



Australian Government

MEALSU0002 Maintain and fit helmets

Release: 1

MEALSU0002 Maintain and fit helmets

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 MEA502 Maintain and fit helmets with amended prerequisite codes.

Application

This unit describes the skills and knowledge required to maintain and fit helmets worn by aircrew and passengers. Maintenance involves inspection, testing, fault diagnosis, parts replacement, cleaning and functional testing. Fitting involves adjusting the helmet to correctly fit an individual. Work may be performed individually or as part of a team.

Maintaining and fitting ancillary helmet equipment, such as illumination systems, night vision equipment and oxygen masks, is not covered by this unit.

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

MEA295 Use electrical test equipment to perform basic electrical tests on aircraft and components

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 helmet	1.1 Inspect helmet for serviceability in accordance with standard procedures 1.2 Test helmet 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 helmet 1.4 Replace unserviceable parts of the helmet in accordance with standards procedures while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDSs) and items of personal protective equipment (PPE) 1.5 Test communication system components in accordance with standard procedures 1.6 Clean helmet is cleaned in accordance with standard procedures 1.7 Present helmet 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, and dispose safely of hazardous materials, in accordance with standard enterprise procedures
2. Fit helmet	2.1 Explain fitting process to participant to achieve optimal fit 2.2 Measure participant to select appropriate size helmet based on available information 2.3 Adjust components of helmet to optimise fit 2.4 Verify helmet fit from participant and supervisory feedback 2.5 Complete and process required fitting-related 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

- Writing and oral communication skills to explain the fitting process 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 MEA502 Maintain and fit helmets.

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 MEALSU0002 Maintain and fit helmets

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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 at least three unserviceable helmets, covering a representative range of maintenance tasks, and correctly fit helmets to at least three individuals by adjusting at least one item from each group:
 - communications system (e.g. ear cup and microphone where fitted)
 - comfort system (e.g. pads)
 - retention system (e.g. strap)
 - sizing system (e.g. liner)
 - visor system
- use applicable tools and maintenance documentation for the tasks above to:
 - solder helmet electronic or electrical components
 - test the operation of helmet electronic or electrical components, including earphones, microphones, electric cables and switches
 - replace unserviceable components (any of comfort pads, ear cups and ear cup pads, liners, retention straps and visors) in accordance with approved procedures including hand sewing, the use of hazardous chemicals for ear cups and liners, and adhesives and thermal oven operation
 - select and use appropriate helmet cleaning materials
- tie each of the following knots to adjust helmet-fitting:
 - reef knot
 - bowline
 - thumb knot
 - half hitch
- apply procedures, cleanliness requirements and safety precautions at all times and as relevant to the maintenance and fitting tasks being performed 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 helmet maintenance and selecting and using personal protective equipment (PPE)
- Australian Standards for oxygen masks
- Defence Aviation Safety Authority (DASA) regulations and instructions
- how to obtain material safety data sheets (MSDSs)
- components of a helmet and their function
- helmet operation in relation to flight
- physiological effects of flight
- aircraft crash dynamics
- critical nature of maintaining and fitting helmets
- need to regularly assess correct fitment of helmets
- helmet fitting procedures
- G forces
- forces of ejection
- basic electrical principles
- environmental conditions that may affect helmets
- approved cleaning methods for aviation life support equipment
- handling, storage and transit procedures relating to life support equipment
- typical faults that may affect helmets, including:
 - contamination
 - corrosion
 - cracks
 - delamination
 - fraying
 - incorrect manufacture
 - intermittent communication
- modification requirements for helmets
- helmet repair procedures and limitations
- soldering techniques
- operation of testing and measuring equipment and relevant specialist tools including thermal oven operation
- use and storage of adhesives.

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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 fitting helmets. 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 fitting helmets
 - general- and special-purpose tools and items of ground support.

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