



**Australian Government**

# **MEA416 Apply aircraft identification markings, graphics and decals**

**Release: 2**

# MEA416 Apply aircraft identification markings, graphics and decals

## Modification History

Release 2. Equivalent to MEA416 Apply aircraft identification markings, graphics and decals with amended prerequisite codes.

## Application

This unit of competency requires application of skills and knowledge relating to preparation and application of fixed and rotary wing aircraft markings, graphics and decals during the performance of scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

No licensing requirements apply to this unit at the time of publication, but compliance with legislation and regulations for the handling and disposal of hazardous materials is included in the unit.

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

## Pre-requisite Unit

|        |                                                                                              |
|--------|----------------------------------------------------------------------------------------------|
| MEA107 | Interpret and use aviation maintenance industry manuals and specifications                   |
| 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 |

## Competency Field

Aviation maintenance

## Unit Sector

### Elements and Performance Criteria

| Elements describe the essential outcomes. |                                                                                         | Performance criteria describe the performance needed to demonstrate achievement of the element. |                                                                                                                                                            |
|-------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                             | Work health and safety (WHS) requirements are identified and complied with and personal protective equipment (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                                  |

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|----|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|    | 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                                                             |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Procedures and requirements include:

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise.

|                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Markings include:</b>                                          | <ul style="list-style-type: none"><li>• NATO</li><li>• National or registration</li><li>• Safety</li></ul>                                                                                                                                                                                                                                                                                               |
| <b>Graphics include:</b>                                          | <ul style="list-style-type: none"><li>• Organisational logos or emblems</li><li>• Decorative markings required by customer</li></ul>                                                                                                                                                                                                                                                                     |
| <b>WHS requirements are identified from relevant:</b>             | <ul style="list-style-type: none"><li>• Procedures manual</li><li>• Safety manuals</li><li>• Work instructions</li><li>• Maintenance organisation manuals</li><li>• Material safety data sheets (MSDS)</li><li>• Defence regulations and instructions</li><li>• Standing instructions</li></ul>                                                                                                          |
| <b>Materials and equipment include:</b>                           | <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><li>• Mediums, including paint, ink and vinyl</li><li>• PPE</li></ul>                                                   |
| <b>Application methods include:</b>                               | <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 include:</b> | <ul style="list-style-type: none"><li>• Commonwealth/state/territory environmental legislation, regulations and codes for the storage and disposal of hazardous and toxic materials</li><li>• MSDS</li><li>• Maintenance organisation manuals</li><li>• Procedures manuals</li><li>• Work instructions</li><li>• Relevant Defence regulations and instructions</li><li>• Standing instructions</li></ul> |

## Unit Mapping Information

Release 2. Equivalent to MEA416 Apply aircraft identification markings, graphics and decals

## 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 MEA416 Apply aircraft identification markings, graphics and decals

## Modification History

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## Performance Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and must include:

- applying WHS 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 maintenance of equipment and tools.

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.

This is to be demonstrated through application of various types of markings and graphics as listed in the Range of Conditions across a range of aircraft applications.

## Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- relevant enterprise procedures, maintenance publications, drawings and specifications
- manufacturer's specifications and directions
- WHS 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.

## Assessment Conditions

- 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.
- The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders and must be rigorously observed.
- A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of the unit of competency are being achieved under routine supervision on a representative range of marking and graphic application tasks that are performed at the enterprise.
- This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

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