



THE REDCLIFFE AERO CLUB

Recognition of Prior Learning (RPL)

Evidence Portfolio Part 3 (PPL & CPL)

Student Name:

Student No.:

AVI20222 Diploma of Aviation (Commercial Pilot Licence – Aeroplane)



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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
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					



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



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



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.



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				

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. 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



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 Bake 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.				

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



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



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-manoeuve 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.



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 Mange 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



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				



AVIF0026 Implement Aviation Risk Management Processes

Units of Competency

Application

This unit involves the skills and knowledge required to implement aviation risk management processes, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes identifying, controlling, monitoring and reviewing the effectiveness of risk management processes as part of a safety management system (SMS). Work involves managing the effects on objectives using an SMS within a variety of operational contexts within the Australian aviation industry.

This unit addresses aviation non- technical skill requirements (mental, social and personal-management abilities) related to safety management duties that complement the technical skills of aviation personnel and contributes to safe and effective performance in complex aviation operational environments.

Work is performed independently or under limited supervision as a single operator or within a team environment.

Work is performed independently or under limited supervision as 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/AVIF0026>

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 AVIF0004 Implement aviation risk management processes.



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:

- applying precautions and required actions to minimise and control the effects of risk when carrying out own work functions
- communicating effectively with others
- determining appropriate risk levels and control methods through effective decision making
- developing a well-researched, clear, and comprehensive risk management plan
- identifying risk controls
- implementing risk management processes to safely achieve operational objectives
- reading and comprehending a variety of safety/technical texts
- researching and collecting data to monitor and evaluate risks
- solving problems to appropriately address identified risks
- using at least one of the following organisational methods to identify aviation hazards:
 - brainstorming
 - hazard reporting
 - historical occurrence data
 - internal/external safety reviews
 - monitoring operational activities
 - reviewing standards, procedures, and systems
 - surveys and questionnaires
- working collaboratively with others
- writing, editing and proofreading documents to ensure clarity of meaning, accuracy, and consistency of information.

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:

- Australian and international risk management standards
- aviation hazard identification methods
- aviation risks, including:
 - regulatory
 - hardware
 - environmental
 - personnel
- likelihood criteria for risk
- hierarchy of risk control, including:
 - elimination
 - substitution
 - engineered controls
 - administrative controls
 - personal protective equipment (PPE)
- consequences of risk criteria
- hierarchy of risk control methods



- key provisions of relevant national and state/territory legislation, regulations and codes of practice that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - privacy
 - environmental issues
 - work health and safety (WHS) and organisational policies and procedures relating to risk management processes and strategies, such as Defence Orders, Instructions and Publications
 - auditing requirements relating to risk management
 - safety management systems (SMSs), including Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders
- risk assessment and analysis techniques and tools
- risk management processes within an aviation SMS.

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/AVIF0026>

Assessment Requirements <https://training.gov.au/Training/Details/AVIF0026>

AVIF0026 Implement Aviation Risk Management Processes

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. Identify aviation hazards and assess risk.	1.1 Hazards are identified through organisational methods in accordance with workplace standards				
	1.2 Stakeholders are identified and involved in the risk assessment process				
	1.3 Likelihood and consequence of hazards are assessed and ranked against established organisational risk assessment criteria				
2. Identify risk controls	2.1 Controls that reduce risk to as low as responsibility practicable (ALARP) are identified in accordance with workplace policies and procedures				
	2.2 Risk management action plan is developed and communicated to all stakeholders				
	2.3 Risk management documentation is completed and checked for accuracy				
3. Control Aviation risk	3.1 Risk Control selections are determined with consideration of effect on stakeholders				
	3.2 Risk control methods are communicated to stakeholders				
	3.3 Selected risk control methods/s is implemented, monitored and evaluated				
4. Monitor and review effectiveness of risk control	4.1 Implemented risk controls are regularly monitored against measures of success / effectiveness				
	4.2 Assistance is provided to review risk in own era of operation				
	4.3 Management of risk is continuously monitored and reviewed in own area of operation				
	4.4 Review results are used to improve risk control				



AVIF0027 Implement Aviation Fatigue Risk Management Processes

Units of Competency

Application

This unit involves the skills and knowledge required to implement aviation risk management processes, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes identifying, controlling, monitoring and reviewing the effectiveness of fatigue risk management processes as part of a safety management system (SMS).

Work involves managing the effects on objectives using an SMS within a variety of operational contexts within the Australian Aviation Industry.

This unit addresses aviation non- technical skill requirements (mental, social and personal-management abilities) related to safety management duties that complement the technical skills of aviation personnel and contributes to safe and effective performance in complex aviation operational environments.

Work is performed independently or under limited supervision as a single operator or within a team environment.

Work is performed independently or under limited supervision as 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/AVIF0027>

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 AVIF0005 Implement aviation fatigue risk management processes.



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:

- applying active listening techniques to others in the operational environment
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeronautical knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others
- delegating duties and tasks
- determining and implementing appropriate countermeasures
- giving and receiving instructions related to implementing threat and error management (TEM) strategies
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting relevant instructions, regulations, procedures and information
- maintaining situational awareness
- making timely operational decisions
- modifying activities depending on operational contingencies, risk levels and environments
- operating and adapting to differences in communications equipment in accordance with standard operating procedures (SOPs)
- planning own work, predicting consequences and identifying improvements
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- responding to feedback from other flight or ground crew
- reporting and rectifying identified problems, faults or malfunctions promptly in accordance with workplace procedures
- supervising others when implementing TEM strategies
- 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:

- application of situational awareness to identifying real or potential environmental or operational threats to aviation safety
- aspects of multi-crew operations that can prevent an undesired aircraft state
- effective communication during normal, abnormal and emergency situations
- leadership and supervision strategies
- recognition techniques and management strategies for:
 - actual and potential threats
 - actual and potential errors
 - undesired aircraft states
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders related to TEM
- removing and mitigating errors
- removing and mitigating threats
- safety philosophies



- task management, including:
 - workload organisation and priority setting to ensure optimum safe outcome of a flight
 - event planning to occur in a logical and sequential manner
 - anticipating events to ensure sufficient opportunity is available for completion
 - using technology to reduce workload and improve cognitive and manipulative activities
 - task prioritisation and protection while filtering and managing real time information
- TEM model, including:
 - principles and components of TEM
 - definition of threats
 - definition of errors
 - undesired aircraft states
 - TEM countermeasures.

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 (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIF0027>

Assessment Requirements <https://training.gov.au/Training/Details/AVIF0027>

AVIF0027 Implement Aviation Fatigue Risk Management Processes

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. Identify fatigue hazards and assess risk	1.1 Fatigue hazards are identified through organisational methods in accordance with workplace standards				
	1.2 Stakeholders are identified and involved in the risk assessment process				
	1.3 Likelihood and consequence of fatigue hazards are assessed and ranked against established organisational risk assessment criteria				
2. Identify fatigue risk controls	2.1 Controls that reduce fatigue risk to as low as reasonably practicable (ALARP) are identified in accordance with workplace policies and procedures				
	2.2 Fatigue risk management documentation is completed and checked for accuracy				
	2.3 Fatigue risk management action plan is developed and communicated to all stakeholders				
3. Control fatigue risk	3.1 Control selection is determined with consideration of effect on stakeholders				
	3.2 Fatigue risk control methods are communicated to stakeholders				
	3.3 Selected control method is implemented, monitored and evaluated				

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
4. Monitor and review effectiveness of fatigue risk control	4.1 Implemented risk controls are regularly monitored against measures of success / effectiveness				
	4.2 Assistance is provided to review fatigue risk in own area of operation				
	4.3 Management of fatigue risk is continuously monitored and reviewed in own area of operation				
	4.4 Review results are used to improve fatigue risk control				



AVIF0029 Implement Threat and Error Management Strategies

Units of Competency

Application

This unit involves the skills and knowledge required to implement threat and error management (TEM) Strategies in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes recognising and managing actual and potential threats, recognising and managing actual and potential errors, and managing undesired aircraft states.

This unit addresses aviation non-technical skill requirements (mental, social and personal-management abilities) of flight crew and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of 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

F – Safety

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIF0029>

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 AVIF0007 Implement threat and error management strategies.

Links

Companion Volume Implementation guide are found in VET net:

<https://training.gov.au/Training/Details/AVIF0029>



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:

- applying active listening techniques to others in the operational environment
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeronautical knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others
- delegating duties and tasks
- determining and implementing appropriate countermeasures
- giving and receiving instructions related to implementing threat and error management (TEM) strategies
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting relevant instructions, regulations, procedures and information
- maintaining situational awareness
- making timely operational decisions
- modifying activities depending on operational contingencies, risk levels and environments
- operating and adapting to differences in communications equipment in accordance with standard operating procedures (SOPs)
- planning own work, predicting consequences and identifying improvements
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- responding to feedback from other flight or ground crew
- reporting and rectifying identified problems, faults or malfunctions promptly in accordance with workplace procedures
- supervising others when implementing TEM strategies
- 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:

- application of situational awareness to identifying real or potential environmental or operational threats to aviation safety
- aspects of multi-crew operations that can prevent an undesired aircraft state
- effective communication during normal, abnormal and emergency situations
- leadership and supervision strategies
- recognition techniques and management strategies for:
 - actual and potential threats
 - actual and potential errors
 - undesired aircraft states
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Order related to TEM
 - removing and mitigating errors
 - removing and mitigating threats
 - safety philosophies



- task management, including:
 - workload organisation and priority setting to ensure optimum safe outcome of a flight
 - event planning to occur in a logical and sequential manner
 - anticipating events to ensure sufficient opportunity is available for completion
 - using technology to reduce workload and improve cognitive and manipulative activities
 - tasks prioritisation and protection while filtering and managing real time information
- TEM model, including:
 - principles and components of TEM
 - definition of threats
 - definition of errors
 - undesired aircraft states
 - TEM countermeasures.

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 protective equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIF0029>

Assessment Requirements <https://training.gov.au/Training/Details/AVIF0029>

AVIF0029 Implement Threat and Error Management Strategies

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. Recognise and manage actual and potential threats	1.1 Potential environmental or operational threats likely to affect flight safety are identified				
	1.2 Actual environmental or operational threats that affect flight safety are identified				
	1.3 Competing operational priorities and task demands that may represent a threat to flight safety are identified				
	1.4 Countermeasures to manage threats are identified and implemented				
	1.5 Flight progress and effect of countermeasures are monitored and assessed to ensure a safe outcome				
	1.6 Alternative countermeasures are identified and implement, and effectiveness of countermeasures is re-evaluated for effectiveness				
2. Recognise and manage actual and potential errors	2.1 Checklists and standard operating procedures (SOPs) are implemented to prevent aircraft handling, procedural or communication errors				
	2.2 Committed errors are identified and responded to before aircraft enters an undesired state				
	2.3 Aircraft systems are monitored using a systematic scan technique to collect and analyse flight information for potential or actual error recognition purposes				
	2.4 Flight operating environment is monitored to collect and analyse flight information for potential or actual error recognition purposes				

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. Recognise and manage actual and potential errors (continued)	2.5 Individual or team performance is monitored to recognise potential or actual error concurrence				
	2.6 Countermeasure implementation and supervision are undertaken to prevent errors before aircraft enters an undesired state				
	2.7 Countermeasures implementation and supervision are undertaken to correct errors after aircraft enters an undesired state				
3. Recognise and manage undesired aircraft states	3.1 Undesired aircraft states are recognised				
	3.2 Individual and team tasks are prioritised to ensure an undesired aircraft state is managed effectively				
	3.3 Corrective actions to recover from an undesired aircraft state are applied in a safe and timely manner				
	3.4 Undesired aircraft states are reported and recorded as required in accordance with applicable workplace procedures				



AVIF0030 Manage Safe Flight Operations

Unit of Competency

Application

This unit involves the skills and knowledge required to implement aviation risk management processes, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes maintaining an effective lookout, maintaining situational awareness, and assessing situations and making decisions. It also includes setting priorities, managing tasks and maintaining effective communications.

This unit addresses aviation non-technical skill requirements (mental, social and personal-management abilities) for flight crew and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of 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

F – Safety Management

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIF0030>

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 AVIF0008 Manage safe flight operations.

Links

Companion Volume Implementation guide are found in VET net:

<https://training.gov.au/Training/Details/AVIF0030>



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 responsibility for flight outcomes
- accepting responsibility for own performance
- applying relevant aeronautical knowledge
- implementing work health and safety (WHS) procedures and relevant regulations
- managing and mitigating risk
- managing contingency flight operations, including:
 - abnormal situations
 - emergency conditions
- monitoring flight path, aircraft configuration and systems to achieve desired performance using a systematic scan technique
- operating effectively as a crew member
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- responding appropriately to cultural differences in the workplace
- selecting and using appropriate instruments, displays, communications equipment and aids
- taking initiative and responding to changing conditions
- using appropriate normal, abnormal and emergency aviation terminology.

