



Australian Government

Department of Education, Employment and Workplace Relations

PUAFIR311B Dispatch rappel personnel and equipment from a helicopter

Revision Number: 1

PUAFIR311B Dispatch rappel personnel and equipment from a helicopter

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor This unit covers the dispatching of operational rappel personnel and equipment from a hovering helicopter for fire suppression purposes.

Application of the Unit

Application of the Unit The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s PUAFIR209B Work safely around aircraft
PUAFIR212B Rappel from helicopter

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element.

Where bold italicised text is used, further information is detailed in the ***Required Skills and Knowledge*** and/or the ***Range Statement***. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Prepare operational dispatch equipment

- 1.1 Specialist *rappel* and dispatcher equipment is selected and prepared in accordance with the organisation's safe work *practices*
- 1.2 Appropriate rappel and *safety equipment* is donned in accordance with the organisation's requirements
- 1.3 Personal equipment pre-flight check is conducted in accordance with the organisation's requirements
- 1.4 Rappel and cargo ropes are loaded into the *helicopter* and secured
- 1.5 Equipment faults are reported to the relevant supervisor for rectification or replacement

2. Conduct helicopter pre flight check and preparation

- 2.1 Helicopter cabin area is prepared in accordance with the organisation's requirements
- 2.2 *Emergency* equipment is located and checked
- 2.3 Rappel rope attachment points are inspected and operational status confirmed
- 2.4 Rappel ropes are attached to rope attachment points
- 2.5 Helicopter *communications system* is tested and operational status confirmed
- 2.6 Helicopter equipment faults are reported to the pilot
- 2.7 Pre-mission brief details are confirmed with appropriate personnel

3. Load rappellers and equipment into helicopter

- 3.1 Weight of rappel personnel, rappel and firefighting equipment is obtained
- 3.2 Equipment is secured in helicopter according to weight and balance requirements
- 3.3 Rappellers are appropriately secured in seats
- 3.4 Personal attachment to helicopter is confirmed
- 3.5 Pre-flight operational checks and briefs are undertaken in accordance with the organisation's requirements

4. Conduct rappel site inspection

- 4.1 An overfly of prospective rappel site is undertaken in accordance with the organisation's requirements
- 4.2 Hazard assessment of proposed dispatch site is undertaken

| ELEMENT | PERFORMANCE CRITERIA |
|--|---|
| 5. Dispatch rappel crew and their equipment | <p>4.3 Pilot and rappel crew leader are informed as to site suitability</p> <p>4.4 Possible escape routes from fire are identified and conveyed to rappel crew</p> <p>5.1 Pre-dispatch checks of rappellers, attachment to rappel ropes and equipment is conducted in accordance with the organisation's requirements</p> <p>5.2 Pilot is directed to place helicopter over rappel site in accordance with the organisation's requirements</p> <p>5.3 Pilot's approval to conduct a rappel is obtained</p> <p>5.4 Rappel rope is attached and checked by dispatcher</p> <p>5.5 Rappellers are directed to helicopter skids using relevant hand signals in accordance with the organisation's requirements</p> <p>5.6 Rappeller and equipment descent and landing are monitored</p> <p>5.7 Communication is maintained with rappellers, pilot and control organisation</p> <p>5.8 Emergency <i>procedures</i> are invoked as required in accordance with the organisation's requirements</p> |
| 6. Retrieve personnel and equipment | <p>6.1 Appropriate ropes and equipment for the retrieval of rappellers are prepared</p> <p>6.2 Pilot is briefed on proposed retrieval operation</p> <p>6.3 Equipment and personnel extraction is conducted in accordance with the organisation's requirements</p> <p>6.4 Personnel extraction is conducted in accordance with the organisation's requirements</p> |
| 7. Complete rappel operations | <p>7.1 Debrief of rappellers and pilot is conducted in accordance with the organisation's requirements</p> <p>7.2 Relevant helicopter equipment is inspected and stowed and identified faults to helicopter equipment are reported to the pilot</p> <p>7.3 Rappel equipment and rope attachment points are inspected in accordance with the organisation's requirements</p> <p>7.4 Damage to rappel equipment is reported to appropriate personnel for assessment and/or repair/replacement or disposal in accordance</p> |

