



Australian Government

PUAFIR217 Undertake helicopter winch operations

Release 2

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Modification History

| Release | TP Version | Comments |
|---------|------------|--------------------|
| 2 | PUA12 V2.1 | Editorial changes. |
| 1 | PUA12 V2 | New unit. |

Unit Descriptor

This unit covers the competency required to winch in and out from a helicopter when the degree of the slope or the nature of the ground or the presence of obstacles prohibits a safe landing or a hover-exit.

Aviation operations occur in a heavily regulated environment. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

This unit applies to personnel engaged in entering and exiting a helicopter via a winch.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

PUAFIR209B Work safely around aircraft

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

| ELEMENT | PERFORMANCE CRITERIA |
|--|---|
| 1. Prepare for winch–exit operations | <p>1.1 <i>Equipment</i> appropriate to helicopter winch operations is selected and prepared in accordance with organisational requirements.</p> <p>1.2 Appropriate clothing and equipment is selected and worn during winch operations in accordance with organisational requirements.</p> <p>1.3 Pre-flight checks on clothing and equipment are undertaken in accordance with organisational procedures.</p> <p>1.4 Damage to firefighting and safety equipment is reported to relevant supervisor for repair, replacement or disposal.</p> <p>1.5 Pre-flight aircraft safety and winch briefings are obtained from pilot or crew person and acted upon.</p> |
| 2. Load winch personnel and equipment into helicopter | <p>2.1 Firefighting equipment is assembled, weighed and recorded.</p> <p>2.2 Pilot is informed of weights.</p> <p>2.3 Equipment is loaded into helicopter and secured under supervision of pilot or flight crew.</p> <p>2.4 Personnel are secured in seatbelts in accordance with</p> |

- workplace instructions.
- 2.5 Instructions are obtained from pre-mission briefing and clarification of objectives and procedures is sought.
- 2.6 ***Pre-flight safety briefing*** is obtained from pilot or flight crew.
- 3. Prepare to winch–exit from helicopter**
- 3.1 Following clearance from pilot, instructions are received to prepare for exit.
- 3.2 Winch cable is attached and checked according to procedures.
- 3.3 Pre-descent checks are conducted in accordance with organisational requirements.
- 3.4 Seatbelt is released and then re-secured in accordance with organisational procedures and instructions received.
- 3.5 Movement towards the helicopter door and assumption of the winching position is undertaken in accordance with workplace instructions.
- 3.6 Clearance is obtained from the pilot to commence winch–exit.
- 3.7 ***Emergency procedures*** are conducted as required.
- 3.8 Emergency commands are responded to in accordance with organisational procedures.
- 4. Winch–exit from helicopter**
- 4.1 ***Winch–exit operations*** are undertaken and conducted in accordance with work health and safety requirements.
- 4.2 Actions are undertaken to minimise uncommanded movement, spinning or swaying during descent to the ground.
- 4.3 Appropriate landing technique is selected and used in accordance with ground and safety conditions.
- 4.4 Winch equipment is detached and the all-clear signal is communicated to pilot or crew person when landing activity is complete.
- 4.5 Assembly point for individual/s and equipment is identified and reached in accordance with organisational procedures.
- 4.6 Emergency procedures are conducted as required.
- 4.7 Emergency commands are responded to in accordance with organisational procedures.
- 5. Winch on board helicopter**
- 5.1 Individual/s and equipment are located at the nominated assembly point in preparation for winching on board.

- 5.2 Winching equipment is donned and attached to winch cable and all clear signal is communicated to the crew person in accordance with organisational procedures.
- 5.3 Actions to minimise uncommanded movement, spinning or swaying during ascent to the helicopter are undertaken in accordance with organisational procedures.
- 5.4 Movement on board the helicopter and towards the seat is undertaken in accordance with workplace instructions.
- 5.5 Seatbelts are secured until clearance is obtained to commence movement within the helicopter, in accordance with organisational safe work practices.
- 5.6 Winch cable is detached under instruction and handed to crew person.
- 5.7 Seatbelts remain secured until the helicopter has landed and clearance is obtained to commence movement within the helicopter.

6. Perform maintenance on equipment

- 6.1 Equipment is inspected and required maintenance is performed in accordance with organisational or manufacturer requirements.
- 6.2 Damage to equipment is reported to relevant supervisor for repair, replacement or disposal.
- 6.3 Maintenance or damage to equipment is documented and reported according to procedures.

Required Skills and Knowledge

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

Required Skills

- apply relevant workplace procedures including codes of practice, hazard policy and procedures, briefing procedures and work instructions, procedures relating to safe use of equipment, workplace procedures
- complete work systematically in accordance with safe operating procedures to minimise risk of injury to self, others or damage to equipment
- take action promptly and report accidents and incidents within regulatory and agency requirements
- take action to minimise movement during ascent and descent from helicopter
- work as part of a team in the transfer of personnel and equipment between helicopter and the ground

Required Knowledge

- appropriate personnel
- area/s and slope suitable to conduct operations
- briefing reports and format
- characteristics and operating principles of winch–exit equipment
- documentation requirements and reporting arrangements
- personal protective and safety equipment
- safe work practices when working in and around aircraft
- types of helicopters used by the agency for conducting winch–exit operations
- types of landing techniques
- winch and related equipment and materials

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- conduct winch operations in accordance with work health and safety procedures, legislative and operational guidelines
- prepare, take carriage of and stow equipment prior to, during and following exiting from the helicopter
- follow instructions and procedures within the helicopter
- apply correct procedures for entering, exiting, ascending and descending from the helicopter
- apply appropriate communication processes with crew
- apply relevant workplace procedures including codes of practice, hazard policy and procedures, briefing procedures and work instructions, procedures relating to safe use of equipment
- take action promptly – report accidents and incidents within regulatory and agency requirements
- complete work systematically in accordance with safe operating procedures to minimise risk of injury to self, others or damage to equipment

Consistency in performance

Competency should be demonstrated over time in a range of actual or simulated workplace environments.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in a simulated environment followed by assessment by an accredited operator on-the-job.

Specific resources for assessment

Access is required to:

- winch and related equipment and material
- personal protective and safety equipment
- area to conduct operations
- helicopter/s
- briefing reports
- appropriate personnel

Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an agency-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

| | |
|--|--|
| <i>Equipment</i> may include: | <ul style="list-style-type: none"> • axes • cabling systems • chain saws • communications equipment • couplings and attachments • food and drink containers • other hand tools • personal protective equipment • personal rucksacks • rake-hoes • various harness types |
| <i>Authorised personnel</i> may include: | <ul style="list-style-type: none"> • airbase/helibase manager • crew person • pilot |
| <i>Emergency procedures</i> may include: | <ul style="list-style-type: none"> • aborted operation • descent or landing injury • emergency retrieval • engine failure |
| <i>Winch-exit operations</i> may include: | <ul style="list-style-type: none"> • firefighting crew • helicopter crew • individual/s |

Unit Sector(s)

Not applicable.

Custom Content Section

Not applicable.