warning devices fitted to aeroplane
- pre-landing checks
- primary effects of controls
- principles of aerodynamics
- procedures for setting power in normally aspirated, turbocharged or supercharged engines



- relationship between angle of bank, load factor and stall speed
- relationship between induced drag and operating at slow speed
- relationship of attitude and power to trim
- relevant sections of aeronautical information package (AIP)
- relevant sections of Civil Aviation Safety Regulations and Orders
- relevant WHS/OHS and environmental procedures and regulations
- requirements and procedures for maximum rate descent
- tendency to under bank in descending turn and over bank in a climbing turn
- theory and application of best rate and angle of climb
- turning using a magnetic compass
- use of autopilot/flight director functions
- use of flap
- use of instruments to monitor aeroplane performance
- use of trim controls.

Assessment Conditions

– see assessment requirements PDF

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 personal protective equipment currently used in industry.

Unit of Competency – <https://training.gov.au/Training/Details/AVIY0056>

Assessment Requirements – <https://training.gov.au/Training/Details/AVIY0056>

AVIY0056 Control Aeroplane in Normal Flight

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
1. Climb Aeroplane	1.1 Adjustments are made to altitude and power to achieve an increase of altitude at normal, maximum rate(VY), maximum angle (VX) and cruise conditions of flight during straight and turning manoeuvres.				
	1.2 Aeroplane is maintained in balanced flight and trimmed.				
	1.3 Aeroplane is levelled off from climb at nominated altitude using standard Aeroplane procedures.				
	1.4 Flight path clearance is ensured				
	1.5 Climb checks are completed				
	1.6 Air Traffic control (ATC) altitude restrictions are observed				
2. Maintain straight and level flight	2.1 Power, altitude and configuration are set to achieve straight and level flight				
	2.2 Aeroplane is maintained in balanced flight and trimmed				
	2.3 Altitude and heading are maintained with tolerances				
	2.4 Flightpath clearance is ensured				

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
3. Descend Aeroplane	3.1 Power, altitude and configuration are set to achieve descent during glide, power- assisted flight and approach profiles				
	3.2 Aeroplane is maintained in balanced flight and trimmed				
	3.3 Aeroplane is levelled from a descent at a normal altitude				
	3.4 Flight path clearance is ensured				
	3.5 ATC altitude restrictions are observed				
	3.6 Aeroplane operating limits are not exceeded during descent				
	3.7 Effects of undercarriage and flaps are managed				
	3.8 Descent checks are completed				
4. Turn Aeroplane	4.1 Airspace cleared procedure is carried out				
	4.2 Heading is altered in balanced flight during level, climbing, descending and gliding manoeuvres and turns are performed at varying rates to achieve specified tracks.				
	4.3 Turn on to nominated heading or geographical feature is achieved				
	4.4 Aeroplane operating limits are maintained during turns				

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
5. Control Aeroplane at slow speed	5.1 Pre-manoevre checks are completed in accordance with operating procedures				
	5.2 Aeroplane is flown at minimum clean approach speed and at minimum landing configuration approach speed as specified in aircraft flight manual (AFM)/Pilot's operating handbook (POH) in balanced flight				
	5.3 Height awareness is maintained during slow speed flight				
	5.4 Positive control responses are implemented and reduced control effectiveness recognised during slow flight manoeuvres				
	5.5 Stall warnings, cautions and indications are monitored during slow speed flight				
	5.6 Recovery to cruise speed is achieved while maintaining height				
6. Perform circuits and approaches	6.1 Traffic patterns are conducted in accordance with aeronautical information package (AIP) procedures appropriate to the Aeroplane type with allowance for wind velocity on all legs of the circuit.				
	6.2 All checks are completed, and radiotelephone procedures are followed				
	6.3 Approach path is appropriately intercepted and maintained in a manner applicable to Aeroplane type, while remaining clear of other traffic.				

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
6. Perform circuits and approaches Continues	6.4 Traffic conflict or adverse flight conditions are recognized when they arise, and a go-around is performed from any position in the traffic pattern.				
	6.5 Right of way rules are applied and complied with				
	6.6 Radio listening watch is maintained in accordance with established procedures				
	6.7 Aeroplane is configured for landing				
7. Comply with airspace requirements	7.1 While Aeroplane is maintained within a specified area, compliance is maintained with air traffic requirements and restricted, controlled and other appropriately designed airspace				
	7.2 Appropriate reactions are made to factors that may affect the safe progress of the flight				
	7.3 Awareness of aeroplane position is maintained using charts and geographical features				
	7.4 Radio listening watch is maintained in accordance with established procedures				
	7.5 Weather condition are monitored, and appropriate action is taken				
	7.6 Local and published noise abatement requirements and curfews are observed.				



AVIY0057 Land Aeroplane

Units of Competency

Application

This unit involves the skills and knowledge required to land an aeroplane in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes conducting aeroplane landings and managing mishandled landings.

