



Australian Government

Department of Education, Employment and Workplace Relations

DEFLS005B Maintain and pack parachutes

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the competency required to maintain and pack parachutes.

This Unit of Competency is applicable to a person carrying parachutes and may include emergency or ejection parachutes.

Maintaining parachutes includes inspecting, testing, isolating faults, replacing, repairing and cleaning prior to packing.

This Unit of Competency applies to a person packing a parachute and requires the parachute to be inspected by a supervisor (who is competent in this Unit of Competency).

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

Pre-requisite Unit/s	Nil
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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. Maintain parachute

- 1.1 Parachute is inspected for serviceability in accordance with ***standard procedures***
- 1.2 Parachute is tested for serviceability in accordance with standard procedures and manufacturers' specifications
- 1.3 Identified ***faults*** beyond own authority to rectify are reported to supervisor and faulty parachute is quarantined
- 1.4 Unserviceable ***parts of the parachute*** are replaced to render parachute serviceable in accordance with standard procedures
- 1.5 ***Basic parachute repairs*** are completed in accordance with standard procedures
- 1.6 Parachute is cleaned in accordance with standard procedures
- 1.7 Parachute is presented for inspection by supervisor and work is not progressed until supervisor has completed inspections in accordance with standard procedures
- 1.8 Relevant documentation is completed in accordance with standard procedures

ELEMENT**PERFORMANCE CRITERIA****2. Pack parachute**

- 2.1 Parachute is packed for use in accordance with standard procedures
- 2.2 Parachute is presented for inspection by supervisor and work is not progressed until the supervisor has completed inspections in accordance with standard procedures
- 2.3 Relevant documentation is completed 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

- ability to relate to people from a range of social, cultural and ethnic backgrounds, and physical and mental abilities
- deliver briefings to personnel in relation to operating parachutes
- handle, store and organise transport of equipment
- information technology skills to access and input to documentation
- liaise with outside agencies relating to maintenance activities
- literacy skills for comprehending and interpreting documentation including:
 - aircraft documentation
 - maintenance documentation
 - survival and distress pyrotechnic documentation
 - maintenance and servicing schedules
 - flying schedules
 - technical publications
 - technical drawings
 - Material Safety Data Sheets (MSDS)
- operate and maintain personal protective equipment
- problem solving skills for a limited range of differing procedural circumstances
- raise and complete maintenance documentation
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use hand sewing techniques
- use relevant hand and power tools
- use testing and measuring equipment in accordance with approved methods

Required Knowledge

- approved cleaning methods for aviation life support equipment
- components of a parachute and their function
- critical nature of maintaining and packing parachutes i.e. risk of death
- different aviation trades and how they relate to each other
- environmental conditions that may affect parachutes
- environmental conditions that may affect parachute assemblies
- handling, storage and transit procedures relating to parachutes
- legal responsibilities
- methods of operations for a parachute
- modification requirements for parachutes
- packing tools and measuring equipment required to pack parachutes

REQUIRED SKILLS AND KNOWLEDGE

- physiological effects of flight
- procedures in relation to organisation and aviation industry
- purpose of different types of canopies
- quality systems and standards
- reading and interpreting specifications
- relevant legislation and procedures in relation to aviation industry
- relevant OH&S regulations/requirements, equipment, material and personal safety requirements
- relevant safety precautions
- repair limitations for parachutes
- requirements for a parachute servicing facility
- sequence of ejection
- tool control procedures
- types of corrosion and contamination that may affect parachute assemblies
- ultraviolet degradation
- use of aviation industry documentation
- use of maintenance documentation

Evidence Guide

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:

- correctly pack a minimum of three parachutes consecutively, and with no corrective action required by supervisor
- recognise limits of own authority
- replace canopy/harness which includes line sequence checks
- correctly repair a tear/s in parachute canopy material through patching
- inspect, test and replace unserviceable parts of a quick release fitting
- recognise a range of faults and their serviceability limits and repair within limitations/tolerances.

The range of faults must include:

- tears
- contamination
- rigging line sequence
- incorrect manufacture
- verification of expiry date of parachute components

Consistency in performance

Competency should be demonstrated over time with a range of parachute packing and maintenance activities.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated work environment, in accordance with all relevant legislation and Defence requirements.

Specific resources for assessment

Access to parachutes, parachute canopy material, a sewing machine, tools and equipment for packing and maintaining parachutes.

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.

Standard procedures may include

Australian Standards
Equipment manufacturers' specifications and procedures
Industry practices
Maintenance schedules
Occupational health and safety (OH&S) requirements
Organisational instructions/journals
Regulatory requirements

Faults may include

Broken stitching
Broken quick release fitting springs
Contamination
Corrosion (e.g. fittings)
Damaged hardware
Damaged quick release fitting screws
Excessive wear
Expired parachute components
Frayed lines
Incorrect manufacture
Pulled threads
Rigging line sequence
Seised quick release fitting lugs
Stretched lines
Tears in parachute
Ultraviolet degradation

Parts of the parachute may include

Canopy
Hardware (e.g. buckles, eyelets, connector links)
Harness
Parachute housing (e.g. pack)
Quick release fitting
Rigging lines

Basic parachute repairs may include

Broken stitching
Corrosion (e.g. fittings)
Damaged hardware

RANGE STATEMENT

Frayed lines
Pulled threads
Tears in parachute

Unit Sector(s)

Not applicable.