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:

- crew coordination, including:
 - basic principles of crew coordination
 - verbal and non-verbal communication factors
 - barriers to communication
 - listening skills
 - assertion skills
 - factors affecting decision-making processes
 - communication, including:
 - attitude
 - personality
 - judgement
 - leadership style
 - leadership qualities
 - poor crew coordination factors+
- effective decision-making processes, including:
 - identifying problems and causal factors
 - assessing component parts systematically and logically
 - employing analytical techniques to identify solutions and consider the value and implications of each
 - generating solution and/or alternative courses of action
 - assessing alternative solutions and risks with other flight crew members
 - determining course of action
 - communicating decision and delegate tasks to flight crew
 - monitoring progress against agreed plan
 - evaluating decisions in accordance with changing circumstances
 - ensuring decision making is improvement-focused and directed towards achieving optimum outcomes

- fatigue risk management, including:
 - proactive processes
 - predictive
 - reactive
- flight rules, including:
 - documentation
 - aircraft nationality and registration
 - airworthiness of aircraft
 - personnel licencing
 - rules of the air
 - procedures for air navigation
 - air traffic services
 - aeronautical information service
 - aerodromes
 - facilitation
 - search and rescue
 - security
 - aircraft accidents and incidents – crew responsibilities
 - air service operations
- judgment and decision making, including:
 - pilot judgment concepts:
 - types of judgment
 - motor skills and human factors
 - aeronautical decision making:
 - decision-making concepts
 - pilot responsibilities
 - behavioural aspects
 - identification of hazardous aircraft attitudes:
 - physical factors
 - psychological factors
 - social influences and interface between people
 - pilot judgment awareness:
 - risk assessment
 - cockpit stress management
 - applying decision-making concepts:
 - practical application
 - managing resources
 - safety awareness
- task management, including:
 - workload organisation and priority setting to ensure optimum safe flight outcome
 - event planning, in a logical and sequential manner
 - anticipating events to ensure sufficient opportunity is available for completion
 - using technology to reduce workload and improve cognitive and manipulative activities
 - task prioritisation and protection while filtering and managing real time information.



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 protective equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIF0030>

Assessment Requirements <https://training.gov.au/Training/Details/AVIF0030>

AVIF0030 Manage Safe Flight Operations

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. Maintain effective lookout	1.1 Systematic visual scan techniques are applied at a rate determined by traffic density visibility and terrain to maintain traffic separation				
	1.2 Radio listening watch is maintained, and transmissions are interpreted to determine traffic location and intention				
	1.3 Airspace-cleared procedures are performed before commencing any manoeuvre				
2. Maintain situational awareness	2.1 All aircraft systems are monitored using a systematic scan technique				
	2.2 Information is collected to facilitate ongoing system management				
	2.3 Flight environment is monitored for deviations from planned operations				
	2.4 flight environment information is collected to update planned operations				
3. Assess situations and make decisions	3.1 Problems affecting flight performance are identified and analysed				
	3.2 Potential solutions to flight performance problems are identified				
	3.3 Potential solutions and risks are assessed				
	3.4 Course of action is determined and communicated to flight crew, passengers and/or other personnel as required				
	3.5 Tasks are allocated and actioned to implement optimal course of action documents				
	3.6 Tasks are monitored for progress against determined course of action				
	3.7 Plan is re-evaluated as required to achieve optimal outcomes				

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
4. Set priorities and managing tasks	4.1 Tasks workload and priorities are organised to ensure optimum outcome of the flight				
	4.2 Events and tasks are planned to occur sequentially				
	4.3 Events and tasks are anticipated to ensure sufficient opportunity for completion				
	4.4 Technology is used to reduce workload and improve cognitive and manipulative activities				
5. Maintain effective communication and interpersonal relationships	5.1 Effective and efficient communication and interpersonal relationships are established and maintained with all stakeholders to ensure optimum flight outcome.				
	5.2 Objectives are defined and explained to stakeholders				
	5.3 Appropriate levels of assertiveness are applied that ensure the optimum completion of a flight				



AVIF0035 Manage Human Factors in Aviation Operations

Units of Competency

Application

This unit involves the skills and knowledge required to implement aviation risk management processes, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes managing personal performance and communicating effectively within an aviation environment.

This unit addresses aviation non-technical skill requirements (mental, social and personal-management abilities) related to safety management duties of aviation personnel and contributes to safe and effective performance in complex aviation operational environments.

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

Work is performed independently or under limited supervision as a single operator or within a team environment.

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/AVIF0035>

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 AVIF0014 Manage human factors in aviation operations.



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:

- applying effective listening techniques
- applying effective questioning techniques to obtain information and clarify information while communicating with others
- applying effective verbal and non-verbal communication techniques
- identifying symptoms of deterioration in own physiological condition that might endanger the safety of aviation operations and taking appropriate corrective action
- identifying symptoms of deterioration in own psychological condition that might endanger safety of aviation operations and taking appropriate corrective action
- implementing contingency plans
- maintaining compliance with relevant regulatory requirements, including avoiding alcohol and drugs before and when conducting aviation operations
- managing and controlling individual symptoms of stress before and when conducting aviation operations
- managing aspects of lifestyle that may impact upon personal performance
- managing and monitoring own physical performance
- managing and monitoring own psychological performance
- modifying activities depending on workplace contingencies, situations and environments
- reading, interpreting and following relevant instructions, regulations, procedures, information and signs
- reporting and/or rectifying problems, faults or malfunctions promptly in accordance with workplace procedures
- responding appropriately to cultural differences in the workplace
- 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:

- aspects of lifestyle that may adversely influence personal physiological condition
- aspects of lifestyle that may adversely influence personal psychological condition
- crew coordination, including:
 - basic principles of crew coordination
 - verbal and non-verbal communication factors
 - barriers to communication
 - listening skills
 - assertion skills
 - factors affecting decision-making processes
 - poor crew coordination factors
- communication, including:
 - attitude
 - personality
 - judgement
 - leadership style
 - leadership qualities



- effects of stress on personal performance and ways of managing and controlling the various stressors that may impact on aviation operations, including:
 - concepts of fatigue
 - environmental stress symptoms, causes and effects
 - ergonomics of control systems and instruments
 - principles of stress management
 - short and long-term stressor effects on performance
 - stress and arousal interaction
- fitness for aviation operations relevant to own role, including:
 - basic health
 - health and fitness
 - alcohol
 - drugs
 - blood donations
 - hyperventilation
 - atmospheric pressure changes
 - anatomy of the ear
 - vision, spatial disorientation and illusions
 - motion sickness
 - acceleration 'g' effects
 - toxic hazards
 - the atmosphere and associated problems
 - hypoxia
 - human factor considerations
- human factors that may influence personal performance during aviation operations
 - relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders related to human factors and human performance
 - relevant work health and safety (WHS) procedures and regulations
- aviation operations:
 - flight operations
 - flight support operations
 - ground operations
 - multi-crew
 - single pilot

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 protective equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIF0035>

Assessment Requirements <https://training.gov.au/Training/Details/AVIF0035>



AVIY0035 Manage Human Factors in Aviation Operations

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 personal performance	1.1 Pre- and post-operational personal condition is managed to ensure safe and effective performance				
	1.2 Individual performance when conducting aviation operations is monitored against workplace standards, procedures and requirements				
	1.3 Degradation of physiological condition is recognised and appropriate strategies are implemented to ensure safe outcome of aviation operations				
	1.4 Degradation of psychological condition is recognised and appropriate strategies are implemented to ensure safe outcome of aviation operations				
	1.5 Sources of stress are identified and managed to maintain a safe aviation operating environment				
	1.6 Limitations to personal performance are communicated to crew/team to maintain a safe aviation operating environment				

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. Communicate effectively within an aviation environment	2.1 Effective listening skills are applied				
	2.2 Questions are used to gain additional information				
	2.3 Information received is clarified/confirmed, interpreted and accurately communicated or reported with due observation of ethics and protocols required of the operational environment				
	2.4 Communication is undertaken in varying situations with culturally diverse, familiar and unfamiliar individuals, teams and crews				
	2.5 Appropriate protocols and procedures are followed when using communications systems during routine and contingency aviation operations				
	2.6 Responses are sought and provided to others in a timely manner				
	2.7 Countermeasure implementation and supervision are undertaken to correct errors after aircraft enters an undesired state				



AVIH0010 Plan a Flight Under Visual Flight Rules

Units of Competency

Application

This unit involves the skills and knowledge required to implement aviation risk management processes, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes determining aircraft VFR flight requirements, obtaining and using operational documents, preparing VFR flight plans, making flight notifications and programming navigation systems.

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

Operations are conducted as part of 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

H – Route planning and Navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIH0010>

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 AVIH0002 Plan a flight under visual flight rules.



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:

- 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 aeronautical knowledge
- applying relevant legislation and workplace procedures
- calculating fuel requirements
- communicating effectively with others
- completing relevant documentation
- determining alternate aerodrome requirements and suitability for a visual flight to a specified destination given relevant information, including Notice to Airmen (NOTAM)
- determining currency of operational documents
- determining fuel quantity required for a visual flight
- determining holding requirements due to weather, traffic or traffic advisory
- determining meteorological forecasts required for a visual flight
- determining operational requirements
- determining whether a flight should proceed based on available meteorological forecasts
- extracting and applying relevant information from operational documents
- identifying and correctly using equipment required when planning a flight under visual flight rules (VFR)
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting meteorological forecasts
- interpreting navigation charts
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying problems, faults or malfunctions promptly in accordance with workplace procedures
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS/OHS standards
- selecting suitable navigation aids/systems
- 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:

- aerodrome and enroute holding procedures
- aircraft fuel planning, including holding, alternate, fixed reserve and usage rates
- aircraft loading calculations and planning factors, including:
 - arm, moment, datum, station and index unit
 - centre of gravity and limitations
 - empty weight, zero fuel weight (ZFW) and ramp weight
 - mean aerodynamic chord (MAC)
 - maximum take-off and landing weights
- airspace requirements and procedures under VFR conditions
- basic and general meteorological considerations and requirements for VFR flight



- basic meteorology, including:
 - local weather
 - forecasts and reports
 - observations
- calculating maximum structural take-off and landing weights from performance charts
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge relevant to visual flight rules
- charts and publications, including:
 - aeronautical information publication (AIP) visual chart types
 - how to decode chart symbols
 - how to interpret topographic detail
 - how to estimate, measure and plot positions and distances on visual charts
 - how to describe map projections used in aviation
 - how to describe methods of representing scale
- computations and conversions of navigation data, including:
 - airspeed
 - ground speed
 - time
 - distance
 - air temperatures and pressure heights
 - bearings and tracks
- concepts of time, including:
 - coordinated universal (UTC), local mean, local standard and local summer
 - determine civil twilight
 - time conversions
 - daylight timing factors
 - effects of earth rotation and revolution around the sun
 - effects of changes in longitude on local mean time
- critical point and point of no return (PNR)
- density height calculations
- documents required to be carried on a visual flight
- equi-time point (ETP) and PNR diversion requirements
- factors affecting en route performance, range and endurance
- flight planning preparation, including:
 - visual chart selection
 - mandatory briefing requirements
 - weather services available
 - requirements and instructions for VFR flight notification
- general meteorology concepts, including:
 - atmospheric composition
 - atmospheric stability
 - heat
 - temperature pressure
 - humidity
 - clouds and precipitation
 - visibility
 - wind
 - air masses and fronts
 - synoptic meteorology
 - climatology
 - weather services and information
 - flight considerations



- how to determine climb, cruise and descent performance, including:
 - time, speed, distance and fuel flow/quantity
 - appropriate engine settings
 - rates of climb/descent
 - maximum aircraft range and endurance
- icing conditions and hazards
- limit of VFR operations in single-engine or multi-engine aircraft
- limitations and errors of navigational aids and systems
- flight plan preparation
- VFR cruising levels, selection and hazards
- VFR route planning requirements
- pilot medical fitness and qualifications necessary for visual flight
- pilot navigation principles, including:
 - map reading
 - chart orientation
 - map to ground and ground to map
 - position lines to establish ground speed, track error and position fix
 - ground feature selection to establish position
 - chart preparation and selection
 - determine visual flight navigation information
- privileges of the VFR rating
- principles of navigation:
 - forms of the earth
 - procedures for flight plan amendments and revised estimates for a visual flight
 - relevant WHS and environmental procedures and regulations
 - relevant sections of CASRs and Civil Aviation Orders
 - requirements for an alternate aerodrome
 - requirements for in-flight progress reports
 - requirements for submission of flight notification and search and rescue watch (SARWATCH) times
 - specification of aircraft electrical lighting, radio communication and navigation equipment required for visual flight
 - specification of aircraft flight instruments required for visual flight
 - speed restrictions for visual flight
 - usage of 2D radio navigation aids for visual flight navigation
 - use of a navigational computer
 - validity of a given meteorological forecast for a visual flight
 - visual and instrument flight rules and procedures
 - weight and balance calculations



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.

