



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MEA416A Apply aircraft identification markings, graphics and decals**

**Revision Number: 2**

## **MEA416A Apply aircraft identification markings, graphics and decals**

### **Modification History**

Minor formatting and editorial changes made. Prerequisite unit version code updated.

### **Unit Descriptor**

This unit covers the competencies required to apply aircraft identification markings, graphics and decals. No licensing requirements apply to this unit at the time of publication, but compliance with legislation and regulations governing handling and disposal of hazardous materials is included in the 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 requires application of skills and knowledge relating to preparation and application of aircraft markings, graphics and decals.

Applications include fixed and rotary wing aircraft.

### **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

## 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. Interpret requirements and prepare materials for aircraft markings, graphics and decals
  - 1.1. Requirements for *markings, graphics* and decals are determined from maintenance documentation, enterprise procedures and maintenance publications
  - 1.2. Equipment for task is identified and gathered
  - 1.3. Aircraft or component identification is matched with relevant maintenance documentation
  - 1.4. Decals are prepared and matched with documentation
  - 1.5. Markings or marking stencils are manufactured in accordance with drawings and specifications
  - 1.6. Graphics or graphic stencils are manufactured in accordance with drawings and specifications
2. Prepare for application of aircraft markings and graphics
  - 2.1. *OHS requirements* are identified and complied with and PPE is checked for correct fit and function
  - 2.2. *Materials and equipment* required for application of markings and graphics are assembled
  - 2.3. Surface on which marking or graphic will be applied is cleaned in accordance with enterprise procedures
  - 2.4. Marking or graphic position is accurately determined and masking is applied, where necessary
3. Apply aircraft markings, graphics and decals
  - 3.1. Environmental requirements for the *application* of markings and graphics are established in accordance with enterprise procedures
  - 3.2. Markings and graphics are applied in accordance with enterprise procedures
  - 3.3. Rework, gloss measuring and thickness measuring are performed, where applicable, in accordance with enterprise procedures
  - 3.4. Masking materials are removed, where applicable, and final clean-up is performed, as required
  - 3.5. Decal positions are accurately determined, surfaces cleaned and decals applied in accordance with enterprise procedures
  - 3.6. Documentation is completed in accordance with standard enterprise procedures
4. Clean up work area and maintain equipment
  - 4.1. Material that can be reused is collected and correctly stored
  - 4.2. Waste material is removed and disposed of or stored in accordance with *legislative, regulatory and enterprise procedures*
  - 4.3. Equipment is cleaned in accordance with enterprise

- procedures or manufacturer's instructions
- 4.4. Equipment is checked for serviceability and unserviceable items are dealt with in accordance with enterprise procedures
- 4.5. Tools are cleaned and maintained in accordance with enterprise procedures
- 4.6. Work area is cleaned and inspected for serviceable condition

## Required Skills and Knowledge

### Required skills

Look for evidence that confirms skills in:

- applying OHS procedures relating to marking and graphic application, including the selection and correct use of PPE
- using procedures, maintenance manuals and finishing scheme drawings to determine the requirements for markings, graphics and decals
- selecting and applying masking and barrier materials
- manufacturing markings and graphics
- manufacturing stencils for the application of markings and graphics
- using MSDS
- cleaning of surfaces before and following the application of markings and graphics
- correctly disposing of waste materials
- cleaning and maintaining equipment and tools

### Required knowledge

Look for evidence that confirms knowledge of:

- relevant enterprise procedures, maintenance publications, drawings and specifications
- manufacturer's specifications and directions
- OHS procedures relating to the application of markings and graphics to aircraft, including PPE and fume extraction
- how to obtain MSDS
- types of chemicals used for cleaning and surface preparation
- manufacturing methods for stencils
- types of masking and barrier materials
- cleaning methods following application of markings and graphics
- environmental legislation and regulations relating to the storage, use and disposal of hazardous materials

## Evidence Guide

<p>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.</p>	
<p><b>Overview of assessment</b></p>	<p>A person who demonstrates competency in this unit must be able to manufacture and apply markings and graphics and apply decals to aircraft and aircraft in accordance with specified procedures and drawings while using the correct PPE and observing all relevant safety precautions and environmental protection processes.</p>
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<p>The underlying skills inherent in this unit should be transferable across a range of marking, graphic and decal application tasks associated with aircraft. It is essential that cleanliness requirements and safety precautions, including the correct use of PPE, and application of environmental protection procedures are fully observed, understood and complied with. Ability to interpret drawing and specification requirements and application procedures and apply them in practice is critical.</p> <p>Evidence of transferability of skills and knowledge related to the manufacture and application of markings and graphics is essential. This is to be demonstrated through application of various types of markings and graphics as listed in the Range Statement across a range of aircraft applications. 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 representative range of marking and graphic application tasks. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.</p>
<p><b>Context of and specific resources for assessment</b></p>	<p>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 special purpose tools and ground support equipment would be used where appropriate.</p>

<b>Method of assessment</b>	
<b>Guidance information for assessment</b>	

## Range Statement

<p>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.</p>	
<b>Application</b>	<p>Application of this unit may relate to:</p> <ul style="list-style-type: none"> <li>• scheduled or unscheduled maintenance</li> <li>• individual or team-related activities</li> </ul>
<b>Procedures and requirements</b>	<p>Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise</p>
<b>Markings</b>	<p>Markings may include:</p> <ul style="list-style-type: none"> <li>• NATO</li> <li>• national or registration</li> <li>• safety</li> </ul>
<b>Graphics</b>	<p>Graphics may include:</p> <ul style="list-style-type: none"> <li>• organisational logos or emblems</li> <li>• decorative markings required by customer</li> </ul>
<b>OHS requirements</b>	<p>OHS requirements are identified from relevant:</p> <ul style="list-style-type: none"> <li>• procedures manual</li> <li>• safety manual</li> <li>• work instructions</li> <li>• maintenance organisation manual</li> <li>• MSDS</li> <li>• Defence regulations and instructions</li> <li>• standing instructions</li> </ul>
<b>Materials and equipment</b>	<p>Materials and equipment may include:</p> <ul style="list-style-type: none"> <li>• silk screen and/or frame</li> <li>• spray guns</li> <li>• vinyl plotter</li> <li>• screen burner</li> <li>• ink applicators</li> <li>• rollers</li> <li>• brushes</li> <li>• vinyl applicators</li> <li>• hazard tape</li> <li>• masking tape</li> </ul>



	<ul style="list-style-type: none"> <li>• mediums including paint, ink and vinyl</li> <li>• PPE</li> </ul>
<b>Application methods</b>	<p>Application methods may include:</p> <ul style="list-style-type: none"> <li>• oil board</li> <li>• vinyl (positive and negative)</li> <li>• screen printing</li> <li>• mask</li> <li>• stencil</li> </ul>
<b>Legislative, regulatory and enterprise procedures</b>	<p>Legislative, regulatory and enterprise procedures may include:</p> <ul style="list-style-type: none"> <li>• state/territory/Commonwealth environmental legislation, regulations and codes for the storage and disposal of hazardous and toxic materials</li> <li>• MSDS</li> <li>• maintenance organisation manual</li> <li>• procedures manual</li> <li>• work instructions</li> <li>• relevant Defence regulations and instructions</li> <li>• standing instructions</li> </ul>

## Unit Sector(s)

Aviation maintenance

## Competency field

## Co-requisite units

Not applicable