



Australian Government

Department of Education, Employment and Workplace Relations

PUADEFCA010B Perform a team free fall parachute descent carrying combat equipment

Release: 1

PUADEFCA010B Perform a team free fall parachute descent carrying combat equipment

Modification History

Not applicable.

Unit Descriptor

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This unit covers the competency required to perform a free fall parachute descent as part of a team carrying combat equipment that commences from an altitude below 12 000 feet above ground level and landing on a drop zone during day and night.

Team military free fall parachute descents are a method of deploying a team from an aircraft into an operational area and involve the exercise of both individual and team responsibilities. PUADEFCA006B Perform an individual free fall parachute descent and PUADEFCA007B Perform an individual free fall parachute descent carrying combat equipment are prerequisite units - the Performance Criteria in these units are exacerbated and more critical when operating as a member of a team.

Application of the Unit

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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	PUADEFCA006B Perform an individual free fall parachute descent PUADEFCA007B Perform an individual free fall parachute descent carrying combat equipment
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Employability Skills Information

Employability Skills	This unit contains employability skills.
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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 for a team free fall parachute descent	1.1 Instructions to conduct a team free fall parachute descent are received and details are confirmed with supervisor as necessary 1.2 Appropriate <i>equipment</i> is selected, <i>inspected for serviceability</i> , fitted and packed, in accordance with <i>standard procedures</i> 1.3 Unserviceable equipment is quarantined and reported in accordance with standard procedures 1.4 Conduct of the descent is rehearsed with team members prior to boarding the aircraft
2. Complete on board aircraft procedures	2.1 Aircraft is boarded, and self and equipment are positioned and secured in accordance with standard procedures 2.2 <i>Verbal and non-verbal communication</i> is used effectively with other personnel on board 2.3 <i>On board procedures</i> and <i>individual safety checks</i> are carried out when instructed by authorised personnel, in accordance with standard procedures 2.4 Signs and symptoms of <i>altitude induced conditions</i> in self and others are monitored and any anomalies are reported to supervisor
3. Exit from the aircraft and descend by free fall as a member of a team	3.1 Approved <i>team techniques</i> are used to exit the aircraft within <i>permitted tolerances</i> 3.2 Stability in free fall flight is established and maintained 3.3 When necessary, instability is recovered during exit and free fall team environment 3.4 Relative position within the team is established and maintained 3.5 <i>Situational awareness</i> is maintained 3.6 <i>Individual and team free fall positions and manoeuvres</i> are carried out in accordance with standard procedures 3.7 Verbal and non-verbal communication is used with other paratroopers as required
4. Control a ram-air canopy descent	4.1 Parachute is activated to open at a designated time or height in accordance with standard procedures and within permitted tolerances 4.2 Relevant drills are conducted to detect and rectify <i>activation malfunctions</i> and <i>routine opening problems</i> , in accordance with standard procedures

5. Land on a drop zone

- 4.3 Descent is controlled using *canopy control and manoeuvre techniques*
- 4.4 *Controllability checks* and *malfunction drills* are conducted as required
- 4.5 Descent flight path is maintained within permitted tolerances using appropriate *support equipment*
- 4.6 *Contingency and emergency situations* are addressed and correct drills are applied by team members to rectify the situation

- 5.1 Designated *drop zone marking and wind indicators* are identified and target approach is planned
- 5.2 *Target approach techniques* are applied in accordance with standard procedures
- 5.3 Combat equipment is lowered at the correct height during approach as required, and in accordance with standard procedures
- 5.4 Landing is completed in accordance with *environmental conditions* and within permitted tolerances
- 5.5 *Emergency landings* are completed in accordance with standard procedures
- 5.6 Harness release and drag procedures are applied in accordance with standard procedures and *drop zone* is cleared without adversely affecting other team members

6. Complete free fall post descent procedures

- 6.1 *Post descent de-servicing* of parachuting equipment is conducted in accordance with standard procedures
- 6.2 Performance during team free fall parachute descent is *reviewed*
- 6.3 *Documentation* is completed accurately and clearly in accordance with standard procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

- communicate effectively
- interpret instructions
- prepare individual parachuting and combat equipment for military free fall parachuting
- provide reports and appropriate documentation
- situational awareness

Required Knowledge

- activation and malfunction drills
- application of problem solving procedures
- canopy control techniques
- controllability checks
- descent emergency drills
- design, characteristics, construction and capabilities of free fall parachutes
- effect of environmental conditions on parachuting
- effect of turbulence on the canopy
- exit techniques
- free fall positions and manoeuvres
- health and safety hazards of parachuting
- inspection procedure/routine
- landing techniques
- log books and descent folders
- malfunction and emergency drills
- safety checks
- signs, symptoms and treatment of:
 - decompression illness
 - hyperventilation
 - hypothermia
 - hypoxia
- stability recovery procedures
- theory of flight and canopy control
- verbal and non-verbal communication

