



Australian Government

AVIW0040 Rappel from a helicopter

Release: 1

AVIW0040 Rappel from a helicopter

Modification History

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

Application

This unit involves the skills and knowledge required to rappel from a helicopter in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes applying aircraft safety procedures, preparing for rappelling operations, and emplaning and completing on-board procedures. It also includes rappelling from a hovering helicopter and de-servicing rappelling equipment.

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 across a variety of operational contexts within the Australian aviation industry.

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

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

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|---|---|
| 1 Apply aircraft safety procedures | <ul style="list-style-type: none">1.1 Personal protective clothing and equipment are secured for operating in and around a helicopter1.2 Helicopter is approached, entered and exited in a safe manner in accordance with workplace procedures and flight crew instructions1.3 Individual seating is occupied and restraint devices applied1.4 Identified hazards are communicated to rappel team members1.5 Flight crew instructions are followed1.6 Environmental conditions and alternative routes to and from helicopter are identified |
| 2 Prepare for rappelling operation | <ul style="list-style-type: none">2.1 Rappelling descent instructions are received and confirmed as required2.2 Workplace procedures, work health and safety requirements and safety control measures are applied2.3 Operational and rappel equipment, including personal protective equipment, is selected and fitted in accordance with workplace procedures2.4 Individual pre-flight check of rappel equipment is conducted in accordance with workplace procedures2.5 Damage to operational, rappel and safety equipment is reported and remedial action taken in accordance with workplace procedures |
| 3 Emplane and complete on-board procedures | <ul style="list-style-type: none">3.1 Aircraft is approached and emplaned in accordance with workplace procedures and flight crew instructions3.2 Ropes are secured to allocated rope attachment device, checked and prepared for flight3.3 Rappellers and operational equipment are secured prior to flight3.4 Flight crew orders and instructions are complied with3.5 Rappelling and operational equipment are monitored during flight |

- 3.6 Communications and directions are interpreted and relayed to rappellers
 - 3.7 Individual in-flight safety checks are conducted throughout flight
- 4 Rappel from helicopter**
 - 4.1 Rappelling exit positions are adopted under supervision of flight crew or rappel dispatcher
 - 4.2 Positions are resumed in aircraft on abort instruction from flight crew
 - 4.3 Aircraft is exited on instruction of flight crew or rappel dispatcher
 - 4.4 Descent is undertaken in a controlled manner in accordance with workplace procedures
 - 4.5 Aircraft emergency and rappelling contingency procedures are implemented as required
 - 4.6 Landing is conducted in a controlled manner in accordance with workplace procedures
 - 4.7 Rappel signals are communicated to flight crew once descent is complete
 - 4.8 On landing, rappeller is disconnected from rope and landing area is cleared in accordance with workplace procedures
 - 4.9 Equipment is gathered and taken to designated team assembly point
- 5 De-service rappel equipment**
 - 5.1 Area is cleared in preparation for de-servicing of rappel equipment in accordance with workplace procedures
 - 5.2 Rappelling and operational equipment is de-serviced and stowed in accordance with workplace procedures
 - 5.3 Record relevant pre- and post-task documentation in accordance with workplace procedures

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.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to AVIW0016 Rappel from a helicopter.

Links

Companion Volume Implementation Guides are found in VETNet' -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>

Assessment Requirements for AVIW0040 Rappel from a helicopter

Modification History

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Performance Evidence

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

- adapting to differences in equipment and operating environment in accordance with workplace procedures
- adopting rappel exit positions in accordance with the aircraft operator's manual
- applying control measures and required action to minimise, control or eliminate identified hazards
- approaching and exiting helicopter in a safe manner in accordance with workplace procedures and/or flight crew instructions
- communicating effectively with others, including the use of:
 - hand signals
 - interpersonal communications
 - radio
- completing relevant documentation
- conducting individual in-flight safety checks, including:
 - equipment checks
 - personal protective clothing and equipment checks
 - rappelling equipment checks
 - seatbelt/restraint device
- conducting rappel, operational and safety equipment individual pre-flight and in-flight checks
- descending and landing in a controlled manner in accordance with workplace procedures
- following relevant legislation and workplace procedures
- identifying, operating and controlling rappelling and operational equipment
- implementing work health and safety procedures and relevant regulations
- maintaining situational awareness when conducting rappelling operations
- modifying activities depending on workplace contingencies, situations and environments, including:
 - climate and weather variations
 - geographical and geological variations including sloping and unstable ground
 - ground conditions, including dust and other particles

- variations due to vegetation and urban structures
- monitoring and anticipating operational problems and hazards and taking appropriate action
- operating helicopter restraint, safety and emergency equipment
- 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/OHS 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:

- aircraft and emergency rappelling contingency procedures, including:
 - aircraft collision
 - aircraft crash landing
 - aircraft fire
 - aircraft malfunction prior to take-off
 - damaged or kinked rope
 - emergency landing procedures
 - emergency retrieval of rappeller/s
 - engine failure over landing site
 - loss of rappel control during descent
 - loss of visibility
 - rappeller collision with others or obstacles
 - rappeller hang-up
 - rappeller injury on landing
 - rappeller inversion
 - rappeller lost balance during transition (premature exit)
 - rappeller lost brake
 - rappelling rope caught in tree
- assembly point or marshalling area
- characteristics of helicopters, including safety features and operating requirements
- hazards that exist when rappelling from a helicopter
- manufacturer instructions for equipment used for rappelling from a helicopter
- problems that may occur when rappelling from a helicopter
- operational and rappel safety equipment operation, including:
 - commercial in-service rappelling harness

- communications equipment
- descending device/s
- descent rope
- incident response equipment
- individual load carrying equipment
- search and rescue equipment
- relevant documents, including:
 - induction and training materials
 - operations manuals
 - workplace procedures and instructions, and job specifications
- relevant legislation, regulations, workplace policy and procedures in relation to rappelling from a helicopter
- relevant WHS/OHS and environmental procedures and regulations
- risks that exist when rappelling from a helicopter.

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 it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate 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
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and PPE currently used in industry.

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