- Where this unit is used in the context of a commercial pilot licence [CPL(A)] the following operational knowledge must be assessed:
 - aerodromes and aeroplane landing areas (ALAs)
 - climb, cruise and descent performance
 - fuel units.
- Where this unit is used in the context of a commercial pilot licence helicopter [CPL(H)] the following operational knowledge must be assessed:
 - limitations
 - helicopter landing sites (HLS)
 - take-off and landing weight
 - hover performance
 - forward climb performance
 - cruise performance
 - weight and balance.
- 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 (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIH0010>

Assessment Requirements <https://training.gov.au/Training/Details/AVIH0010>

AVIH0010 Plan a Flight Under Visual Flight Rules

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. Determine aircraft meets requirements for VFR flight	1.1 Aircraft requirements for VFR flight are determined				
	1.2 Hazards are identified, risks are assessed, and hazard management implemented				
	1.3 Flight and navigation instruments, minimum electrical lighting, navigation equipment and any other requirements fitted to aircraft are checked to ensure they are suitable and serviceable for VFR flight				
2. Obtain and use operational documents	2.1 Operational documents applicable to the flight are obtained and checked for currency				
	2.2 Applicable information contained in documents for flight planning and management is interpreted and applied				
	2.3 Documents required for the flight are stowed and their accessibility for the pilot during flight is ensured				
3. Prepare flight plan for VFR flight	3.1 Charts suitable for intended VFR flight are selected and prepared				
	3.2 Applicable information to prepare a flight plan that details tracks, distances, times, altitudes to be flown and fuel requirements to reach destination are obtained, analysed and applied				
	3.3 Meteorological, airways facilities, aerodrome and Notice to Airmen (NOTAM) information applicable to planning and conducting a flight is obtained, interpreted and applied				
	3.4 Routes to optimise options in an engine failure are planned				

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
4. Determine operational requirements	4.1 Suitability of aerodrome lighting for night operations is determined				
	4.2 Curfew requirements are complied with				
	4.3 Duration of flight is determined				
	4.4 Holding, alternate and reserve fuel requirements due to weather, navigation aid availability and aerodrome lighting are determined in accordance with operational requirements				
	4.5 Total fuel requirements are calculated				
5. Make flight notification	5.1 Flight notification is prepared for planned VFR flight				
	5.2 Completed flight notification is submitted				
	5.3 Flight notification acceptance is confirmed				
6. Program navigation system	6.1 Data for transfer to approved airborne navigation system is prepared				
	6.2 Navigation data is loaded and checked				



AVIH0014 Navigate Aircraft Under Visual Flight Rules

Units of Competency

Application

This unit involves the skills and knowledge required to implement aviation risk management processes, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes preparing navigation documents and flight plan, complying with airspace procedures and conducting departure procedures. It also includes navigating aircraft en route, navigating at low level and in reduced visibility, and performing lost procedures. It also includes performing diversion procedures, using instrument navigation systems and executing arrival procedures. This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to route planning and navigation 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

H – Route planning and Navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIH0014>

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 AVIH0002 Plan a flight under visual flight rules.



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:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- adjusting aircraft performance to achieve desired timings
- 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 distance and rate of closure rates to/from ground features
- calculating fuel endurance
- carrying out dead reckoning (DR) navigation techniques
- communicating effectively with others
- completing relevant documentation
- determining dead reckoned position
- fixing aircraft position
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- maintaining compliance with regulatory requirements
- maintaining construction, communication and execution of a traffic deconfliction plan
- maintaining navigation logs
- 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 diversion procedure
- planning applicable altitudes/flight levels and tracking tolerances to avoid controlled airspace
- prioritising workload and flight navigation tasks
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recognising significant variances from forecast meteorological conditions and taking appropriate actions, including issuing an air report (AIREP)
- reporting and/or rectifying problems, faults or malfunctions promptly in accordance workplace procedures
- selecting and using appropriate navigational instrument systems and aids
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- sourcing and interpreting aviation weather forecast products and services appropriate to flight planning and navigation procedures
- working systematically with required attention to detail without injuring 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:

- air navigation techniques
- aircraft fuel usage rates
- allowances for changed visual aspects of ground features at low level
- arrival procedures within visual meteorological conditions (VMC)
- basic global navigation satellite system (GNSS) principles, including:
 - characteristics of different chart types
 - aeronautical information publication (AIP) visual charts
 - chart symbology
 - topographic details
 - scale representation
 - tracks, distances and rhumb lines
 - plotting positions:
 - latitude and longitude
 - bearing and distance
 - map projections
- chart reading techniques
- circuit and circuit joining procedures
- computations and conversions, including:
 - ground speed, distance and fuel usage
 - airspeed, air temperature and height
 - determine wind speed and velocity
 - rates/gradients of climb and descent
 - top of climb (TOPC) and top of descent (TOPD) calculations
- controlled airspace requirements
- critical point and point of no return
- DR navigation techniques
- departure procedures within VMC
- diversion considerations and procedures
- en route GNSS navigation principles
- en route navigation techniques
- factors affecting en route performance, range and endurance
- featureless terrain and extended over-water flight navigation techniques
- flight planning requirements
- identification by shape, dimensions, contrast and colour, and uniqueness of ground features
- identification of control area (CTA), control zone (CTR), and prohibited, restricted and danger areas
- in an Australian Defence Force (ADF) context, relevant Defence Orders and Instructions
- limitations of navigation aids/systems
- low level and reduced visibility navigation techniques
- maximum payload and minimum fuel operations
- pilot navigation principles, including:
 - map to ground
 - ground to map
 - position lines
 - ground feature selection
 - chart selection and preparation
 - track made good (TMG)
 - track drift
 - estimated time of arrival (ETA) calculation methods



- potential impacts of specific weather phenomena on aviation operations
- principles of operation of navigation aids and systems
- procedures for requesting clearances from and into controlled airspace
- radio navigation aids, including:
 - identification by frequency information
 - extracting aid information from publications
 - aggregating errors and scalloping
 - establishing position lines
 - station homing and station passage
 - establishing position fixes
- relevant WHS/OHS and environmental procedures and regulations
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders related to visual flight rule (VFR) navigation
- time definitions and application to air navigation, including:
 - local mean time
 - coordinated universal time (UTC)
 - local (standard) time
 - local summertime
 - zone conversion
 - daylight time calculations
- traffic rules and procedures
- use of a navigational computer

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/AVIH0014>

Assessment Requirements <https://training.gov.au/Training/Details/AVIH0014>

AVIH0014 Navigate Aircraft Under Visual Flight Rules

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. Prepare navigation documents and flight plan	1.1 Suitable navigation charts for intended flight are selected and prepared				
	1.2 Applicable information is obtained, analysed and applied to produce a flight plan that details tracks, distances, times and fuel requirements to reach a destination				
	1.3 Pre-flight planning is used to minimise in-flight navigational work load				
	1.4 Applicable VFR are applied to current and forecast operating conditions to determine whether planned flight can proceed				
	1.5 Hazards to navigation are marked on charts as required				
2. Comply with airspace procedures	2.1 Applicable flight airspace restrictions and dimensions are identified				
	2.2 Air traffic clearances are obtained and compliance with them is maintained				
	2.3 Traffic, terrain and airspace separation criteria is maintained in accordance with VFR				
3. Conduct departure procedures	3.1 Pre-flight planning and cockpit organisation are conducted to ensure charts, documentation and navigational equipment are accessible from the control seat				
	3.2 Departure administration and communication is conducted				
	3.3 Track is intercepted within five nautical miles (nm) of airfield and departure time is recorded or alternative procedures are applied as required				
	3.4 Orientation is always maintained				

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. Conduct departure procedures continued	3.5 Priority is given to controlling aircraft before conducting navigation administration or communication				
	3.6 Lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility and terrain				
	3.7 Local and published noise abatement requirements and curfews are observed				
4. Navigate aircraft en route	4.1 Planned route is maintained in accordance with VFR				
	4.2 In-flight documentation and communication is completed				
	4.3 Waypoint and/or destination estimated time of arrival (ETA) are checked and revised as required				
	4.4 Search and rescue times (SARTIME) awareness is maintained and revised based on destination ETA calculations				
	4.5 Fuel consumption is monitored and reserves revised				
	4.6 Pre-descent or navigation turning point checks are executed				
	4.7 Appropriate techniques to obtain a positive navigation fix at suitable intervals are used				
	4.8 Route, en route terrain, en route and destination weather awareness is maintained and appropriate courses of action are implemented in accordance with changing weather conditions				

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
4. Navigate aircraft en route continued	4.9 Lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility and terrain				
	4.10 Aircraft is configured as required for turbulent, holding and maximum aircraft range based on environmental and operational conditions				
	4.11 Aircraft systems, fuel and engine warnings, cautions and indicators are monitored to ensure aircraft is operated to achieve flight plan objectives				
5. Navigate at low level and in reduced visibility	5.1 Compliance with VFR is maintained during navigation at low level or in reduced visibility				
	5.2 Pre-descent and/or navigation turning point checks are executed in accordance with regulatory requirements				
	5.3 Planned route is maintained in accordance with regulatory requirements and procedures				
	5.4 In-flight documentation is completed				
	5.5 Waypoint and/or destination ETA are checked and revised as required				
	5.6 Aircraft is operated and configured to maintain minimum height above ground level (AGL) and terrain separation and remaining within visual meteorological conditions (VMC)				
	5.7 Lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility and terrain				
	5.8 Hazards and threats to low flying navigation are identified and risk controls are implemented				

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. Navigate at low level and in reduced visibility continued	5.9 Effects of wind velocity, false horizons, rising ground, adverse environmental conditions and mountainous terrain are managed, and contingency actions are planned as required				
	5.10 Aircraft is configured as required for reduced visibility and low cloud base environmental and operational conditions				
	5.11 Situational awareness is maintained at all times				
6. Perform lost procedures	6.1 Positional uncertainty is identified and recognised				
	6.2 Position is fixed and new track to destination attainable within limits of fuel and daylight is determined using recognised methods				
	6.3 Track to destination is re-established or replanned with consideration of fuel usage and reserves				
	6.4 Waypoint and/or destination ETA are checked and revised as required				
	6.5 Radio, navigation aids, transponder and air traffic control (ATC) services are used for assistance				
	6.6 A timely precautionary search and landing is planned for possible circumstances of being lost or having no fuel or no light				
7. Perform diversion procedures	7.1 Requirement to perform diversion procedure is identified and a timely decision is made				
	7.2 Alternate acceptable aerodrome/destination is identified				
	7.3 New route is determined and established				

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
7. Perform diversion procedures continued	7.4 Waypoint and/or destination ETA are checked and revised as required				
	7.5 Flight plan is revised considering operational information, weather, terrain, airspace and fuel available				
	7.6 Air traffic service is advised of action where possible and compliance with airspace procedures is maintained				
	7.7 SARTIME awareness is maintained and revised based on diversion destination ETA calculations and is cancelled on arrival				
8. Use instrument navigation systems	8.1 Navigation systems are initialised and system validity checks are conducted as required				
	8.2 Receiver autonomous integrity monitoring (RAIM) checks are conducted as required				
	8.3 Navigation aids and systems are utilised to confirm position, track and navigation information				
	8.4 Flight plan is selected, loaded, checked and activated in aircraft navigation system				
	8.5 Navigation systems are operated in accordance with operating instructions and procedures				
	8.6 ATC radar is used for position information and tracking assistance as required				
	8.7 Waypoints and position fixes are confirmed using instrument navigation systems				
	8.8 Integrity of navigation aid/systems information is monitored and maintained				

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
9. Execute arrival procedures	9.1 Arrival aerodrome, meteorological conditions and local traffic information is obtained and applied to arrival procedure plan				
	9.2 Radio communications are established and maintained				
	9.3 Aerodrome landing direction and arrival procedure suitability are determined				
	9.4 Descent point is calculated				
	9.5 Arrival and circuit procedures are conducted at destination aerodrome				
	9.6 Lookout is maintained during arrival procedure using a systematic scan technique at a rate determined by traffic density, visibility and terrain				
	9.7 Aerodrome markings, lights, signals and indicators are interpreted, applied and adhered to				
	9.8 Local and published noise abatement requirements and curfews are observed				
	9.9 SARTIME awareness is maintained and revised based on diversion destination ETA calculations and cancelled upon arrival				



AVILIC0003 Licence to Operate a Commercial Aeroplane

Units of Competency

Application

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

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

Instrument:

Common standards:

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

Navigation and instrument flying standards:

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

Aircraft rating standards: aeroplane category:

- control aeroplane on the ground
- take-off aeroplane
- control aeroplane in normal flight
- land aeroplane
- aeroplane advanced manoeuvres
- manage abnormal situations – single engine aeroplanes

This unit addresses aviation non-technical skills and knowledge requirements (mental, social and personal-management abilities) for commercial pilots and contributes to safe and effective performance in complex aviation operational environments.

This unit also addresses aviation technical skills and knowledge requirements (physical, mental and task-management abilities) related to commercial pilot duties and contributes to safe and effective performance in complex aviation operational environments. Operations are conducted as part of commercial or military aircraft activities across a variety of operational contexts within the Australian Aviation Industry.

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

Licensing, Legislative, Regulatory or Certification Requirements are applicable to this unit.

Pre-Requisite Unit

Not applicable

Competency Field

LIC – Licensing

Unit Sector

Not applicable.



Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVILIC0003>

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 AVILIC0001 Licence to operate a commercial aeroplane.