Evidence Guide

EVIDENCE GUIDE

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EVIDENCE GUIDE

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

Assessment must confirm the ability to:

- perform at least five free fall parachute descents as part of a team carrying combat equipment, by day and night, onto known or designated drop zones with the descent being from an aircraft at an altitude below 12 000 feet above ground level
- carry, as a minimum, the following combat equipment (or the equivalent in weight and size):
- individual load carrying equipment
- field pack and cover
- personal weapon
- demonstrate the following individual free fall positions and manoeuvres to maintain relative position to other paratroopers in the team environment:
- box position
- poised pull position
- forward glide
- back slide
- turns left and right
- hard arch/wide spread position
- wave-off
- heading maintenance
- identify the team leader and other team members after activating the canopy
- adopt and maintain correct position within a team stack during canopy transit
- adhere to instructions and briefings including specified timings.

Permitted tolerances are:

- achieving stability within 1 000 feet of exiting the aircraft
- achieving stability within 1 000 feet of becoming unstable during free fall
- completing exits with a deviation of no more than 45 degrees off the aircraft heading•
- completing turns within 45 degrees of the specified heading
- conducting the forward glide for a minimum of 5 seconds with no more than a 45 degree deviation off the specified heading
- free fall with a separation no greater than 25 metres

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- of the stack line
- activating the ripcord at the planned opening height with a deviation of no more than 45 degrees off the specified heading
- under canopy, maintaining a position no greater than 25 metres up and 25 metres to the rear of the paratrooper in front, by day
- under canopy, maintaining a position no greater than 50 metres up and 50 metres to the rear of the paratrooper in front, by night
- landing safely within 25 meters of the team leader by day
- landing safely within 50 metres of the team leader by night.

The five descents must achieve the following standards:

- exit from an aircraft from the ramp as a team member, at or above 7 500 feet above ground level, with less than 10 seconds free fall flight, followed by a team canopy transit to a designated drop zone
- exit from an aircraft from the side door as a team member, at or above 7 500 feet above ground level, with less than 10 seconds free fall flight, followed by a team canopy transit to a designated drop zone
- exit from an aircraft from the side door as a team member, at or above 7 500 feet above ground level, with greater than 10 seconds free fall flight, followed by a team canopy transit to a designated or known drop zone
- exit from an aircraft from the ramp as a team member, at or above 7 500 feet above ground level, with greater than 10 seconds free fall flight, followed by a team canopy transit to a designated or known drop zone
- exit from an aircraft from the ramp as a team member, at or below 5 500 feet above ground level, with less than 10 seconds free fall flight, followed by a team canopy transit to a designated or known drop zone.

Consistency in performance

Competency must be demonstrated over a minimum of five team parachute descents carrying combat equipment supported by simulated opening problems, malfunctions and other contingencies and emergencies.

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	<p>Assessment should be conducted in a timeframe and in a range of contexts and conditions that allows for evidence to be gathered on the correct application of free fall parachute skills and techniques as part of a team, carrying combat equipment, consistent with the range statement and the operating environment.</p>
Context of and specific resources for assessment	<p>Context of assessment Competency must be assessed during the preparation and performance of actual free fall parachute descents as part of a team, carrying combat equipment, although due to safety limitations, assessment of the individual's response to routine problems, malfunctions and other contingencies and emergencies will need to be undertaken in a simulated environment.</p> <p>Specific resources for assessment Access to:</p> <ul style="list-style-type: none">• aircraft with ramp and aircrew• parachutes• suitable air space• suitable land drop zone• parachute training facilities that provides adequate simulation• parachute packing facilities/matted undercover area• communications equipment• transport to and from airport and drop zone.
Guidance information for assessment	<p>Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.</p>

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.

Equipment may include

Combat equipment:

- field pack and cover
- harness equipment single point release (HESPR)
- individual load carrying equipment
- light stick
- navigation aids
- night vision equipment
- personal radio
- personal weapon and sling
- operational sustainment requirements including:
- ammunition
- spare clothing and field equipment
- rations
- water
- weapon sleeve

Parachute equipment:

- altimeter
- audible altitude warning device
- automatic activation device
- hook knife
- live drop parachute and reserve parachute
- personal apparel:
- boots
- coveralls or field uniform
- gloves
- goggles
- helmet

Inspecting equipment for serviceability include

Servicing instruments
Setting instruments

Standard procedures may include

Civil Aviation Safety Authority (CASA) manuals and regulations
Defence instructions and publications
Job guides, other publications
Manufacturers' handbooks, industry specifications and