ELEMENT**PERFORMANCE CRITERIA**

with the organisation's procedures
7.5 Reports on operations are completed in
accordance with the organisation's requirements

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

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

Required Skills

confirmed competency as a rappeller

operation of rappel equipment

communication skill and signals

lowering and retrieving (including static extraction) rappelling techniques

Required Knowledge

basic helicopter safety

organisation rappel policy

organisation operational rappel policy

basic helicopter environment awareness

aircraft conning procedures

key roles and relevant responsibilities of helicopter crew

weight distribution principles and effects upon aircraft

emergency procedures

Evidence Guide**EVIDENCE GUIDE**

EVIDENCE GUIDE

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

For this unit it is essential that competence be demonstrated to:

- undertake operations in accordance with OH&S procedures, legislative and operational guidelines
- prepare, carriage and stow/seat equipment and rappellers prior to, during and following rappelling from the helicopter
- apply correct procedures and techniques for sequencing and controlling rappelling operations
- apply appropriate communication processes with crew persons and rappellers
- demonstrate inspection and maintenance procedures
- planning and deliver briefing/debriefing procedures

Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments

Shows evidence of application of relevant workplace procedures including:

- codes of practice
- hazard policy and emergency procedures
- flight instructions
- procedures relating to safe use of equipment
- house keeping procedures
- following workplace procedures
- action taken promptly - accidents and incidents reported within regulatory and organisation requirements
- work completed systematically in accordance with safe operating procedures to minimise risk of injury to self, others or damage to equipment

Context of and specific resources for assessment

Context of assessment

Assessment will take place in a simulated environment followed by assessment by a certified operator on the job encompassing a number of scenarios

Specific resources for assessment

EVIDENCE GUIDE

rappelling equipment and materials
personal protective and safety equipment
an area to conduct operations
helicopter
briefing reports and organisation procedural
documentation
appropriate personal
emergency information

**Guidance information for
assessment**

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

Range Statement

RANGE STATEMENT

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

Rappel and safety equipment must comply with may include

organisation requirements and relevant Civil Aviation Safety Authority regulations

Emergency situations may include

power loss
 engine failure
 rappeller caught in tree
 damaged or kinked rope
 descent or landing injury
 defective equipment
 intercom failure
 loss of height
 aborted operation
 personnel extraction
 cabin fire
 aircraft impact ground
 rope attachment failure

Appropriate equipment will typically include

fully body rappel harness
 static Kernmantle rappel ropes
 organisation specific descent device
 wander harness
 steel karabiner
 fire equipment packs
 communications helmet
 organisation protective overalls
 protective gloves
 hook knives

Procedures and practices will typically include

organisation operations manual supplement
 civil aviation orders

RANGE STATEMENT

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| | helicopter company operations manual supplement |
| Rappel site selection will be determined by | <ul style="list-style-type: none"> slope vegetation type and density canopy height weather conditions fire location hazards pilot ability |
| Dispatch of personnel and equipment may be conducted with | <ul style="list-style-type: none"> helicopter hovering above ground helicopter landed |
| Helicopter safety equipment will include | <ul style="list-style-type: none"> fire extinguishers emergency location beacon first aid kit survival kit emergency exits life vests |
| Communication systems may include | <ul style="list-style-type: none"> aeronautical radio intercom system organisation radio |
| Equipment checks are carried out | <ul style="list-style-type: none"> pre-flight pre-dispatch of rappellers pre-dispatch of equipment pre-retrieval of personnel and equipment post-flight |
| Reports to include | <ul style="list-style-type: none"> flight following crew safety, crew progress search and rescue |

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil