



**Australian Government**

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

# **MEA126B Manage aircraft maintenance activities**

**Revision Number: 2**

## **MEA126B Manage aircraft maintenance activities**

### **Modification History**

Minor formatting and editorial changes made.

### **Unit Descriptor**

This unit of competency is part of the Aeroskills Advanced Diploma training pathways. It covers the competencies required to manage maintenance activities relating to aircraft and aeronautical product within the civil and defence regulatory systems.

### **Application of the Unit**

This unit of competency requires application of competencies required to develop, implement and evaluate the outcomes of aircraft maintenance activities.

Applications include flight lines, hangars and workshops.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable

### **Employability Skills Information**

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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## Elements and Performance Criteria

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| <p>1. Develop a maintenance program</p>            | <p>1.1. <b><i>Maintenance requirements for aircraft</i></b> are determined from <b><i>relevant documentation</i></b></p> <p>1.2. <b><i>Maintenance tasks</i></b> are analysed and prioritised</p> <p>1.3. <b><i>Resource requirements</i></b> are identified and allocated to ensure the timely and efficient completion of maintenance tasks</p>  |
| <p>2. Implement a maintenance program</p>          | <p>2.1. Roles and responsibilities of maintenance personnel are communicated and agreed</p> <p>2.2. Appropriate resources and equipment to achieve scheduled tasks are <b><i>considered</i></b> and arranged</p> <p>2.3. Maintenance personnel are regularly consulted to ensure scheduled tasks are being achieved</p> <p>2.4. <b><i>Management/stakeholder updates</i></b> on maintenance progress are provided</p> <p>2.5. Maintenance activities are monitored to ensure compliance with <b><i>authorised instructions, policy and procedures</i></b></p> <p>2.6. <b><i>Advice and assistance with maintenance activities</i></b> is provided, as required</p> <p>2.7. <b><i>Maintenance problems</i></b> are identified and/or anticipated and avoided or controlled in accordance with the maintenance program</p> <p>2.8. Maintenance program effectiveness is reviewed and analysed</p> <p>2.9. Proposed changes to the maintenance program are identified, investigated and negotiated with management/stakeholders</p> |
| <p>3. Evaluate and report maintenance outcomes</p> | <p>3.1. Final maintenance outcomes are evaluated against the program in accordance with organisational policy and procedures</p> <p>3.2. Maintenance reports are collated, evaluated and forwarded to appropriate authorities in accordance with organisational policy and procedures</p>  |

## Required Skills and Knowledge

### Required skills

Look for evidence that confirms skills in:

- using documentation and relevant regulations to determine maintenance and reporting requirements
- using MSDS to determine handling precautions and PPE requirements
- application of OHS requirements
- planning
- communicating
- questioning
- fault diagnosis techniques

### Required knowledge

Look for evidence that confirms knowledge of:

- sources of information relating to scheduled and unscheduled maintenance activities and configuration change requirements
- basic project planning techniques, including timing, prioritising, resourcing, monitoring and evaluation of maintenance tasks
- techniques for mapping maintenance activities and recording progress
- the aircraft and systems being maintained
- fault diagnosis and troubleshooting procedures, damage assessment philosophies and procedures, cost-effectiveness considerations for different repair types, philosophies and considerations in repair versus replacement options
- applicable regulations, organisational policy and procedures manuals, maintenance manuals and instructions
- MSDS
- OHS, equity, fraud and ethics

## 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 set up and implement an aircraft maintenance program, evaluate the outcomes and correctly report the maintenance activities.</p>
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p> <p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways, including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p>
<p><b>Context of and specific resources for assessment</b></p>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The candidate must have access to all tools, equipment, materials and documentation required and must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials. The assessment environment should not disadvantage the candidate.</p>
<p><b>Method of assessment</b></p>	
<p><b>Guidance information for assessment</b></p>	