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

See below

Resource

<https://training.gov.au/Training/Details/AVIY0057>

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 AVIY4004 Land Aeroplane.

Links

Companion Volume Implementation guide are found in VET net:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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 (SOPs)
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeroplane aeronautical knowledge
- applying relevant legislation and workplace procedures
- calculating landing performance
- carrying out correct procedures in a go-around
- communicating effectively with others including using an aeronautical radio
- compensating for the secondary effect of controls
- completing relevant documentation
- conducting aeroplane crosswind landing procedures, including:
 - verify existing wind conditions, make proper correction for drift, and maintain a precise ground track
 - configure aeroplane for crosswind conditions
 - control aeroplane during transition from final approach to touchdown and during after-landing roll
 - apply crosswind drift corrections during landing and taxi procedures
- conducting aeroplane landing procedures, including:
 - maintaining constant landing position aim point
 - achieving a smooth, positively controlled transition from final approach to touchdown, including control ballooning during flare
 - achieving touchdown at a controlled rate of descent, in the specified touchdown zone within tolerances
 - controlling bouncing after touchdown
 - aligning touchdown with centreline within tolerances
 - ensuring separation is maintained
 - maintaining positive directional control and crosswind correction during after-landing roll
 - using drag and braking devices, as applicable, in such a manner to bring the airplane to a safe stop
 - completing applicable after-landing checklist items in a timely manner
- conducting aeroplane missed approach, including:
 - recognising the conditions when a missed approach should be executed
 - making the decision to execute a missed approach when it is safe to do so
 - making a smooth, positively controlled transition from approach to missed approach, including
 - selecting power, attitude and configuration to safely control aeroplane
 - manoeuvring aeroplane clear of the ground and conducting after take-off procedures
 - making allowance for wind velocity during go-around
 - avoiding wake turbulence



- conducting aeroplane missed landing procedure, including:
 - recognising the conditions when a missed landing should be executed
 - making decision to execute recovery when it is safe to do so
 - making a smooth, positively controlled transition from missed landing to missed approach, including
 - selecting power, attitude and configuration to safely control aeroplane
 - manoeuvring aeroplane clear of the ground and conducting after take-off procedures
 - making allowance for wind velocity during go-around
 - avoiding wake turbulence
- conducting aeroplane short landing procedures, including:
 - landing aeroplane at nominated touchdown point at minimum speed
 - controlling ballooning during flare
 - controlling bouncing after touchdown
 - maintaining direction after touchdown
 - applying maximum braking without locking up wheels
 - stopping aircraft within landing distance available
- exercising sound judgement sufficient to perform landing procedures
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- maintaining compliance with regulatory requirements
- 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
- recognising and responding to conditions leading to a go-around
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment, including trim controls, flaps, carburettor heat and braking devices
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- using instruments to monitor aeroplane performance
- working collaboratively with others when landing aeroplane
- 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:

- aerodynamic forces involved during a flare
- aeroplane limitations
- aeroplane performance
- aeroplane weight and balance
- air traffic procedures
- all required checklist items
- Civil Aviation Safety Authority (CASA) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- causes of aquaplaning and procedures to avoid aquaplaning
- causes of loss of control of aeroplane on landing
- causes of loss of directional control during landing
- circuit and landing procedures
- contents of aircraft flight manual (AFM) and pilot's operating handbook (POH)
- cross wind limits for the aeroplane type flown
- day visual flight rules (VFR) criteria
- effect of wind on landing performance
- environmental conditions that represent visual meteorological conditions (VMC)
- how to calculate a cross wind component
- in a Defence context, relevant Defence Orders and Instructions
- options when local conditions are not suitable for landing
- principles of aerodynamics
- propeller wash, rotor wash and jet blast
- relevant sections of aeronautical information package (AIP)
- relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders
- relevant WHS/OHS and environmental procedures and regulations
- steps for landing an aeroplane in normal headwind and crosswind
- techniques used to land an aeroplane in a cross wind
- touch and go procedures
- typical single-engine aeroplane aircraft systems
- wake turbulence considerations
- windsock and other indicators that are used to determine wind velocity.



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.

Unit of Competency <https://training.gov.au/Training/Details/AVIY0057>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0057>

AVIY0057 Land Aeroplane

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor Only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
1. Conduct Aeroplane landing	1.1 Aeroplane is landed at a controlled rate of descent with alignment above the run way centerline, within a specified area without draft, and directional control is maintained				
	1.2 Existing wind conditions are confirmed, drift corrections are applied, precise ground track is maintained, and Aeroplane is configured for cross-wind landing conditions as required				
	1.3 Ballooning and bouncing are minimized and controlled in accordance with established Aeroplane landing procedures				
	1.4 Positive directional control is maintained, and cross - wind corrections are applied as required during the after-landing roll.				
	1.5 After-landing checks are performed in accordance with approved checklist				
	1.6 Separation with conflicting air and ground traffic is maintained				
	1.7 Runway is vacated when practicable				
	1.8 Aeroplane is stopped safely using drag and/or braking devices within available runway length				
	1.9 Landing clearance is obtained at appropriate airfields				
	1.10 Wake turbulence is avoided				
	1.11 Weather conditions are monitored				

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
2. Manage mishandled landing	2.1 Conditional requirements for conducting a missed approach are recognised				
	2.2 Decision to perform missed approach and subsequent go-around is made when safe landing cannot be achieved				
	2.3 Power, altitude and configuration are selected to safely control Aeroplane				
	2.4 Aeroplane is manoeuvred clear of the ground and after take-off procedures are conducted				
	2.5 Allowance for wind velocity is made during go-around				
	2.6 Wake turbulence is avoided				



AVIY0058 Manage Aircraft Fuel

Units of Competency

Application

This unit involves the skills and knowledge required to manage aircraft fuel, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards. It includes planning fuel requirements, managing the fuel system and refuelling aircraft.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational duties of flight crew and ground personal 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

See below

Resource

<https://training.gov.au/Training/Details/AVIY0058>

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 AVIY4007B Manage aircraft fuel

Links

Companion Volume Implementation guide are found in VET net:

<http://vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=4725260a-Oaf3-4daf-912b-ef1c2f3e5816>



Assessment Requirements

Modification History

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

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 (SOPs)
- applying air safety practices and regulations
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeronautical knowledge
- applying relevant legislation and workplace procedures
- calculating equi time point (ETP) and point of no return (PNR)
- calculating fuel allowances, consumption and endurance
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing safety precautions during aircraft refuelling
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- maintaining compliance with regulatory requirements
- maintaining workplace records relevant to aircraft fuel management
- managing the operation of an aircraft fuel system
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring fuel usage to achieve desired profile, best range or endurance following configuration changes
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- performing fuel quality control checks
- planning aircraft fuel requirements
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recognising deteriorating situations impacting on fuel requirements
- refuelling an aircraft, including:
 - identifying applicable grade of fuel for aircraft type
 - complying with aircraft bonding and earthing requirements
 - implementing fuel loading and unloading procedures
 - ensuring fuel cap security
- undertaking fuel quality checks:
 - operator checks



- reporting and/or rectifying identified promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- working collaboratively with others when managing aircraft fuel
- 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:

- aerodynamic, engine and airframe requirements for aircraft to achieve best range and endurance
- dangers of using the incorrect grade of fuel
- factors affecting fuel consumption
- fire extinguishers that can be used for fuel-related fires, including requirements and how to use them in a fire
- fuel consumption of aircraft at varying power settings
- fuel reserve requirement for aircraft
- hazards that exist when refuelling aircraft and related hazard control procedures and precautions
- how to calculate conversions between imperial and metric measures
- in a Defence context, relevant Defence Orders and Instructions
- limitations on using drum stock fuel
- location of refuelling places
- methods of identifying applicable grade of fuel for aircraft type
- methods of verifying the quantity of fuel on board an aircraft
- minimum fuel requirements for day visual flight rules (VFR) operations
- mixture leaning technique
- operation of the aircraft fuel system
- principles of aircraft fuel systems
- problems that may occur when managing aircraft fuel and appropriate action that should be taken in each case
- procedures for calculating ETP and PNR
- regulations and procedures for refuelling aircraft
- relevant sections of Civil Aviation Safety Regulations (CASAs) and Civil Aviation Orders
- relevant WHS/OHS and environmental procedures and regulations
- variations to planned fuel consumption
- WHS/OHS requirements applicable to aircraft fuelling operations



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.

Unit of Competency <https://training.gov.au/Training/Details/AVIY0058>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0058>

AVIY0058 Manage Aircraft Fuel

Element Elements describe the essential outcome	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.	Evidence to support my achievement of competence		Trainer / Assessor / Instructor only	
		Current and Recent Evidence - including mapping	Historical evidence (more than 2-3 years old) – including mapping	Evidence provided and sighted	Approval date / initial
1. Plan fuel requirements	1.1 Total enroute and reserve fuel requirement is determined in accordance with regulatory requirements				
	1.2 Allowance is made for possible abnormal or emergency situation				
2. Manage Fuel system	2.1 Fuel system, including pumps, engine controls and cross-feed systems are operated in accordance with aircraft flight manual (ARM)/Pilot's operating handbook (POH)				
	2.2 Fuel quantity on-board is verified using two independent methods				
	2.3 Fuel quality checks are completed before flight				
	2.4 Fuel usage and status is monitored throughout flight and fuel log is accurately maintained				
	2.5 Aircraft is configured to achieve desired profile, best range of endurance and operational endurance calculations are revised as required				
	2.6 Work health and safety (WHS) procedures are followed at all times				
	2.7 Potential hazards are anticipated, and precautions are applied				
3. Refuel aircraft	3.1 Aircraft is refueled correctly in accordance with AFM/POH, WHS, regulatory requirements and workplace procedures				
	3.2 Appropriate precautions are taken to ensure the safety of personnel and property during refueling operations				