



Australian Government

Department of Education, Employment and Workplace Relations

DEFLS002B Maintain and fit helmets

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to maintain and fit helmets that are capable of housing communications equipment.

Maintaining a helmet includes inspecting, testing, isolating faults, replacing or sending away for repair, cleaning and testing prior to placing the item back into service. Fitting a helmet includes adjusting the helmet to fit the individual because the item is not an off-the-shelf issue.

Maintaining and fitting *ancillary helmet equipment* is undertaken independently of the helmet and consequently is not covered by 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

Prerequisite Unit/s Nil

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 helmet

- 1.1 Helmet is inspected for serviceability in accordance with **standard procedures**
- 1.2 Helmet 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 helmet is quarantined
- 1.4 Unserviceable **parts of the helmet** are replaced to render helmet serviceable
- 1.5 **Communication system components** are tested in accordance with standard procedures
- 1.6 Helmet is cleaned in accordance with standard procedures
- 1.7 Helmet suit 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

2. Fit helmet

- 2.1 Fitting process is explained to the participant so that optimal fit can be achieved through relevant feedback
- 2.2 Participant is measured to select appropriate size helmet
- 2.3 **Components** of helmet are adjusted to optimise fit
- 2.4 Helmet fit is verified through participant feedback and supervisor approval
- 2.5 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
- calculate dimension and allowable dimension variations
- deliver briefings to personnel in relation to operating, donning/doffing and fitting of helmets
- dispose of hazardous chemicals in accordance with approved methods and procedures
- 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 which may include:
 - 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
- solder helmet electronic/electrical components
- test helmet electronic/electrical components
- tie various types of knots including:
 - reef knot
 - bowline
 - thumb knot
 - half hitch
- use hand-sewing techniques
- use hazardous chemicals and adhesives in relation to maintenance of helmets
- use relevant hand tools
- use relevant power and machine tools
- use testing and measuring equipment in accordance with approved methods
- work with others and in a team by recognising dependencies and using cooperative

REQUIRED SKILLS AND KNOWLEDGE

approaches to optimise workflow and productivity

Required Knowledge

- aircraft crash dynamics
- approved cleaning methods for aviation life support equipment
- components of a helmet and their function
- critical nature of maintaining and fitting helmets
- different aviation trades and how they relate to each other
- Electrical principles
- environmental conditions that may affect helmets
- forces of ejection
- 'G' forces
- hand-sewing techniques
- handling, storage and transit procedures relating to life support equipment
- helmet operation in relation to flight
- legal responsibilities
- modification requirements for helmets
- need to regularly assess correct fitment of helmets to personnel
- operation of a thermal oven
- operation of testing and measuring equipment and tools used to maintain helmets
- physiological effects of flight
- procedures in relation to organisation and aviation industry
- quality systems and standards
- reading and interpreting specifications
- relevant legislation and procedures in relation to the aviation industry
- relevant OH&S regulations/requirements, precautions, equipment, material and personal safety requirements
- repair limitations for helmets
- safety precautions associated with:
 - working with composite materials (i.e. Kevlar and fibreglass helmet shells)
 - use of adhesives
 - use of a thermal oven (i.e. fitment of helmet thermoplastic liners)
- soldering techniques
- storing adhesives
- techniques used to fit helmets
- tool control procedures
- types of corrosion and contamination that may affect helmets
- use of aviation industry documentation
- use of helmets
- use of maintenance documentation
- various types of helmet shell composition

REQUIRED SKILLS AND KNOWLEDGE

Evidence Guide

EVIDENCE GUIDE

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

Assessment must confirm the ability to correctly fit helmets to a minimum of three different people with no corrective action required by supervisor; to recognise limits of own authority; to recognise a range of faults including incorrect manufacture; and to correct a minimum of three unserviceable helmets.

Consistency in performance

Competency should be demonstrated over time with a range of different fittings and maintenance activities.

Context of and specific resources for assessment**Context of assessment**

Competency should be assessed in the workplace or in a simulated workplace environment.

Specific resources for assessment

Access to helmets, three live participants, ancillary equipment, tools and equipment for fitting and maintaining helmets.

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.

Ancillary helmet equipment may include	Illumination systems
	Night vision equipment
	Oxygen masks
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
Faults may include	Regulatory requirements
	Contamination
	Corrosion
	Cracks
	Delamination
	Fraying
	Incorrect manufacture
	Intermittent communication
	Scores/scratches
Parts of the helmet may include	Comfort pads
	Ear cup
	Ear cup pads
	Liner
	Retention straps
	Visor
Communication system components may include	Earphones
	Electric cables
	Switches

RANGE STATEMENT**Components may include**

Communication system (e.g. ear cup)
Comfort system (e.g. pads)
Retention system (e.g. strap)
Sizing system (e.g. liner)
Visor system

Unit Sector(s)

Not applicable.

Corequisite Unit/s**Co-requisite Unit/s**

Nil