## 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>	
<p><b>Application</b></p>	<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>
<p><b>Maintenance requirements for aircraft</b></p>	<p>Maintenance requirements for aircraft includes:</p> <ul style="list-style-type: none"> <li>• maintenance of the airframe and aircraft systems, power plant, avionics systems and fitted role equipment</li> </ul>
<p><b>Relevant documentation</b></p>	<p>Relevant documentation may include:</p> <ul style="list-style-type: none"> <li>• computer data systems</li> <li>• log books</li> <li>• authorised maintenance manuals</li> <li>• management directives</li> <li>• feedback from maintenance and operating personnel</li> <li>• aircraft flight and technical records</li> <li>• aircraft maintenance program</li> <li>• Civil Aviation Regulations (CARs) and Advisory Circulars (ACs)</li> <li>• CASRs, Manuals of Standards and associated Acceptable Means of Compliance and Guidance Material</li> <li>• airworthiness directives</li> <li>• maintenance organisation expositions</li> <li>• continuing airworthiness management organisation expositions</li> <li>• aircraft type certificate design certificate</li> <li>• relevant defence regulations and instructions</li> </ul>
<p><b>Maintenance tasks</b></p>	<p>Maintenance tasks may include:</p> <ul style="list-style-type: none"> <li>• scheduled</li> <li>• unscheduled</li> <li>• preventative</li> <li>• corrective</li> </ul>
<p><b>Resource requirements</b></p>	<p>Resource requirements include:</p> <ul style="list-style-type: none"> <li>• personnel</li> </ul>

	<ul style="list-style-type: none"> <li>• spare parts and consumables</li> <li>• special equipment</li> <li>• ground support equipment, such as power carts and hydraulic rigs</li> <li>• personal protective equipment</li> <li>• tools</li> </ul>
<b>Considerations regarding resource requirements</b>	<p>Considerations regarding resource requirements may include:</p> <ul style="list-style-type: none"> <li>• personnel numbers</li> <li>• personnel availability</li> <li>• personnel qualifications</li> <li>• personnel authorisations and experience</li> <li>• quantities and availability of parts, consumables special equipment, ground support equipment, PPE and tools</li> </ul>
<b>Management/stakeholder updates</b>	<p>Management/stakeholder updates may include:</p> <ul style="list-style-type: none"> <li>• verbal reports and briefings</li> <li>• written reports, including notes, worksheets and briefs</li> </ul>
<b>Authorised instructions, policy and procedures</b>	<p>Authorised instructions, policy and procedures may include:</p> <ul style="list-style-type: none"> <li>• manufacturers operating manuals</li> <li>• management directives</li> <li>• maintenance manuals</li> <li>• defence regulations and instructions</li> <li>• standing instructions</li> <li>• maintenance management plan</li> <li>• maintenance organisation expositions</li> <li>• continuing airworthiness management organisation expositions</li> <li>• procedures manuals</li> <li>• work instructions</li> <li>• CARs or CASRs, Manuals of Standards and associated Acceptable Means of Compliance and Guidance Material</li> <li>• quality assurance instructions</li> <li>• OHS policies and instructions</li> <li>• MSDS</li> </ul>
<b>Advice and assistance with maintenance activities</b>	<p>Advice and assistance with maintenance activities may include:</p> <ul style="list-style-type: none"> <li>• work practices</li> </ul>

	<ul style="list-style-type: none"> <li>• fault diagnosis procedures</li> <li>• damage assessment</li> <li>• defect investigation</li> <li>• assessment of repair cost-effectiveness</li> <li>• assessment of repair versus replacement options</li> <li>• monitoring of telemetry maintenance data from aircraft during flight operations</li> </ul>
<b>Maintenance problems</b>	<p>Maintenance problems may include:</p> <ul style="list-style-type: none"> <li>• lack of resources or data</li> <li>• unanticipated breakdowns or faults</li> <li>• changes in priorities</li> </ul>

## Unit Sector(s)

Aviation maintenance management

## Competency field

## Co-requisite units

Not applicable