



Australian Government

MEA112 Plan and implement civil aircraft maintenance activities

Release: 1

MEA112 Plan and implement civil aircraft maintenance activities

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers all aviation maintenance activities. It requires application of maintenance planning and management skills to plan, implement, evaluate and report on aviation maintenance activities during scheduled or unscheduled maintenance while complying with all legislative and regulatory requirements. Work may be performed individually or as part of a team.

This is one of the units that must be attained to progress from Aircraft Maintenance Engineer (AME) to the grant of a maintenance certification licence under Civil Aviation Safety Regulation (CASR) Part 66, in accordance with the licensing provisions in the Companion Volume Implementation Guide.

The skills and knowledge covered by the units of competency at Certificate IV level listed in the MEA Aeroskills Training Package for the qualification leading to the applicable maintenance certification licence sought are prerequisite to the attainment of the elements of competency specified in this unit. This includes full coverage of the CASR Part 66 Avionics or Mechanical Syllabus subjects/topics.

Pre-requisite Unit

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. Plan aircraft maintenance activities

1.1 Maintenance requirements are determined from applicable sources

1.2 Maintenance tasks are analysed and prioritised

1.3 Resource requirements are identified and allocated to ensure the timely and efficient completion of maintenance tasks

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| | 1.4 | Maintenance tasks to be performed are recorded in a maintenance schedule in accordance with enterprise policies and procedures |
| 2. Implement aircraft maintenance activities | 2.1 | Roles and responsibilities of maintenance personnel are communicated and agreed |
| | 2.2 | Resources and equipment required to perform maintenance tasks are identified and arranged |
| | 2.3 | Regular liaison with maintenance personnel is maintained to ensure scheduled/unscheduled tasks are being completed and continuity is maintained |
| | 2.4 | Management/stakeholders are provided with regular updates on maintenance progress in the form of both written and verbal reports, including notes, worksheets, status reports, briefs and individual directives, as required |
| | 2.5 | Maintenance activities are monitored to ensure compliance with prescribed instructions, policies, procedures and/or regulatory requirements |
| | 2.6 | Advice and assistance with maintenance activities is provided, as required |
| | 2.7 | Maintenance problems are resolved in accordance with the approved maintenance data |
| | 2.8 | Proposed changes to the maintenance schedule are processed and negotiated with management/stakeholders |
| 3. Evaluate and report maintenance outcomes | 3.1 | Final maintenance outcomes are evaluated against the schedule in accordance with enterprise policies and procedures |
| | 3.2 | Maintenance reports are collated, evaluated and forwarded to appropriate management personnel in accordance with enterprise policies and procedures |

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.

Maintenance requirements are determined from any or all of:	• Maintenance releases • Manufacturers' maintenance manuals and servicing schedules • Computer maintenance data systems • Service bulletins • Modification incorporation instructions • Repair instructions • Feedback from maintenance personnel and aircrew via Technical Logs or approved maintenance documentation • Aircraft Maintenance Organisation (AMO) internal work instructions or directives • Airworthiness Directives (ADs)
Resource requirements include:	• Required numbers of personnel and their availability • Personnel qualifications, experience and authorisations
Resources and equipment required to perform maintenance tasks include:	• Personnel • Spares • Lubricants • Consumables • Tools • Special equipment • Personal protective equipment (PPE) • Associated equipment including various items of ground support equipment
Prescribed instructions, policies, procedures and/or regulatory requirements include:	• Manufacturers' operating and maintenance manuals • CASA-approved enterprise operation manuals • Quality procedures and work instructions • Work health and safety (WHS) policies and instructions, including material safety data sheets (MSDS) • Management directives
Advice and assistance in maintenance activities include:	• Fault diagnosis procedures • Troubleshooting • Damage assessment • Assessment of repair cost effectiveness • Assessment of replacement options • Technical services advice or directives
Maintenance problems	• Lack of resources

include:	• Unanticipated breakdowns or faults • Changes in priorities
Maintenance activities include:	• Scheduled maintenance • Unscheduled maintenance • Configuration changes • Modification incorporation • Repair

Unit Mapping Information

Release 1 – equivalent to MEA112B Plan and implement civil aircraft maintenance activities

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 MEA112 Plan and implement civil aircraft maintenance activities

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 include:

- application of the procedures for the identification of specific maintenance requirements through the review of:
 - maintenance releases
 - manufacturers' maintenance manuals and servicing schedules
 - computer maintenance data systems
 - service bulletins
 - modification incorporation instructions
 - repair instructions
 - feedback from maintenance personnel and aircrew via Technical Logs or approved maintenance documentation
 - AMO internal work instructions or directives
 - ADs
- basic project planning techniques, including planning chart development, timing, prioritising, resourcing, monitoring, performance measurement and evaluation of maintenance tasks
- financial and inventory management as an element of task planning
- the basic function, components, operation and interrelationship of all aircraft systems for the initial rating sought
- problem solving techniques and troubleshooting procedures
- damage assessment philosophies and procedures, particularly with regard to corrosion damage
- cost control during maintenance, including cost effectiveness considerations for different repair types
- philosophies and considerations in repair versus replacement options
- the application of quality management systems in aircraft maintenance
- enterprise and regulatory requirements for undertaking, recording and reporting maintenance activities, including relevant WHS requirements and the use of PPE.

It is essential that maintenance requirements are fully identified and that all applicable aspects of planning and implementation are identified and applied to meet organisational priorities and minimise workplace disruptions.

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:

- methods of determining and specifying maintenance requirements (Maintenance Review Board (MRB), Maintenance Standards Group (MSG), Extended Range Twin Engine Operations (EROPS), RVSM, Maintenance Programs, Minimum Equipment List (MEL), reliability, Air Transport Association (ATA) codes)
- the procedures for the identification of specific maintenance requirements through the review of:
 - maintenance releases
 - manufacturers' maintenance manuals and servicing schedules
 - computer maintenance data systems
 - service bulletins
 - modification incorporation instructions
 - repair instructions
 - feedback from maintenance personnel and aircrew via Technical Logs or approved maintenance documentation
 - AMO internal work instructions or directives
 - ADs
 - the regulations governing aircraft maintenance coordination
- basic project planning techniques, including planning chart development, timing, prioritising, resourcing, monitoring, performance measurement and evaluation of maintenance tasks
- financial and inventory management as an element of task planning
- the basic function, components, operation and interrelationship of all aircraft systems for the initial rating sought
- problem solving techniques and troubleshooting procedures
- damage assessment philosophies and procedures, particularly with regard to corrosion damage
- cost control during maintenance, including cost effectiveness considerations for different repair types
- philosophies and considerations in repair versus replacement options
- the application of quality management systems in aircraft maintenance
- enterprise and regulatory requirements for undertaking, recording and reporting maintenance activities, including relevant WHS requirements and the use of PPE.

Assessment Conditions

- Competency should be assessed under supervision without intervention in the work environment, and/or by use of simulated activities in a CASR Part 147 Maintenance Training Organisation (MTO), covering the full range of maintenance planning and implementation. This unit must be linked in its assessment and application to those that apply to the exercise of Aircraft Maintenance Engineer Licence or Aircraft Maintenance Specialist Certificate privileges in the actual maintenance of aircraft.
- Evidence is required of underlying knowledge and skills in the planning and implementation of maintenance activities, and in the associated compliance with airworthiness regulatory requirements.
- The following conditions of assessment represent the requirements of CASA 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 on a task representing each of:
 - determining maintenance requirements
 - identifying personnel resource requirements
 - identifying resources and equipment required to perform maintenance tasks
 - providing regular updates on progress of tasks
 - identifying and applying prescribed instructions, policy, procedures and/or regulatory requirements
 - providing advice and assistance in maintenance activities
 - resolving maintenance problems.
- The Assessor must meet the criteria specified in the CASR Part 147 Manual of Standards.

Links

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