RANGE STATEMENT

technical instructions
Occupational health and safety (OH&S) regulations
Operating procedures
Procedure manuals
Routine Orders
Written and verbal orders

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Verbal and non-verbal communication may include

Aircraft visual and audible warning devices
 Hand signals
 Panels and markers
 Plot boards
 Radio communications
 Voice commands

On board procedures may include

Fitting parachute equipment
 Performing drills or procedures directed by air crew or despatchers
 Safety checks
 Stop drop and aborted sortie procedures

Individual safety checks may include

Arming the automatic activation device
 Automatic activation device pin check
 Individual and team parachute equipment in aircraft

Altitude induced conditions may include

Decompression illness
 Hyperventilation
 Hypothermia
 Hypoxia

Team techniques to exit the aircraft may include

Team from the ramp:

- in single file
- in staggered file
- in pairs

Team from the side door:

- in single file from one side door
- in single file simultaneously from two side doors

Permitted tolerances may include

Achieving stability within 1 000 feet of exiting the aircraft
 Achieving stability within 1 000 feet of becoming unstable during free fall
 Completing exits with a deviation of no more than 45 degrees off the aircraft heading
 Completing turns within 45 degrees of the specified heading
 Conducting the forward glide for a minimum of 5 seconds with no more than a 45 degree deviation off the specified heading
 Free fall within a distance no greater than 25 metres of the stack line
 Activating the ripcord at the planned opening height with a deviation of no more than 45 degree off the

RANGE STATEMENT

specified heading

Under canopy, maintaining a position no greater than 25 metres up and 25 metres to the rear of the paratrooper in front, by day

Under canopy, maintaining a position no greater than 50 metres up and 50 metres to the rear of the paratrooper in front, by night

Landing safely within 25 metres of the team leader by day

Landing safely within 50 metres of the team leader by night

RANGE STATEMENT

Situational awareness may include

Monitoring altitude/height
Monitoring the position of team members, other teams and other paratroopers
Orientation to target, aircraft and other paratroopers

Individual and team free fall positions and manoeuvres may include

Back slide
Box position
Delta position
Forward glide
Hard arch/wide spread position
Heading maintenance
Poised pull position
Team manoeuvres - single and in pairs
Slow fall
Fast fall
Turns left and right
Wave-off

Activation malfunctions may include

A high speed malfunction:

- bag lock
- complete malfunction
- floating ripcord handle
- hard pull
- horseshoe malfunction
- pilot chute in tow
- premature release of the three rings
- streamer

A low speed malfunction:

- brake lock
- broken steering line
- broken suspension line
- line over
- pilot chute over front cell
- rip or tear in canopy
- slider hang-up above the cascades
- two canopies flying

Routine opening problems may include

End cell closure
Slider hang up below the cascades
Pilot chute hesitation
Premature brake release
Twists

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Canopy control and manoeuvre techniques may include

- Flying mode:
- full brakes
 - full glide
 - front riser/trim tab
 - half brakes
 - rear riser

- Stalls:
- steady state
 - dynamic

- Turns:
- half brake depression
 - half brake fly off
 - full brake
 - full glide
 - front riser
 - rear rise

Controllability checks include checking

- If canopy requires more than 50% opposite toggle to counter a turn
 If canopy stalls/collapses after conducting left or right 90 degree full glide turn
 If canopy stalls prior to 50% brakes

Malfunction drills apply when

Canopy is deemed uncontrollable

Support equipment may include

Communications equipment
 Navigation aids

Contingency and emergency situations may include

- Collisions:
- in free fall
 - under canopy
- Combat equipment moving or coming undone
 Emergency abandoning of aircraft
 Entanglements
 Loss of stability on exit or in free fall
 Tumbling and somersaulting during free fall
 Uncontrolled or involuntary turns in free fall

Drop zone marking and wind indicators may include

Alphanumeric marker panels
 Geographic features
 Smoke

RANGE STATEMENT

	Streamers and flags Wind sock
Target approach techniques may include	High wind approach Standard approach
Environmental conditions may include	Turbulence: <ul style="list-style-type: none"> • variable altitude • variable temperatures • variable weather conditions Wind: <ul style="list-style-type: none"> • high • low
Emergency landings may include landing in or on	Buildings Trees Vehicles Water Wire
Drop zone may include	Known or designated Open country
Post descent de servicing may include	Cleaning parachute and equipment Inspecting parachute and equipment, and identifying faults Rectifying or reporting defects with the parachute and/or combat equipment in accordance with standard procedures
Reviewing performance may include	Obtaining feedback from supervisors and individuals on parachuting performance and taking corrective action Viewing video of flight and correcting faults
Documentation may include	Descents folder Paratrooper log card

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil