



**Australian Government**

# **MEA601A Maintain aircraft egress systems**

**Release 3**

## **MEA601A Maintain aircraft egress systems**

### **Modification History**

Release 3 - Imported unit code in prerequisites updated to current version - no change in outcomes.

Release 2 - Minor formatting and editorial changes made. Prerequisite unit version codes updated. Unit version code updated in unit descriptor.

### **Unit Descriptor**

This unit of competency is part of the Aeroskills Aircraft Armament Certificate IV training pathway. It covers the competencies required to maintain aircraft egress systems that contain explosive ordnance.

This unit was developed from PUADEFEO717C Maintain aircraft egress systems and is equivalent to that unit. This unit is used in workplaces that operate under the airworthiness regulatory systems of the ADF and CASA.

### **Application of the Unit**

This unit covers the maintenance of aircraft egress systems that contain explosive ordnance.

Maintenance covers the entire egress system, including the explosive ordnance. It involves the installation and removal of safety devices, disarming and rearming, inspecting, testing, replacing parts, cleaning and painting.

### **Licensing/Regulatory Information**

Not applicable.

## Pre-Requisites

|           |                                                                                              |
|-----------|----------------------------------------------------------------------------------------------|
| MEA101B   | Interpret occupational health and safety practices in aviation maintenance                   |
| MEA103B   | Plan and organise aviation maintenance work activity                                         |
| MEA105C   | Apply quality standards applicable to aviation maintenance processes                         |
| MEA107B   | Interpret and use aviation maintenance industry manuals and specifications                   |
| MEA108B   | Complete aviation maintenance industry documentation                                         |
| MEA109B   | Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance |
| DEFEO101D | Work safely with explosive ordnance                                                          |

## Employability Skills Information

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 performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide. |
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## Elements and Performance Criteria

- |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Fit and remove safety devices                         | 1.1. Safety devices are fitted to <b>aircraft egress systems</b> in accordance with standard operating and maintenance procedures<br>1.2. Safety devices are removed from aircraft egress systems and are correctly stowed in accordance with standard operating and maintenance procedures                                                                                                                                                                                                                 |
| 2. Prepare for aircraft egress system maintenance        | 2.1. <b>Applicable maintenance documentation</b> is identified and obtained<br>2.2. Aircraft egress system maintenance requirements are identified from applicable documentation<br>2.3. Special tools and equipment required for the maintenance tasks are obtained and positioned                                                                                                                                                                                                                         |
| 3. Inspect, test and maintain aircraft egress systems    | 3.1. Aircraft egress systems are inspected in accordance with applicable maintenance documentation<br>3.2. Relevant tests are safely conducted and results are recorded in accordance with standard enterprise procedures<br>3.3. <b>Required maintenance tasks</b> are performed in accordance with applicable maintenance documentation and standard enterprise procedures<br>3.4. Emergency and contingency procedures are performed, as required                                                        |
| 4. Remove and install aircraft egress system components  | 4.1. <b>Non-explosive egress system components</b> are removed and installed in accordance with applicable maintenance documentation and standard enterprise procedures<br>4.2. <b>Explosive egress system components</b> are removed and installed in accordance with applicable maintenance documentation and standard enterprise procedures                                                                                                                                                              |
| 5. Complete aircraft egress system maintenance operation | 5.1. Removed non-explosive components are tagged and packaged for transportation in accordance with standard enterprise procedures<br>5.2. Removed explosive components are tagged and packaged in accordance with procedures for packaging and transportation of explosive ordnance/dangerous goods<br>5.3. Special tools and equipment are maintained in accordance with standard enterprise procedures<br>5.4. Documentation and records are completed in accordance with standard enterprise procedures |

## **Required Skills and Knowledge**

### **Required skills**

Look for evidence that confirms skills in:

- applying relevant OHS procedures, including selection and use of MSDS and PPE
- fitment of applicable safety devices
- egress system disarming and rearming
- safely handling explosive components
- conducting tests involving continuity, gauging and measuring
- identifying and selecting applicable items of specialist equipment and tools
- using maintenance documentation, hand tools, specialist tools and equipment to perform egress system maintenance tasks
- preparing removed explosive components for safe storage or transportation

### **Required knowledge**

Look for evidence that confirms knowledge of:

- egress system construction, layout and operation
- operation, characteristics and limitations of aircraft egress systems
- effect of environmental conditions
- colour coding, marking and labels associated with egress systems
- operation, characteristics and limitations of specialist tools and equipment
- egress system test procedures
- safety precautions associated with explosive components
- requirements for handling and disposal of explosive components
- general OHS procedures applicable to egress system maintenance, including applicable PPE
- how to obtain and use MSDS

## Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

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| <b>Overview of assessment</b>                                                                       | A person who demonstrates competency in this unit must be able to maintain aircraft egress systems and system components while observing all relevant safety precautions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b> | <p>The underlying skills inherent in this unit should be transferable across a range of aircraft egress system maintenance activities. It is essential that assessment confirms the ability to comply with organisational safety requirements and appropriate legislative and regulatory requirements while maintaining aircraft egress systems. The ability to work safely within an explosive ordnance environment, conduct applicable tests and maintain relevant documentation is critical.</p> <p>Evidence of transferability of skills and knowledge related to egress system maintenance is essential. This is to be established through demonstration of the ability to:</p> <ul style="list-style-type: none"> <li>• render the system safe</li> <li>• perform relevant inspections and tests, replace components (including disarming and re-arming the system)</li> <li>• perform appropriate maintenance tasks.</li> </ul> <p>The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.</p> <p>A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the unit of competency are being achieved under routine supervision on a range of tasks that is representative of the maintenance tasks, tests and the range of non-explosive and explosive components listed in the Range Statement. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.</p> |
| <b>Context of and specific resources for assessment</b>                                             | Competency should be assessed in the workplace or simulated workplace using materials, tools and equipment specified in the maintenance manuals and applicable procedures. It is also expected that general and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                            | <p>special purpose tools and ground support equipment would be used where appropriate.</p> <p>Access will also be required to facilities and resources used in the storage, distribution or maintenance of explosive ordnance, including a licensed explosive site.</p> |
| <b>Method of assessment</b>                |                                                                                                                                                                                                                                                                         |
| <b>Guidance information for assessment</b> |                                                                                                                                                                                                                                                                         |

## 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, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicable maintenance documentation</b> | <p>Applicable maintenance documentation may include:</p> <ul style="list-style-type: none"> <li>• defect reports</li> <li>• maintenance releases containing details of unserviceabilities</li> <li>• modification orders or leaflets</li> <li>• service bulletins</li> <li>• instructions issued by airworthiness authorities</li> <li>• work instructions</li> <li>• servicing schedules</li> <li>• maintenance manuals</li> <li>• standards and drawings</li> <li>• applicable airworthiness and explosive ordnance regulations</li> <li>• standing instructions</li> <li>• quality manuals</li> <li>• safety manuals</li> <li>• maintenance and explosives records</li> </ul> |
| <b>Required maintenance tasks</b>           | <p>Required maintenance tasks may include:</p> <ul style="list-style-type: none"> <li>• arming and de-arming</li> <li>• cleaning</li> <li>• component changes</li> <li>• painting</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Egress system components</b>             | <p>Non-explosive components may include:</p> <ul style="list-style-type: none"> <li>• barometric and gravitational sensing components</li> <li>• canopy jettison components</li> <li>• catapults</li> <li>• ejection seat railings and guns</li> <li>• inertia reels</li> <li>• parachute assemblies</li> <li>• pressure source bottles</li> <li>• survival equipment</li> </ul> <p>Explosive components may include:</p> <ul style="list-style-type: none"> <li>• ejection handles</li> </ul>                                                                                                                                                                                   |

|                                    |                                                                                                                                                                                                                                                                                                            |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    | <ul style="list-style-type: none"><li>• ejection seat cartridges and initiators</li><li>• explosive connectors</li><li>• explosive delay elements</li><li>• flexible linear shaped charges</li><li>• rocket motors</li><li>• shielded mild detonating cord</li><li>• special function cartridges</li></ul> |
| <b>Application</b>                 | Application of this unit may relate to: <ul style="list-style-type: none"><li>• scheduled or unscheduled maintenance activities</li><li>• individual or team-related activities</li></ul>                                                                                                                  |
| <b>Procedures and requirements</b> | Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise                                                                                                                                                                                                 |

## Unit Sector(s)

Aviation maintenance

## Competency field

Not applicable.

## Co-requisite units

Not applicable