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:

- applying competence as a commercial pilot within flight tolerance standards specified by the appropriate licence authority
- applying competence in an aeroplane capable of the following characteristics:
 - cruise true airspeed of not less than 120 knots
 - fitted with one of the following powerplants:
 - turbine engine with propeller
 - piston engine with variable pitch propeller
- conducting airspace operations in:
 - class G airspace
 - controlled aerodrome
 - controlled airspace
 - non-towered aerodrome.

Knowledge Evidence

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

- aircraft loading systems
- aircraft performance and landing calculations
- aircraft speed limitations
- aircraft systems
- applicability of drug and alcohol regulations
- classification of operations
- commercial pilot licence (CPL) maintenance authorisations
- day visual flight rules (VFR) commercial aircraft instrument requirements



- emergency equipment requirements
- flight and duty time limits
- fuel planning and oil requirements for the flight
- global navigation satellite system (GNSS) and its use in VFR navigation
- loading and unloading fuel
- managing cargo and passengers
- normal and non-normal operation of the propeller system fitted to flight test aeroplane
- privileges and limitations of a CPL with aeroplane category rating
- requirements for an Air Operator's Certificate (AOC)
- requirements for landing areas and aerodromes
- type of information contained in an operation manual

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 protective equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVILIC0003>

Assessment Requirements <https://training.gov.au/Training/Details/AVILIC0003>



AVILIC0003 Licence to Operate a Commercial 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. Communicate in an aviation environment	1.1 Effective face -to -face communication techniques are applied in accordance with general English language principles				
	1.2 Aeronautical radio is operated using appropriate operational communication aviation phraseology and terminology				
2. Perform pre-and post-flight actions and procedures	2.1 Pre-flight actions and procedures are completed				
	2.2 Pre-Flight inspection is performed				
	2.3 Post -flight actions and procedures are completed				
3. Operate aeronautical radio	3.1 Radio equipment is operated				
	3.2 Radiotelephone equipment malfunctions are managed				
	3.3 Aircraft transponder is operated during normal, abnormal and emergency situations				
4. Manage fuel	4.1 Fuel plan requirements are determined				
	4.2 Fuel system is managed				
	4.3 Aircraft refueling procedures are correctly completed				
5. Manage passengers and cargo	5.1 Passengers are managed				
	5.2 Passengers are aided and assisted as required				
	5.3 Cargo is managed				
6. Manage a safe flight	6.1 Effective lookout is maintained				
	6.2 Situational awareness is maintained				
	6.3 Situations are assessed, and effective decisions made				
	6.4 Task priorities are set, and tasks managed				



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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
6. Manage a safe flight continued	6.5 Effective communications and interpersonal relationships are maintained				
7. Recognise, direct and manage threats and errors	7.1 Threats are recognised and managed				
	7.2 Errors are recognised and managed				
	7.3 Undesired aircraft states are recognised and managed				
8. Navigate aircraft	8.1 Documents and flight plans are prepared				
	8.2 Airspace procedures are complied with while navigating				
	8.3 Departure procedures are conducted				
	8.4 Aircraft is navigated en route to waypoint or destination				
	8.5 Aircraft is navigated at low level and in reduced visibility				
	8.6 Lost procedure is performed as required				
	8.7 Diversion procedure is performed as required				
	8.8 Instrument navigation systems are used to navigate under visual flight rules (VFR) or instrument flight rules (IFR)				
	8.9 Instrument navigation systems are used to navigate under visual flight rules (VFR) or instrument rules (IFR)				
9. Control aeroplane on the ground	9.1 Aircraft engine is started and stopped				
	9.2 Aeroplane is taxied				
10. Take-off Aeroplane	10.1 Pre-take-off procedures are carried out				
	10.2 Aeroplane take-off is conducted				
	10.3 Cross-wind aeroplane take-off is conducted				



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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
10. Take-off Aero plane continued	10.4 After take-off procedures are carried out				
	10.5 Short field aeroplane take-off is performed using appropriate procedures				
11. Control Aeroplane in normal flight	11.1 Aeroplane is climbed				
	11.2 Straight and level flight is maintained				
	11.3 Aeroplane is descended				
	11.4 Aeroplane is turned				
	11.5 Aeroplane is controlled at slow speeds				
	11.6 Aeroplane circuits and approaches are performed				
	11.7 Local area airspace procedures are confirmed as required and applied				
12. Land Aeroplane	12.1 Aeroplane is landed				
	12.2 Cross-wind aeroplane landing is conducted				
	12.3 Missed approach is conducted				
	12.4 Recovery from missed landing is performed				
	12.5 Short field aeroplane landing is performed using appropriate procedures				
13. Perform advanced manoeuvres	13.1 Stall conditions are entered and recovered, including incipient spin, stall without power applied, stall from straight and level, stall in approach configuration, stall while turning, and stall with full power applied, or stall while climbing, or stall while descending				
	13.2 Incipient spin recovery is conducted				
	13.3 Aeroplane is turned steeply				
	13.4 Aeroplane is side-slipped, when permitted				



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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
14. Operate using full instrument panel	14.1 Serviceability of flight instruments and instrument power sources is determined and monitored				
	14.2 Full instrument panel manoeuvres are performed				
	14.3 Upset situations and unusual aircraft attitude recovery is performed using full instrument panel				
15. Operate using limited instrument panel	15.1 Attitude indicator and stabilised heading indicator failures are recognised				
	15.2 Limited instrument panel manoeuvres are performed				
	15.3 Upset situations and unusual aircraft attitude recovery is performed using limited instrument panel				
	15.4 Visual flight is re-established				
16. Navigate using radio navigation aids and systems	16.1 Radio navigation systems are operated and monitored				
	16.2 Aircraft is navigated using navigation aids and systems				
17. Operate at non-towered aerodromes	17.1 Preparations for non-towered aerodrome operations are conducted				
	17.2 Aircraft is taxied at non-towered aerodrome or landing area				
	17.3 Non-towered aerodrome or landing area departure is performed				
	17.4 Non-towered aerodrome or landing area arrival is performed				



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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
18. Operate in Class G airspace	18.1 Aircraft is operated in Class G airspace				
	18.2 Appropriate tolerances are applied and maintained				
	18.3 Aircraft radio procedures are implemented as required				
	18.4 Operations are conducted in accordance with suitable charts				
	18.5 Appropriate actions are performed in abnormal operations and emergencies				
19. Operate at a controlled aerodrome	19.1 Preparations for controlled aerodrome operations are conducted				
	19.2 Aircraft is taxied at controlled aerodrome				
	19.3 Controlled aerodrome departure is performed				
	19.4 Controlled aerodrome arrival and landing are performed				
20. Operate in controlled airspace	20.1 Aircraft is operated in controlled airspace				
	20.2 Airways clearance requirements are complied with				
	20.3 Tracking and altitude tolerances are maintained when operating on an airway clearance				
	20.4 Separation standards are applied between instrument and visual flights within controlled airspace				
	20.5 Appropriate abnormal and emergency response actions are implemented as required				
	20.6 Air traffic control (ATC) directions, instructions and requirements are adhered to within controlled airspace				



AVIO0017 Manage Disruptive Behaviour and Unlawful Interference with Aviation

Units of Competency

Application

This unit involves the skills and knowledge required to manage disruptive behaviour and unlawful interference with aviation in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards. It includes monitoring passenger behaviour, identifying and resolving disruptive or unlawful interference, taking action to manage unlawful interference, and reporting and documenting unlawful interference with aviation.

This unit addresses aviation non – technical skill requirements (mental, social and personal – management abilities) related to aviation security duties of aviation personnel 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 as a single operator or within a team environment.

Work is performed independently or under limited supervision as 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

O- Security

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIO0017>

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 AVIO0002 Manage disruptive behaviour and unlawful interference with aviation.



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:

- adapting to differences in equipment in accordance with standard operating procedures (SOPs)
- 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
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying problems, faults or malfunctions promptly in accordance with workplace procedures
- responding appropriately to cultural differences in the workplace
- 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:

- by-laws and service rules as they apply to disruptive behaviour and unlawful interference with aviation
- common law as it applies to disruptive behaviour and unlawful interference with aviation
- legal and workplace parameters with regard to unlawful interference with aviation
- disruptive behaviours, including:
 - arguments
 - hostilities
 - fare evasion
 - verbal abuse
 - physical abuse
 - graffiti
 - not complying with no smoking signs
 - not complying with aviation transport security regulations
 - drunken behaviour



- unlawful interference with aviation, including:
 - causing damage to an aircraft that is in service that puts the safety of the aircraft, or any person on board or outside the aircraft, at risk
 - committing an act at an airport, or causing any interference or damage, that puts the safe operation of the airport, or the safety of any person at the airport, at risk
 - destroying an aircraft that is in service
 - doing anything on board an aircraft that is in service that puts the safety of the aircraft, or any person on board or outside the aircraft, at risk
 - placing, or causing to be placed, on board an aircraft that is in service anything that puts the safety of the aircraft, or any person on board or outside the aircraft, at risk
 - putting the safety of an aircraft at risk by communicating false or misleading information
 - putting the safety of aircraft at risk by interfering with, damaging or destroying air navigation facilities
 - taking control of an aircraft by force, or threat of force, or any other form of intimidation or by any trick or false pretence
- procedures for managing disruptive behaviour and unlawful interference with aviation
- relevant WHS and environmental protection procedures and guidelines
- relevant state/territory regulations and requirements for managing disruptive and unlawful behaviour on transport systems
- risks and hazards when managing disruptive behaviour and unlawful interference with aviation and related actions to control the risk

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/AVIO0017>

Assessment Requirements <https://training.gov.au/Training/Details/AVIO0017>

AVIO0017 Manage Disruptive Behaviour and Unlawful Interference with Aviation

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. Monitor passenger behaviour	1.1 Facilities and transportation units under individual surveillance are regularly monitored to identify and/or record inappropriate behaviour				
	1.2 Potential problem situations are quickly identified, and steps taken to resolve the situation in accordance with regulatory requirements				
	1.3 Incidents that breach aviation transport security requirements are identified and appropriate action taken				
	1.4 Surveillance equipment is operated within legal and workplace parameters				
	1.5 Hazards are identified, risks are assessed, and hazard management implemented				
2. Identify and resolve disruptive or unlawful behaviour	2.1 Nature of disruptive behaviour or unlawful interference is accurately assessed, and incident resolved using appropriate resolution strategies or referred to appropriate personnel for resolution				
	2.2 Procedures are followed to isolate offender/s and to minimise disruption to other passengers				
	2.3 Assistance is sought from other staff and external support services as required				
	2.4 Follow-up action is implemented in accordance with workplace rules, regulations and guidelines				

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. Take action to manage unlawful interference	3.1 Assistance is sought from other staff and external support services as required				
	3.2 Nature of offence and consequences of behaviour are clearly communicated to offender in accordance with workplace policies and procedures				
	3.3 Offenders are apprehended in accordance with legal and workplace parameters				
4. Report and document unlawful interference	4.1 Unlawful interference incidents are reported using the appropriate document format in accordance with workplace policies and procedures				
	4.2 Documentation is completed and processed in accordance with regulatory and organisational requirements				



AVIW0032 Operate and Manage Aircraft Systems

Units of Competency

Application

This unit involves the skills and knowledge required to operate and manage aircraft systems in compliance with relevant regulatory of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes operating and managing aircraft systems during normal flight and managing aircraft systems during abnormal and emergency procedures. This unit addresses aviation technical skill requirements (physical, mental and personal – management abilities) related to equipment and system operations of flight or ground operations personnel 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 as 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 system operations

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIW0032>

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 AVIW5018 Operate and manage aircraft systems.



