



Australian Government

MEALSU0005 Maintain and pack parachutes

Release: 1

MEALSU0005 Maintain and pack parachutes

Modification History

Release 1. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Range of Conditions removed, and relevant information moved to Assessment Requirements. Assessment Requirements clarified. Supersedes and is equivalent to MEA505 Maintain and pack parachutes.

Application

This unit describes the skills and knowledge required to maintain and pack parachutes. Maintenance involves inspection, testing, fault diagnosis, parts replacement, repairs completion and cleaning during the performance of scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

The unit applies to person-carrying parachutes, including emergency and ejection parachutes. It also applies to ballistic parachutes used for recovering light aircraft.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Civil Aviation Safety Authority (CASA) and the Defence Aviation Safety Authority (DASA).

Any other relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

MEA107 Interpret and use aviation maintenance industry manuals and specifications

MEA118 Conduct self in the aviation maintenance environment

MEA154 Apply work health and safety practices in aviation maintenance

MEA155 Plan and organise aviation maintenance work activities

MEA156 Apply quality standards during aviation maintenance activities

MEA157 Complete aviation maintenance industry documentation

MEA158 Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance.

MEALSU0010 Operate and maintain sewing machines and overlockers

MSFSF2002 Machine sew materials

Competency Field

Aircraft life support

Elements and Performance Criteria

Elements	Performance Criteria
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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain parachute	1.1 Inspect parachute or serviceability in accordance with standard procedures 1.2 Test parachute for serviceability in accordance with standard procedures and manufacturer's specifications 1.3 Report identified faults beyond own authority to rectify to supervisor and quarantine faulty parachute 1.4 Replace unserviceable parts of the parachute to render parachute serviceable in accordance with standard procedures while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and items of personal protective equipment (PPE) 1.5 Complete basic parachute repairs in accordance with standard procedures 1.6 Clean parachute in accordance with standard procedures 1.7 Present parachute for inspection by supervisor in accordance with standard procedures 1.8 Complete and process maintenance documentation in accordance with standard enterprise procedures 1.9 Clean and perform required maintenance on equipment and tools used in accordance with standard enterprise procedures
2. Pack parachute	2.1 Pack parachute for use in accordance with standard procedures 2.2 Present parachute for inspection by supervisor in accordance with standard enterprise procedures 2.3 Complete and process relevant documentation in accordance with standard enterprise procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret a wide range of procedures and manuals.
- Numeracy skills to interpret technical information including drawings.
- Writing and oral communication skills to explain operation of parachute and complete documentation.

Other foundation skills essential to performance are explicit in the performance criteria of this unit of competency

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEA505 Maintain and pack parachutes.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>

Assessment Requirements for MEALSU0005 Maintain and pack parachutes

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Performance Evidence

There must be evidence the candidate has completed all the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- maintain and pack parachutes during scheduled or unscheduled maintenance on the following tasks:
 - correctly pack a minimum of three parachutes consecutively and without the need for corrective action by the supervisor
 - recognise the limits of own authority
 - replace a canopy or harness, and perform line sequence tests
 - correctly repair a tear in parachute canopy material through patching, showing both hand and machine sewing skills
 - inspect, test and replace unserviceable parts of a quick release fitting
 - recognise a range of faults and their serviceability limits and repairing within limitations or tolerances, including one example from each type of fault from the following:
 - broken stitching
 - corrosion (e.g. fittings)
 - damaged hardware
 - frayed lines
 - pulled threads
- handle, store and organise transport of equipment used in parachute maintenance and packing
- apply procedures, cleanliness requirements and safety precautions at all times and as relevant to the tasks above.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- relevant enterprise procedures and maintenance publications, including:
 - equipment manufacturers' specifications and procedures
 - industry practices

- safety manuals
- maintenance schedules
- work instructions
- maintenance organisation manuals
- standing instructions
- Commonwealth, state and territory work health and safety (WHS) legislation, regulations, codes and procedures for parachute maintenance, including selecting and using personal protective equipment (PPE)
- Australian Standards for oxygen masks
- Defence Aviation Safety Authority (DASA) and Civil Aviation Safety Authority (CASA) regulations and instructions
- how to obtain and use material safety data sheets (MSDSs)
- critical nature of maintaining and packing parachutes, i.e. risk of death
- approved cleaning methods for aviation life support equipment
- components of a parachute and their function, including:
 - canopy
 - hardware (e.g. buckles, eyelets, connector links)
 - harness
 - parachute housing (e.g. pack)
 - quick release fitting
 - rigging lines
- parachute assembly materials of construction
- environmental conditions that may affect parachutes and parachute assemblies including ultraviolet degradation
- typical faults that may affect parachutes and parachute assemblies, including broken stitching
 - broken quick release fitting springs
 - contamination
 - corrosion of metal parts
 - damaged hardware
 - damaged quick release fitting screws
 - excessive wear
 - expired parachute components
 - frayed lines
 - incorrect manufacture
 - pulled threads
 - incorrect rigging line sequence
 - seized quick release fitting lugs
 - stretched lines
 - tears in parachute
 - ultraviolet (UV) degradation

- handling, storage and transit procedures relating to parachutes
- physiological effects of flight
- sequence of ejection
- operation of person carrying parachutes
- operation of ballistic parachutes in aircraft recovery
- purpose of different types of canopies
- modification requirements for parachutes
- requirements for a parachute servicing facility
- operation of testing and measuring equipment and tools used to maintain parachutes
- repair limitations for parachutes
- packing tools and measuring equipment required to pack parachutes.
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Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (DASA and CASA) and maintenance stakeholders and must be rigorously observed.

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in maintaining and packing parachutes. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to maintaining and packing parachutes
 - materials tools and equipment specified in the maintenance manuals and applicable procedures
 - general- and special-purpose tools and items of ground support equipment.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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