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 aeronautical and aircraft systems knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting aircraft system displays
- interpreting and following operational instructions and prioritising work
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- operating manual and automated aircraft systems
- performing systematic scan technique for monitoring aircraft systems, sub-systems (equipment) and devices
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying identified problems, faults or malfunctions promptly in accordance with workplace procedures
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- undertaking fault finding in aircraft systems
- using automated systems to manage workload
- 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:

- aircraft systems as applicable to aircraft rating/endorsement requirements, including:
- anti-icing and de-icing systems:
 - method of de-icing aerofoils, propeller and carburettor
 - heat or power source of de-icing/anti-icing equipment
 - anti-icing and de-icing system limitations
 - operation and control of anti-icing and de-icing systems
 - likely faults that may affect anti-icing and de-icing systems
 - emergency operating procedures for anti-icing and de-icing systems
- aircraft system checklists, including:
 - explanation of normal system operating procedures of aircraft systems, sub-systems and devices used to operate specific aircraft type, including use of published scans and checklists, immediate action items, warnings and limitations



- automated systems, including:
 - limitations of automated systems
 - operating procedures for systems, such as flight management system, auto throttle/engine control, flight director system, automated aircraft navigation systems, automated engine condition and monitoring system
 - workload management procedures for utilising automated systems
 - warning systems/indicators to identify automated systems failure
- autopilot, including:
 - principles of operation of autopilot system
 - likely faults that may affect autopilot system
 - emergency operating procedures for autopilot system
 - identification of power sources, voltage or pressure
 - procedure to determine gyros are operating normally
 - procedure to engage autopilot
 - normal and emergency procedure to disengage autopilot
 - limits of gyro units
- electrical system, including:
 - use of a schematic diagram of the electrical system to explain type/s of electrical system (alternating current (AC)/direct current (DC))
 - likely faults that may affect electrical system
 - emergency operating procedures for electrical system
 - voltage and amperage of battery
 - number and output of generators
 - methods of circuit protection
 - location of fuses and circuit breakers
 - precautions to be taken when operating electrical service
 - instruments operated by electrics
- enhanced ground proximity warning system (EGPWS)/terrain awareness and warning system (TAWS), including:
 - identification and demonstration or explanation of function of all cockpit EGPWS/TAWS controls
 - information terrain awareness display shows
 - warnings given by fitted EGPWS/TAWS, including what each warning indicates is happening to aircraft in flight
- fuel system, including:
 - use of a schematic diagram of fuel system to explain layout and normal operating procedures
 - likely faults that may affect fuel system
 - emergency operating procedures for fuel system
 - operation of fuel selector panel
 - use of cross-feed
 - fuel-dumping procedures
 - full fuel capacity and fuel grade
 - normal, minimum and maximum fuel pressure
- heating, ventilation and pressurisation systems, including:
 - normal procedures to operate and control system
 - likely faults that may affect heating, ventilation and pressurisation system
 - emergency procedures for operation of system
 - precautions to be complied with
- hydraulic system, including:
 - use of a schematic diagram of hydraulic system to explain layout and normal operating procedures
 - likely faults that may affect hydraulic system
 - emergency operating procedures for hydraulic system
 - units or services operated by hydraulics
 - type of hydraulic fluid, operating pressure and capacity of reservoir



- oil system, including:
 - use of a schematic diagram of oil system to explain functions of oil system
 - likely faults that may affect oil system
 - emergency operating procedures for oil system
 - number of tanks, capacity and oil grade
 - oil sources of auxiliary systems, such as constant speed unit (CSU) and propeller feathering, if fitted
 - normal, minimum and maximum oil pressure and temperature
 - operation of oil cooling system
- pitot/static system, including:
 - use of a schematic diagram to explain layout and operation of pitot/static system
 - heating source of pitot system
 - operating procedure for pitot/static system
 - methods of detecting pitot/static system problems
 - procedures to rectify static system problems
 - location of pitot and static pressure source
 - location of static drain points
- pressurisation systems, including:
 - pressurisation failure warning indications fitted to aircraft type flown
 - function of bleed air with respect to an aircraft pressurisation system
 - procedure for manual control of cabin pressurisation applicable to aircraft type flown
 - recall of maximum pressure differential for aircraft type flown
 - symptoms, indications and warnings that may indicate failure of pressurisation system
 - automatic depressurisation system operation procedures after landing
 - physiological symptoms of hypoxia
 - physical and psychological hazards that could occur during a rapid decompression
 - cabin altitude above which supplementary oxygen must be used by crew and passengers
- retractable undercarriage, including:
 - method of preventing retraction of undercarriage on the ground
 - cockpit indications for undercarriage down and locked
 - cockpit indications for undercarriage retracted
 - emergency procedures to extend and lock undercarriage down
- suction system, including:
 - use of a schematic diagram of suction system to explain function of suction system
 - source of suction pressure
 - normal operating pressure
 - instruments operated by suction pressure
 - warning system to indicate suction pump failure
- traffic and collision avoidance systems (TCAS), including:
 - surveillance and collision avoidance functions of TCAS II
 - system limitations, selectivity and inhibits
 - basic components of TCAS II
 - identification and demonstration or explanation of function of cockpit controls
 - TCAS II visual displays and symbology
 - functions of audio alerts and annunciations
 - appropriate crew response to multiple TCAS II events, and parallel runway approach conflicts
 - recall of radiotelephone procedures following a TCAS II alert
 - requirements for a written report of a TCAS II alert and to whom it must be submitted



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/AVIW0032>

Assessment Requirements <https://training.gov.au/Training/Details/AVIW0032>

AVIW0032 Operate and Manage Aircraft Systems

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. Operate and manage aircraft systems during normal flight	1.1 Aircraft systems, sub-systems (equipment) and devices applicable to aircraft type and task are operated and managed				
	1.2 Aircraft systems, sub-systems (equipment) and devices are monitored using a systematic scan technique				
	1.3 Aircraft systems and flight environment information are analysed to identify actual and potential threats or errors				
	1.4 Automated aircraft systems are utilised to manage cockpit workload				
	1.5 Hazards are identified, risks are assessed, and hazard management implemented				
	1.6 Checklist procedures are completed as appropriate to aircraft system				
2. Manage aircraft systems during abnormal and emergency procedures	2.1 Non-normal or emergency situations are recognised				
	2.2 Control of aircraft flight path is maintained during abnormal and emergency response procedures				
	2.3 Affected aircraft system or sub-system is identified and confirmed				
	2.4 Checklist procedures are recalled and implemented during abnormal and emergency situations using appropriate techniques				
	2.5 Appropriate non-normal or emergency procedures are performed in accordance with relevant workplace and emergency procedures, and regulatory requirements				



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 aircraft systems during abnormal and emergency procedures continued	2.6 Course of action is decided, implemented, evaluated and revised to achieve safest outcomes				
	2.7 Location and operation of emergency systems applicable to aircraft type are explained				



AVIY0033 Operate Aircraft Using Aircraft Flight Instructions

Units of Competency

Application

This unit involves the skills and knowledge required to coordinate the removal of disabled aircraft in compliance with relevant regulatory of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes coordinating aircraft recovery resources, maintaining operational facilities, and documenting and recording the removal process.

This unit addresses aviation technical skill requirements (physical, mental and personal – management abilities) related to equipment and system operations of flight or ground operations personnel 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 as a single operator or within a team environment.

Licensing, Legislative, Regulatory or Certification Requirements are applicable to this unit.

Pre-Requisite Unit

Not applicable

Competency Field

W – Equipment and system operations

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIY0033>

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 AVIY0001 Operate aircraft using aircraft flight instruments



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:

- conducting serviceability inspections, including:
 - displaced threshold markers
 - dumb bell markers
 - glider markers
 - signal circle markers
 - unserviceability cones
 - unserviceability cross markers
 - unserviceability lighting
- applying precautions and required action to minimise, control or eliminate identified hazards
- following emergency response procedures, including one or more of the following:
 - implementing aerodrome emergency procedures
 - reporting to the Australian Transport Safety Bureau (ATSB)
 - reporting to local police service
- applying relevant legislation and workplace procedures
- calculating declared distances defined by regulation
- communicating effectively with others
- completing relevant documentation
- conducting serviceability inspections of aerodrome and obstacle limitation surfaces (OLS)
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action, including one or more of the following:
 - bird or animal activity
 - changes or loss of runway surface frictional characteristics
 - disabled aircraft, vehicles and equipment and associated debris
 - excessive loose materials
 - flooding
 - fuel and oil spills
 - loss of runway shape
 - loss of visibility of markings
 - potholes or cracks
 - runway edge fretting
 - stripping
 - unsatisfactory pavement bearing capacity
- 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 problems, faults or malfunctions promptly in accordance with workplace procedures
- responding appropriately to cultural differences in the workplace
- 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, 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:

- aerodrome serviceability standards
- communications equipment checks
- declared distances for aircraft operations
- declared WHS and environmental procedures and regulations
- emergency procedures
- OLS applicable to that aerodrome
- procedures for making movement and obstacle restriction areas safe, including:
 - closing movement area (aerodrome closure)
 - contacting aerodrome users
 - extinguishing lighting in hazardous section of movement area
 - marking unserviceable area by day or night
 - partial closure of movement area
 - reporting aerodrome closures, lighting and obstacle limitations/restrictions by Notice to Airmen (NOTAM)
- procedures for managing and controlling hazardous situations when carrying out work activities
- procedures for operating electronic communications equipment
- procedures for facilitation of disabled aircraft removal, including:
 - coordination of the removal of the disabled aircraft, including returning the aerodrome to operational serviceability
 - notification of aircraft owner
 - notification of regulatory authorities
- relevant authorities for access and reporting purposes, including:
 - aerodrome operator or delegated person
 - aerodrome users' aircraft owner
 - air traffic control (ATC)
 - Australian Defence Forces Command for military bases
 - ATSB
 - Civil Aviation Safety Authority (CASA)
 - Department of Transport and Regional Services (DOTARS)
 - NOTAM Office (Air services Australia)
 - state/territory and federal police
- relevant information/documents, including:
 - aerodrome manuals
 - airline timetables
 - enroute Supplement Australia (ERSA)
 - induction and training manuals
 - Manual of Standards (MOS) – Aerodromes (Part 139)
 - workplace operating procedures manual
- obstacle restriction areas must include one or more of the following:
 - clearways
 - runway end safety areas
 - runway strips
 - taxiway strips
- visual aids must include one or more of the following:
 - aerodrome lighting
 - markers and markings
 - signal circles
 - wind indicator



- signs and notices must include one or more of the following:
 - authorised entry
 - hazard warnings
 - limited access
 - movement area guidance signs
 - no smoking
 - speed restrictions
 - underground electrical reticulation
- relevant requirements, standards and recommended practices of the International Civil Aviation Organisation (ICAO) for airport reporting
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders for inspecting aerodromes
- relevant sections of national and state or territory licensing and regulatory requirements
- requirements for completing relevant documentation
- standard operating procedures (SOPs) for removing disabled aircraft
- steps involved in planning work activities
- types and uses of visual aids
- types of removal equipment available
- typical defects that can occur and related action that should be taken
- visual inspection procedures

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/AVIY0033>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0033>

AVIW0033 Operate Aircraft Using Aircraft Flight Instruments

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. Coordinate aircraft recovery resources	1.1 Appropriate clearances are obtained prior to removal process				
	1.2 Established removal procedures are followed				
	1.3 Removal activities are coordinated with aircraft owner and relevant regulatory bodies				
	1.4 Need for recovery equipment is determined and its source is identified				
	1.5 Aircraft escort services on airside are provided as required				
	1.6 Obstacle restriction areas are avoided or made safe in accordance with workplace policy and procedures				
	1.7 Signs and notices are complied with				
	1.8 Hazards are identified, risks are assessed, and hazard management implemented				
	1.9 Airport organisations and others likely to be affected by the removal are notified				
	1.10 Appropriate aircraft recovery location is identified and route to that location is established				
2. Maintain operational facilities	2.1 Serviceability inspections are conducted to determine areas that may be restored to operational service				
	2.2 Infringement of obstacle limitation surfaces (OLS) and any changes to declared distances are determined				
	2.3 Visual aids are provided, installed and removed at completion of aircraft recovery				
	2.4 Emergency response procedures are implemented 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. Maintain operational facilities continued	2.5 Notice to Airmen (NOTAM) action is initiated and cancelled as required to support aircraft recovery				
3. Document and record removal process	3.1 Records of meetings are taken as required				
	3.2 Visual recording of removal process is conducted where access allows				
	3.3 Appropriate logbook entries are made				
	3.4 Incident or aircraft recovery reports are prepared and processed				



AVIY0034 Operate in Controlled Airspace

Units of Competency

Application

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

It includes applying controlled airspace procedures and applying abnormal and emergency situation response procedures. 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/AVIY0034>

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 Operate in controlled airspace.



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:

- adhering to air traffic services requirements for a change in level within control area (CTA), including emergency situations
- applying airways clearance requirements for entering, operating in and departing from CTA and control zone (CTR)
- applying relevant aeronautical knowledge
- complying with departure, climb, transition to cruise (levelling out), cruise, change of levels, descent and visual approach procedures in CTA and CTR instructions
- identifying controlled airspace separation requirements
- identifying danger area operating requirements
- obtaining and interpreting traffic information
- operating under radar vectoring procedures, including radio procedures and phraseologies
- performing appropriate actions in abnormal operations and emergencies
- performing appropriate actions radio communication in CTA and CTR is lost
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recalling transponder emergency and communication failure codes
- reconfirming air traffic services instructions where doubt exists
- selecting appropriate aircraft lighting configuration
- setting appropriate radio communication failure or emergency transponder codes during abnormal or emergency situations
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- transmitting appropriate aircraft position and intention broadcasts.

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 ground markings and lighting
- air traffic services information requirements
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane or helicopter operations within controlled airspace
- Class C, D and G airspace operating requirements
- controlled airspace
- danger areas
- Notice to Airmen (NOTAM) information requirements
- radio failure procedures
- restricted airspace
- standard radio telecommunication phraseology
- transponder codes for Class C, D and G airspace
- visual flight rules (VFR)
- visual navigation charts (VNC).



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/AVIY0034>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0034>

AVIY0034 Operate in Controlled Airspace

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. Apply controlled airspace procedures	1.1 Control area (CTA) and control zone (CTR) instructions for departure, climb, transition to cruise (levelling out), cruise, change of levels, descent and visual approach procedures are adhered to				
	1.2 Airways clearance requirements for entering, operating in and departing from CTA and CTR are adhered to				
	1.3 Adverse weather conditions affecting airways clearance maintenance are advised to appropriate air traffic services as required				
	1.4 Air traffic service requirements for a change in level within CTA during routine flight are adhered to				
	1.5 Class C, D and G navigational chart information is identified and interpreted for use within controlled airspace				
	1.6 Separation standards between instrument flight rule (IFR) flights, and IFR and visual flight rule (VFR) flights in various classes of CTA are confirmed and applied				
	1.7 Restricted and danger area separation requirements are identified and maintained				
	1.8 Class C, D and G radio and navigation aid frequencies are identified and used within controlled airspace				
	1.9 Aircraft IFR/VFR separation requirements are maintained				

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. Apply controlled airspace procedures continued	1.10 Aircraft altitude and tracking tolerances when operating on an airways clearance are maintained				
	1.11 CTA protection tolerances are maintained				
	1.12 Radar vectoring procedures, including radio procedures and phraseologies, are implemented as required through air traffic services instruction				
	1.13 Airways clearance requirements for operating in all classes of airspace, including lead time required for flight plan submission, contents, clearance void time, and 'read back' requirements, are complied with				
2. Apply abnormal and emergency situation response procedures	2.1 Aircraft is configured to maintain safe operating conditions within controlled airspace requirements during abnormal and emergency situations				
	2.2 Aircraft position and intention broadcasts are made to local and area traffic, including air traffic services				
	2.3 Appropriate radio communication failure or emergency transponder codes during abnormal or emergency situations are selected within CTA and CTR airspace				
	2.4 Air traffic service requirements for a change in level within CTA during abnormal or emergency situations are adhered to				



AVIY0035 Operate in Class G Airspace

Units of Competency

Application

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

It includes operating and navigating in uncontrolled airspace.

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/AVIY0035>

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 AVIY0003 Operate in class G airspace.



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:

- acquiring enroute weather information and/or local observations
- applying relevant aeronautical knowledge
- displaying effective uncontrolled airspace situational awareness
- identifying and interpreting Class G navigational chart information
- identifying controlled airspace separation requirements
- identifying danger area operating requirements
- identifying relevant Class G radio and navigation aid frequencies
- identifying restricted area separation requirements
- maintaining aircraft altitude tolerances
- maintaining aircraft instrument flight rule (IFR)/visual flight rule (VFR) separation requirements
- maintaining aircraft tracking tolerances
- obtaining and interpreting traffic information
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- selecting appropriate aircraft lighting configuration
- setting appropriate radio communication failure or emergency transponder codes during abnormal or emergency situations
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- transmitting appropriate aircraft position and intention broadcasts.

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:

- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane or helicopter operations in Class G airspace
- class G airspace operating requirements
- controlled airspace
- danger areas
- IFRs
- radio failure procedures
- restricted airspace
- standard radio telecommunication phraseology
- transponder codes for Class G airspace
- VFRs
- visual navigation charts (VNC).



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/AVIY0035>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0035>

**AVIY0035 Operate in Class G Airspace**

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. Operate in uncontrolled airspace	1.1 Aircraft tracking tolerances are maintained to remain within Class G airspace				
	1.2 Aircraft altitude tolerances are maintained to remain within Class G airspace				
	1.3 Traffic separation tolerances between instrument flight rule (IFR) and visual flight rule (VFR) operations are maintained				
	1.4 Abnormal and emergency situation response actions are implemented as required				
2. Navigate in uncontrolled airspace	2.1 Flight operations are conducted with appropriate separation from active aerodrome and landing areas				
	2.2 Controlled and restricted airspace areas are identified, and separation tolerances maintained during all phases of flight				
	2.3 Appropriate flight operating procedures are applied in vicinity of danger areas				
	2.4 Radio communication failure and aircraft emergency transponder codes are utilised as required				



AVIY0036 Operate at Non-Towered Airspace

Units of Competency

Application

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

It includes conducting pre-flight preparations; taxi aircraft; and applying aircraft departure, arrival and landing procedures.

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/AVIY0036>

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 AVIY0004 Operate at non-towered aerodromes.



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:

- applying aircraft taxi or air transit procedures
- applying day visual flight rules (VFR) departure procedures
- applying day VFR arrival and landing procedures
- applying effective aerodrome traffic situational awareness
- applying relevant aeronautical knowledge
- confirming runway and landing area serviceability
- displaying sound airmanship skills during non-towered aerodrome operations, including:
 - during taxi
 - aircraft departure
 - aircraft arrival
 - aircraft landing and dispersal
- identifying relevant operational information from Enroute Supplement Australia (ERSA) and Notice to Airmen (NOTAM)
- interpreting weather forecasts and local observations
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recognising and interpreting aerodrome ground markings
- setting appropriate transponder codes for local or area flight operations
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- transmitting local and area broadcasts

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 ground markings and lighting
- aerodrome wind velocity, wind direction and appropriate circuit procedure
- airmanship considerations during non-towered aerodrome operations, including:
 - during taxi
 - aircraft departure
 - aircraft arrival
 - aircraft landing and dispersal
- appropriate aircraft lighting configuration
- appropriate transponder codes for local or area flight operations
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane or helicopter operations at non-towered aerodromes
- day VFR arrival and landing procedures
- day VFR departure procedures
- how to identify relevant radio and navigation aid frequencies
- how to identify special aerodrome procedures
- how to interpret weather forecasts and local observations
- local and area broadcast procedures
- non-towered aerodrome operational information from ERSA and NOTAM
- NOTAM information
- radio failure procedures
- standard radio telecommunication phraseology
- transponder codes for Class G airspace



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/AVIY0036>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0036>



AVIY0036 Operate at Non-Towered Aerodrome

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 pre-flight preparations	1.1 Relevant non-towered aerodrome operational information is extracted from authorised sources				
	1.2 Information is interpreted to determine appropriate departure, arrival and landing requirements				
	1.3 Special aerodrome procedures are identified as required				
	1.4 Weather forecasts and local observations are checked for operating validity for flight planned duration				
	1.5 Relevant radio and navigation aid frequencies are identified for use during all flight modes				
2. Taxi aircraft at a non-towered aerodrome or landing area	2.1 Non-towered aerodrome or landing area charts are used				
	2.2 Local or area barometric pressure adjusted for sea level (QNH) is set				
	2.3 Operating intentions are broadcast via radio telecommunications on appropriate frequency				
	2.4 Local and area traffic information is obtained and interpreted				
	2.5 Aircraft separation and lookout is maintained for other aircraft and for other aerodrome obstructions or hazards				
	2.6 Appropriate aircraft lighting is selected during aircraft taxi				
	2.7 Aerodrome ground markings are identified, and appropriate action taken during aircraft taxi				
	2.8 Aircraft is taxied or air transited to runway holding point				



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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
3. Perform aircraft departure	3.1 Runway approaches are checked and cleared in all directions prior to entering runway				
	3.2 Aircraft transponder code and appropriate mode are selected				
	3.3 Aircraft position and operating intentions are broadcast on appropriate frequencies				
	3.4 Aircraft separation is maintained during aircraft departure sequence				
	3.5 Air service provider is advised of departure details as required				
4. Perform arrival and landing	4.1 Relevant non-towered aerodrome operational information is extracted from authorised sources prior to entering circuit area				
	4.2 Local or area barometric pressure adjusted for sea level (QNH) is set				
	4.3 Aircraft position and operating intentions are broadcast on appropriate frequencies				
	4.4 Aircraft separation and tracking tolerances are maintained				
	4.5 Wind velocity and direction is assessed to determine appropriate circuit and landing direction				
	4.6 Non-towered aerodrome runway or landing areas are confirmed as serviceable for landing sequence				
	4.7 Runway areas and landing areas are checked and confirmed to be clear of landing obstacles and hazards				
	4.8 Aircraft arrival sequence is conducted in accordance with manufacturer and organisational operating procedures				



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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
4. Perform arrival and landing continued	4.9 Aircraft is landed and cleared from runway and landing areas				
	4.10 Air service provider is advised of landing details as required				



AVIY0037 Operate at a Controlled Aerodrome

Units of Competency

Application

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

It includes conducting pre-flight preparations; taxi aircraft; and applying aircraft departure, arrival and landing procedures.

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/AVIY0037>

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 AVIY0005 Operate at a controlled aerodrome.



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:

- advising air traffic service of airways clearance instructions confirmation or non-compliance
- applying aircraft taxi or air transit procedures
- applying relevant aeronautical knowledge
- applying relevant approach and landing procedures
- applying relevant departure procedures
- applying sound airmanship skills during controlled aerodrome operations, including:
 - during taxi
 - aircraft departure
 - aircraft arrival
 - aircraft landing and dispersal
- determining aerodrome wind velocity, wind direction and appropriate circuit procedure
- identifying relevant operational information from En-route Supplement Australia (ERSA) and Notice to Airmen (NOTAM)
- interpreting weather forecasts and local observations
- obtaining and interpreting traffic information
- recognising and interpreting aerodrome ground markings
- selecting appropriate aircraft lighting configuration
- setting appropriate transponder codes control area operations
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight.

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:

- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane or helicopter operations at controlled aerodromes
- controlled aerodrome ground markings and lighting
- NOTAM information
- radio failure procedures
- standard radio telecommunication phraseology
- transponder codes for radio failure and emergency



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 protection equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIY0037>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0037>

**AVIY0037 Operate at a Controlled Aerodrome**

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 pre-flight preparations	1.1 Relevant non-towered aerodrome operational information is extracted from authorised sources				
	1.2 Information is interpreted to determine appropriate departure, arrival and landing requirements				
	1.3 Special aerodrome procedures are identified as required				
	1.4 Weather forecasts and local observations are checked for operating validity for flight planned duration				
	1.5 Relevant radio and navigation aid frequencies are identified for use during all flight modes				
2. Taxi aircraft at a non-towered aerodrome or landing area	2.1 Non-towered aerodrome or landing area charts are used				
	2.2 Local or area barometric pressure adjusted for sea level (QNH) is set				
	2.3 Operating intentions are broadcast via radio telecommunications on appropriate frequency				
	2.4 Local and area traffic information is obtained and interpreted				
	2.5 Aircraft separation and lookout is maintained for other aircraft and for other aerodrome obstructions or hazards				
	2.6 Appropriate aircraft lighting is selected during aircraft taxi				
	2.7 Aerodrome ground markings are identified, and appropriate action taken during aircraft taxi				
	2.8 Aircraft is taxied or air transited to runway holding point				



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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
3. Perform aircraft departure	3.1 Runway approaches are checked and cleared in all directions prior to entering runway				
	3.2 Aircraft transponder code and appropriate mode are selected				
	3.3 Aircraft transponder code and appropriate mode are selected				
	3.4 Air traffic departure instructions are complied with, and air traffic is advised of clearance instructions non-compliance as soon as possible as required				
	3.5 Aircraft separation is maintained, and wake turbulence conditions avoided during aircraft departure sequence				
	3.6 Air traffic service is advised of departure details as required				
	3.7 Airways clearance instructions are maintained within tracking and altitude tolerances, and lookout is maintained until clear of the aerodrome control zone				
4. Perform arrival and landing	4.1 Relevant controlled aerodrome operational information is extracted from authorised sources prior to entering control area				
	4.2 Local or area barometric pressure adjusted for sea level (QNH) is set				
	4.3 Air traffic clearance is gained from air traffic service and appropriate transponder code is selected prior to entry to control area, and air traffic is advised of clearance instructions non-compliance as soon as possible 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
4. Perform arrival and landing continued	4.4 Aircraft separation, lookout and tracking tolerances are maintained within the control area				
	4.5 Wind velocity and direction are assessed to confirm clearance instructions, and appropriate circuit and landing direction				
	4.6 Landing clearance is confirmed with air traffic service				
	4.7 Aircraft is landed and taxi clearance from runway and landing areas is obtained				



AVIY0040 Apply Aeronautical Knowledge of Aviation Operations

Units of Competency

Application

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

It includes utilising aviation terminology, demonstrating knowledge of basic aircraft power plants and systems, and applying aerodynamic theory. It also includes applying knowledge of aviation navigation charts, aircraft operations, and performance and planning factors.

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/AVIY0040>

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 AVIY0008 Apply aeronautical knowledge to aviation operations.



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:

- applying basic aerodynamic theory
- applying knowledge of aircraft operations, performance and planning
- applying knowledge of aviation navigation charts
- applying knowledge of basic aircraft power plants and systems
- applying relevant aeronautical knowledge
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- utilising aviation terminology.

Knowledge Evidence

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

- aircraft operations, performance and planning
- basic aerodynamic theory
- aviation navigation charts
- aviation terminology
- basic aircraft power plants and systems
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane or helicopter operations
- general flight planning and performance, including:
 - density height
 - take-off and landing performance
 - climb, cruise and descent performance
 - weight and balance
 - loading limitations and terminology
 - speed limitations and terminology
 - enroute supplement information relevant today visual flight rules VFR operations
- flight plan preparation, including:
 - flight planning
 - equi-time point (ETP)
 - point of no return (PNR)
 - diversions



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 protection equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIY0040>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0040>

AVIY0040 Apply Aeronautical Knowledge to Aviation Operations

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. Utalise aviation terminology	1.1 Standard aeronautical terminology and phraseology is used to explain aviation operations				
	1.2 Flight direction is correctly explained using accepted units of measure and direction				
	1.3 Flight speed, distance and velocity terms are correctly outlined				
	1.4 Aviation units of measure are utilised during aviation operations				
2. Apply knowledge of basic aircraft power plants and systems	2.1 Piston engine aircraft operating principles are explained				
	2.2 Operator knowledge of aviation fuels and oils usage is applied				
	2.3 Engine handling techniques and operating limitations are implemented				
	2.4 Aircraft system component malfunctions/failures and associated system warnings, cautions and indications are correctly outlined				
	2.5 Aircraft flight instruments are identified, and their purpose explained				
3. Apply basic aerodynamic theory	3.1 Basic aircraft operational states are explained in terms of kinetic and potential energy terms				
	3.2 Standard aerodynamic terminology and phraseology is used to describe aviation operations				
	3.3 Wake turbulence and associated aircraft operational effects are explained				
	3.4 Thrust stream turbulence, including jet blast and rotor downwash hazards to flight operations, are identified				



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
4. Apply knowledge of aviation navigation charts	4.1 Visual chart types and major chart features displayed are explained				
	4.2 Controlled airspace (CTA), prohibited, restricted and danger (PRD) areas are identified on appropriate visual charts				
	4.3 Appropriate PRD data is determined and extracted for use in aviation navigation planning				
	4.4 Runway information and operational limitations data is extracted from enroute supplements for use in aviation navigation planning				
5. Apply knowledge of aircraft operations performance and planning	5.1 Aircraft airworthiness requirements and certification documentation are identified and correctly compiled				
	5.2 Aircraft take-off and landing performance data is extracted from authorised sources and is correctly used during aircraft performance planning				
	5.3 Aircraft weight and balance planning factors are correctly outlined and used during aircraft loading calculations				



AVIY0041 Apply the Principles of Civil Air Law to Aviation Operations

Units of Competency

Application

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

It includes compiling aviation documentation, applying flight crew licensing requirements, and applying flight rules and conditions of flight to aviation operations. It also includes applying air service operations legislative requirements, aerodrome and airspace knowledge, and aviation emergency and search and rescue (SAR) knowledge to aviation operations.

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.

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/AVIY0041>

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 AVIY0009 Apply the principles of civil air law to aviation operations.



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:

- applying air service operations legislative requirements
- applying aviation emergency and search and rescue (SAR) knowledge to aviation operations
- applying flight crew licensing requirements
- applying flight rules and conditions of flight to aviation operations
- applying relevant aeronautical knowledge
- compiling legislated aviation documentation
- extracting information from civil air law, aviation regulations, policies and procedures
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs

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:

- application of civil air law, aviation regulations, policies and procedures to aviation operations
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane or helicopter operations
- relevant sections of CASRs and Civil Aviation Orders pertaining to civil air law, regulations, policies and procedures

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 protection equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIY0041>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0041>

AVIY0041 Apply the Principles of Civil Air Law to Aviation Operations

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. Compile aviation documentation	1.1 Flight time recording requirements are accurately transcribed and compiled within authorised flight documents and flight record systems				
	1.2 Aviation legislation, aeronautical information and general operating rules are confirmed and applied to aviation operations				
	1.3 Aircraft maintenance release requirements and documentation compliance requirements are clarified				
2. Apply flight crew licensing knowledge	2.1 Knowledge of flight crew license limitations and privileges is applied				
	2.2 Flight crew license medical standards and limitations are confirmed and applied to aviation operations				
	2.3 Licence holder privileges relating to daily maintenance inspections, maintenance release documentation and defect reporting are complied with				
3. Apply flight rules and conditions of flight	3.1 Rules of the air are applied to aviation operations				
	3.2 Aerodrome operating requirements are applied				
	3.3 Separation minima at non-controlled aerodromes is applied				
	3.4 Smoking restrictions during take-off, landing and refuelling operations are complied with				
	3.5 Carriage and discharge of firearms requirements are applied				



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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
3. Apply flight rules and conditions of flight continued	3.6 Visual flight rules (VFR) and visual meteorology conditions are applied to aviation operations below 10,000 feet (ft)				
	3.7 Altimetry procedures for flight below 10,000 ft are applied to aviation operations				
	3.8 Drugs and alcohol usage rules, including temporary medical unfitness for flight, are complied with				
	3.9 Aircraft lighting configuration and operating requirements are followed				
	3.10 Minimum operating heights for flights over populated and other areas are applied				
	3.11 Flight operating limitations for acrobatic flights and flights over public gatherings are complied with				
	3.12 Flight operating requirements for take-off and landing during daylight hours are applied				
4. Apply air service operations and legislative requirements	4.1 Passenger carriage legislative requirements are extracted from authorised references				
	4.2 Cargo, floatation and survival equipment, dangerous goods and miscellaneous cargo carriage requirements are applied				
	4.3 Legislative responsibilities and requirements of the pilot in command (PIC) are identified				
	4.4 Legislative requirements of flight crew before and after flight duties are applied				
5. Apply aerodrome and airspace knowledge	5.1 Aerodrome movement areas, landing areas, helicopter landing site (HLS) and markings are identified				
	5.2 Aerodrome operating procedures are applied to circuit operations				
	5.3 Aerodrome meteorological minima is applied				



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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
5. Apply aerodrome and airspace knowledge continued	5.4 Classes of controlled and uncontrolled airspace are complied with				
	5.5 Prohibited, restricted and danger (PRD) area flight operating conditions are applied				
	5.6 Flight information and air traffic service area boundaries and limitations are identified and applied to aviation operations				
	5.7 Altimetry datum and appropriate reference heights are calculated and applied to aviation operations				
	5.8 Airspace documentation is identified and prescribed airspace requirements followed				
	5.9 Air Defence Identification Zone (ADIZ) operating requirements, pilot interception actions and vested powers of the PIC are explained				
6. Apply aviation emergency and search and rescue (SAR) knowledge	6.1 Radio equipment testing and listening watch requirements are applied				
	6.2 Aircraft navigation and landing light usage during emergency procedures is explained and applied				
	6.3 Emergency incident and accident definitions and reporting requirements are outlined				
	6.4 Mercy flight conditions and restrictions are outlined				
	6.5 Flight incident and accident notification responsibilities of the PIC are identified				
	6.6 Search and rescue time (SARTIME) is determined and applied to aviation operations				
	6.7 Emergency procedure documents are identified and utilised during emergency and SAR operations				



AVIY0083 Execute Advanced Aeroplane Manoeuvres and Procedures

Units of Competency

Application

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

It includes turning the aeroplane steeply, sideslipping, and executing short take-off and landing procedures. It also includes entering and recovering from stall conditions and recovering from an incipient spin.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational duties of flight crew and ground personnel 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/AVIY0083>

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 AVIY0018 Execute advanced manoeuvres and procedures.



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 executing advanced aeroplane manoeuvres and procedures
- compensating for the secondary effects of controls
- completing relevant documentation
- conducting short take-offs and landings
- conducting steep turns, including:
 - straight and level
 - descending
- entering and recovering from stall conditions, including:
 - incipient stall
 - stall with full power
 - stall without power applied
- conducting stall during:
 - straight and level flight
 - climbing
 - descending
 - approach to land configuration
 - turning
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising workload
- 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 functions of fuel systems
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- performing pre-maneuvre checks in accordance with regulatory requirements and manufacturer procedures
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recognising flight situations that may require advanced manoeuvres and procedures, and applying the necessary techniques
- recognising single-engine incipient spin conditions
- recovering from single-engine incipient spins, including:
 - straight and level
 - climbing turning
- reporting and/or rectifying identified problems promptly in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards



- sideslipping an aeroplane including:
 - straight sideslip
 - sideslipping turn
 - recovery actions
- 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:

- aerodynamic and aeroplane operational considerations related to slow flight, sideslipping, stalling, spinning, steep turns, upset aeroplane states, including:
 - symptoms of approach to stall and throughout the stall, manoeuvre until recovery
 - relationship between angle of attack and stall
 - effects of weight, 'g' force and angle of attack
- dangers of unbalanced flight
- principle of stick and control and the point of stall
- priority given to reduce angle of attack during stall manoeuvres
- loss of height in relation to available height and energy state
- technique of converting excess speed to height
- technique of converting excess height to speed
- symmetrical and rolling 'g' force limitations
- higher stall speeds when aeroplane is turning
- effects on fuel, pitot and flap systems
- application of pre-maneuvre checks in accordance with regulatory requirements and manufacturers procedures
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- contents of the aircraft flight manual (AFM)/pilot's operating handbook (POH)
- day visual flight rules (VFR) criteria
- effects of 'g' forces
- effects of a sideslip on aeroplane performance
- effects of maximum rate and minimum radius turns
- effects of sideslipping on aeroplane on fuel, pitot and flap systems
- environmental conditions that represent visual meteorological conditions (VMC)
- functions and effects of all aeroplane controls
- ground hazards associated with minimum ground roll operations
- hazards of unbalanced flight
- in a Defence context, relevant Defence Orders and Instructions
- increased induced drag during a steep turn
- increased stalling speed in a steep turn
- local and published noise abatement requirements and curfews
- operational circumstances where steep turns are required
- principles of aerodynamics
- procedures and techniques for short take-offs and landings
- procedures and techniques for sideslipping an aeroplane
- procedures and techniques for turning an aeroplane steeply
- procedures for recovering from stalls and spins
- procedures for short take-offs and landings
- recognising stall and incipient spin conditions



- relevant sections of aeronautical information package (AIP)
- relevant sections of CASRs and Civil Aviation Orders
- relevant WHS and environmental procedures and regulations
- take-off and landing performance chart calculations
- windsock and other indicators 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 personal protection equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIY0083>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0083>

AVIY0083 Execute Advanced Aeroplane Manoeuvres and 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
1. Turn aeroplane steeply	1.1 Pre-maneuvres checks for steep turning are performed				
	1.2 Flightpath is cleared before and during turn				
	1.3 Steep level turn of nominated bank angle is achieved without altitude change to nominated heading				
	1.4 Descending turn of nominated bank angle is achieved to nominated heading				
	1.5 Awareness of higher stall speed in turns is applied				
	1.6 Aeroplane operating limits are not exceeded				
2. Sideslip aeroplane	2.1 Yaw is induced to achieve increased rate of descent while maintaining track and airspeed				
	2.2 Recovery from sideslip is achieved and aeroplane is returned to balanced flight				
	2.3 Flightpath is cleared before and during manoeuvres				
	2.4 Glide speed is maintained				
3. Execute short take-off	3.1 Take-off performance is calculated in accordance with performance chart				
	3.2 Pre-take-off, line-up and after take-off checks are performed in accordance with approved checklist and regulatory requirements				
	3.3 Aeroplane is lined up to enable use of maximum runway length				
	3.4 Short take-off technique is applied in accordance with aircraft flight manual (AFM)/pilot's operating handbook (POH) requirements				

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. Execute short take-off continued	3.5 Separation with other traffic is maintained				
	3.6 Appropriate allowance is made for surface and wind conditions				
4. Execute short landing	4.1 Landing performance is calculated in accordance with performance chart				
	4.2 Aeroplane is landed at nominated touchdown point using appropriate techniques and procedures in accordance with AFM/POH requirements				
	4.3 Separation with other traffic is maintained				
	4.4 Appropriate allowance is made for surface and wind conditions				
	4.5 After-landing checks are performed in accordance with approved checklist and regulatory requirements				
5. Entre and recover from stall	5.1 Pre-maneuvres checks for stalling are performed				
	5.2 Stall signs and symptoms are recognised				
	5.3 Aeroplane is controlled by applying required pitch, roll and yaw inputs as appropriate in a smooth, coordinated manner, and aeroplane is accurately trimmed to enter and recover from stall conditions				
	5.4 Stall recovery in simulated partial and complete engine failure configurations is initiated and completed using established stall recovery techniques				

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. Recover from incipient spin	6.1 Pre-maneuvres checks for an incipient spin are performed				
	6.2 Incipient spin signs and symptoms are recognised coordinated manner, to enter and recover from spin conditions during straight and level flight, climbing and turning				
	6.3 Aeroplane is controlled during spin manoeuvres by applying required pitch, roll and yaw inputs as appropriate in a smooth,				
	6.4 Spin recovery is initiated and completed using established incipient spin recovery techniques				



AVIY0047 Manage Abnormal Aeroplane Flight Situations

Units of Competency

Application

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

It includes managing engine failure after take-off, performing forced landings following engine failure, conducting precautionary search and landing, and managing on-board abnormal and emergency situations. This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational duties of flight crew and ground personnel 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/AVIY0047>

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 AVIY0019 Manage abnormal aeroplane flight situations.



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 awareness of appropriate forced landing areas in aerodrome environments
- 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, including when using radio
- compensating for the secondary effects of controls
- completing documentation related to abnormal aeroplane flight situations
- conducting flight with unreliable airspeed indications
- conducting precautionary search and landing
- ensuring compliance with relevant emergency procedures and regulatory requirements
- executing simulated emergency evacuation plans
- identifying aeroplane emergency evacuation conditions
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising workload
- managing engine failure after take-off
- managing on-board abnormal and emergency situations
- 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 aeroplane within its limitations and achieving optimum performance
- operating electronic communications equipment to required protocol
- performing forced landings following engine failure, including:
 - complete engine failure (simulated)
 - partial engine failure (simulated)
- performing various flight control functions simultaneously as required
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recognising situations that may require a precautionary landing
- reporting and/or rectifying identified problems promptly in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment in abnormal aeroplane flight situations
- 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 managing abnormal aeroplane flight situations
- 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:

- action planning processes
- action required in an engine failure in flight, other than after take-off
- actions to be conducted following a forced landing
- aircraft performance in a glide (straight and turning)
- applicable engine failure and abnormal situation checklist items
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- causes leading to precautionary landings
- contents of flight manual and pilot's operating handbook (POH)
- controllability checks and external inspection procedures
- ditching procedures when specified in the aircraft flight manual (AFM), POH or company operations manual
- effects of partial engine failure on aeroplane performance with respect to straight and level flight and turning while maintaining level flight
- effects of partial engine power on performance, flight profile, range and landing options
- emergency radio procedures
- engine failure scenarios and procedures for partial and complete power loss
- factors affecting a stall
- factors to be considered when deciding whether to land immediately or proceed to a more suitable landing area after a partial engine failure
- forced landing scenarios and procedures
- functions and effects of all aeroplane controls
- hazard of sideslip at low altitude
- hazards associated with flying operations at low level
- hazards associated with turning an aeroplane at slow speed using large angles of bank while maintaining level flight following a partial engine failure after take-off
- height loss while gliding, including minimum height to achieve safe turns towards selected landing area
- in a Defence context, relevant Defence Orders and Instructions
- judging descent profiles in various configurations
- operation of safety/survival/life support equipment applicable to aeroplane type
- passenger control and briefing procedures for abnormal and emergency situations
- poor visibility configuration
- potential dangers of unbalanced flight at slow speed
- practical action plans for use in an engine failure after take-off
- pre-abandonment/emergency evacuation checks
- principles of aerodynamics
- prioritising activities during emergencies and non-normal situations
- relevant sections of aeronautical information package (AIP) related to abnormal and emergency flight situations
- relevant sections of CASRs and Civil Aviation Orders related to abnormal and emergency flight situations
- relevant sections of En Route Supplement Australia (ERSA) related to abnormal and emergency flight situations
- relevant WHS and environmental procedures and regulations
- suitable fields for forced landings and precautionary landings
- survival techniques following an emergency evacuation
- visual meteorological conditions (VMC)



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 protection equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIY0047>

Assessment Requirements <https://training.gov.au/Training/Details/AVIY0047>

AVIY0047 Manage Abnormal Aeroplane Flight Situations

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 engine failure after take-off	1.1 Abnormal or failed engine indications are correctly identified				
	1.2 Control of aeroplane is maintained during emergency response procedures				
	1.3 Immediate actions are performed in accordance with pilot's operating handbook (POH)				
	1.4 Landing area within gliding distance is selected and emergency procedures performed in accordance with aircraft flight manual (AFM)/POH				
	1.5 Flight profile is flown, from which a controlled landing could be achieved				
	1.6 Air traffic services or other agencies capable of providing assistance are advised of situation and intentions				
2. Perform forced landing following engine failure	2.1 Partial or complete engine failure condition is correctly recognised and appropriate emergency response identified				
	2.2 Control of aeroplane is maintained during emergency response procedures				
	2.3 Immediate actions are performed in accordance with POH				
	2.4 Recovery plan is formulated and explained, most suitable landing area within gliding distance selected and aeroplane maneuvered to nominated landing area				
	2.5 Consideration is given to restarting engine as required, and engine is restarted 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. Perform forced landing following engine failure continued	2.6 Optimal gliding flight profile is selected and flown, from which a controlled landing could be achieved				
	2.7 Air traffic services or other agencies capable of providing assistance are advised of situation and intentions				
	2.8 Passengers and/or flight crew members are updated on flight situation and are advised to adopt emergency positions, time permitting				
	2.9 Aeroplane is landed ensuring safest outcome if engine restart is not achieved				
3. Conduct precautionary search and landing	3.1 Flight circumstances are assessed and appropriate decision to perform a precautionary landing is made				
	3.2 Intentions are communicated to other traffic or agencies as required				
	3.3 Aeroplane is configured for inspection flight profile				
	3.4 Landing area is selected and inspected for approach, landing distance, surface and obstacle clearance to ensure aeroplane can be landed safely				
	3.5 Passengers and/or flight crew members are updated on flight situation and are advised to adopt emergency positions, time permitting				
	3.6 Aeroplane is landed and secured and passengers managed 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
4. Manage on-board abnormal and emergency situations	4.1 Control of aeroplane is maintained during emergency response procedures				
	4.2 Abnormal and emergency situations are correctly identified and managed in accordance with relevant emergency procedures and regulatory requirements				
	4.3 Appropriate emergency procedures are followed in accordance with AFM/POH and published procedures while maintaining control of aeroplane				
	4.4 Requirement for emergency evacuation of aeroplane is identified				
	4.5 Emergency evacuation of aeroplane is executed as required				



AVIZ0006 Manage Situational Awareness in Aircraft Flight

Units of Competency

Application

This unit involves the skills and knowledge required to manage situational awareness in aircraft flight in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes maintaining situational awareness, assessing situations and making decisions, setting priorities and managing tasks, and working with others in managing situational awareness.

This unit addresses aviation non-technical skill requirements (mental, social and personal-management abilities) 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 at time of publication.

Pre-Requisite Unit

Not applicable

Competency Field

Z – Situational awareness

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIZ0006>

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 AVIZ4001B Manage situation awareness in aircraft flight.



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 legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using required equipment
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- maintaining all necessary communications
- maintaining and managing an aircraft situation alone and in conjunction with others
- 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
- reporting and/or rectifying identified problems promptly in accordance with regulatory requirements and workplace procedures
- responding appropriately to cultural differences in the workplace
- selecting and using appropriate instruments, communications equipment and aids
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- sourcing and interpreting aviation weather forecast products appropriate to flight planning and navigation procedures
- transferring aircraft control between crew members
- 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:

- air navigation techniques
- aircraft communication procedures and protocols
- aircraft fuel usage rates
- in a Defence context, relevant Defence Orders and Instructions
- operational hazards identified when managing situational awareness and ways of controlling those hazards and associated risks
- principles of aircraft flight
- problems that may occur when managing situational awareness and action that can be taken to overcome these problems
- procedures for maintaining situational awareness
- procedures for transferring aircraft control between crew members
- relevant WHS and environmental procedures and regulations
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders
- traffic rules and procedures
- use of a navigational computer



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 protection equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIZ0006>

Assessment Requirements <https://training.gov.au/Training/Details/AVIZ0006>

AVIZ0006 Manage Situational Awareness in Aircraft 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. Maintain situational awareness	1.1 Continuous monitoring of all critical factors relevant to the safe progress of a flight is undertaken				
	1.2 Effective visual scan is applied and radio communication, traffic information and aircraft systems are used appropriately				
	1.3 Trends towards unsafe situations are recognised and appropriate corrective actions employed in accordance with workplace procedures and regulatory requirements				
	1.4 Breakdown in situational awareness is identified from errors or discrepancies and is rectified by ensuring safe operation of aircraft and response to situation				
2. Assess situations and make decisions	2.1 Problems are identified and analysed				
	2.2 Solutions are identified and risks are assessed				
	2.3 Course of action is chosen to ensure a safe outcome to a flight or manoeuvre				
	2.4 Plan of action is communicated and tasks allocated				
	2.5 Actions are taken to achieve optimum outcomes				
	2.6 Progress is monitored against plan				
	2.7 Plan is re-evaluated to achieve optimum outcomes				
	2.8 Operational changes and related risks are monitored and managed to ensure a safe outcome to a flight or manoeuvre				

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. Set priorities and manage tasks	3.1 Priorities and workload are organised to ensure completion of all tasks relevant to flight safety				
	3.2 Safe and effective operation of aircraft is prioritised ahead of competing tasks				
	3.3 Technology is appropriately used to reduce workload and to improve ability to perform mental and manipulative activities				
	3.4 Fixation on single actions/functions is avoided				
	3.5 Symptoms of fatigue are recognised and appropriate action taken to reduce its effects				
	3.6 Critical events and tasks are anticipated and completed in time available				
4. Work with others in managing situational awareness	4.1 Level of assertiveness is applied that ensures safe flight completion				
	4.2 Effective and efficient communications and interpersonal relationships are established and maintained with all stakeholders to ensure safe flight outcome				
	4.3 Passengers and crew members are encouraged to participate in and contribute to safe flight outcome				
	4.4 Appropriate action is taken in conjunction with others to cooperatively correct any identified unsafe situations that may develop during an aircraft flight				



AVIH0015 Plan a Flight Under Visual Flight Rules

Units of Competency

Application

This unit involves the skills and knowledge required to plan a flight under night visual flight rules (NVFR) in compliance with the relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes determining aircraft NVFR flight requirements, obtaining and using operational documents, preparing NVFR flight plans, making flight notifications and programming navigation systems.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to route planning and navigation 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

H – Route planning and navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

See below

Resource

<https://training.gov.au/Training/Details/AVIZ0006>

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 AVIH4012 Plan a flight under night visual flight rules.



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 aeronautical knowledge
- applying relevant legislation and workplace procedures
- calculating fuel requirements
- communicating effectively with others
- completing relevant documentation
- determining alternate aerodrome requirements and suitability for a night visual flight to a specified destination given relevant information, including Notice to Airmen (NOTAM)
- determining fuel quantity required for a night visual flight
- determining holding requirements due to weather, traffic or traffic advisory
- determining currency of operational documents
- determining meteorological forecasts required for a night visual flight
- determining whether a flight should proceed based on available meteorological forecasts
- extracting and applying relevant information from operational documents
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS) and relevant regulations
- interpreting and following operational instructions and prioritising work
- interpreting meteorological forecasts
- interpreting navigation charts
- 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 problems, faults and malfunctions promptly in accordance with workplace procedures
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- selecting suitable navigation aids/systems
- 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 and enroute holding procedures
- aerodrome lighting and curfew requirements for night operations
- aircraft fuel planning, including holding, alternate, fixed reserve and usage rates
- airspace requirements and procedures under night visual flight rules (NVFR) conditions
- critical point (CTA) and point of no return (PNR)
- documents required to be carried on a night visual flight
- factors affecting en route performance, range and endurance
- icing conditions and hazards
- in an Australian Defence Force (ADF) aviation context, relevant Defence Orders and Instructions
- limit of NVFR operations in a single-engine aircraft
- limitations and errors of navigations aids/systems
- meteorological considerations for a NVFR flight
- NVFR and procedures
- NVFR cruising levels, selection and hazards
- NVFR route planning requirements
- pilot medical fitness and qualifications necessary for night visual flight
- privileges of NVFR rating
- procedures for flight plan amendments and revised estimates for a night visual flight
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders pertaining to NVFR and flight planning requirements
- relevant WHS and environmental procedures and regulations
- requirements for an alternate aerodrome
- requirements for in-flight progress reports
- requirements for submission of flight notification and search and rescue watch (SARWATCH)
- specification of aircraft electrical lighting, radio communication and navigation equipment required for night visual flight
- specification of aircraft flight instruments required for night visual flight
- speed restrictions for night visual flight
- use of a navigational computer
- validity of a given meteorological forecast for a night visual flight

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 protection equipment (PPE) currently used in industry.

Unit of Competency <https://training.gov.au/Training/Details/AVIH0015>

Assessment Requirements <https://training.gov.au/Training/Details/AVIH0015>



AVIH0015 Plan a Flight Under Night Visual Flight Rules

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. Determine aircraft meets requirements for NVFR	1.1 Aircraft requirements for NVFR flight are determined				
	1.2 Flight and navigation instruments, minimum electrical lighting, navigation equipment and any other requirements fitted to aircraft are checked to ensure they are suitable and serviceable for NVFR flight				
2. Obtain and use current operational documents	2.1 Operational documents applicable to flight are obtained and checked for currency				
	2.2 Applicable information contained in documents for flight planning and management is interpreted and applied				
	2.3 Documents required for flight are stowed and their accessibility for pilot during flight is ensured				
3. Prepare flight plan for NVFR flight	3.1 Charts suitable for intended NVFR flight are selected and prepared				
	3.2 Applicable information to prepare a flight plan that details tracks, distances, times, altitudes to be flown and fuel requirements to reach destination are obtained, analysed and applied				
	3.3 Hazards are identified, risks are assessed, and hazard management implemented				
	3.4 Meteorological, airways facilities, aerodrome and Notice to Airmen (NOTAM) information applicable to planning and conducting a flight is obtained, interpreted and applied				
	3.5 Routes to optimise options in engine failure are planned				

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
4. Determine operational requirements	4.1 Suitability of aerodrome lighting for night operations is determined				
	4.2 Curfew requirements are complied with				
	4.3 Duration of flight is determined				
	4.4 Holding, alternate and reserve fuel requirements due to weather, navigation aid availability and aerodrome lighting are determined in accordance with operational requirements				
	4.5 Total fuel requirements are calculated				
5. Make flight notification	5.1 Flight notification is prepared for planned NVFR flight				
	5.2 Completed flight notification is submitted				
	5.3 Flight notification acceptance is confirmed				
6. Program navigation system	6.1 Data is prepared for transfer to approved airborne navigation system				
	6.2 Navigation data is loaded and checked				