



Australian Government

MEA122 Manage aircraft/equipment system performance testing

Release: 1

MEA122 Manage aircraft/equipment system performance testing

Modification History

Release 1 - New unit of competency

Application

This unit of competency requires application of skills and knowledge relating to the use of performance testing in establishing the airworthiness state of aircraft and aircraft systems through means such as aircraft flight testing, engine ground runs, system functional tests and test equipment calibration during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

The unit is part of the Aeroskills Advanced Diploma training pathways. It 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

MEA126 Manage aircraft maintenance activities

Competency Field

Aviation maintenance management

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 and specify aircraft/equipment systems performance tests

- 1.1 Aircraft/equipment system performance test requirements are established in accordance with airworthiness regulations, policies and procedures including work health and safety (WHS) requirements associated with engine running and system functional testing
- 1.2 Aircraft/systems performance tests are programmed in conjunction with appropriate personnel
- 1.3 Aircraft/systems performance test specifications are

		communicated to appropriate personnel in accordance with organisational policies and procedures
	1.4	Test equipment calibration is managed in accordance with regulatory requirements and organisational policies and procedures
2. Assess aircraft/equipment systems performance	2.1	Test results are assessed for compliance with test specifications
	2.2	Non-compliant test results are identified and diagnosed in consultation with appropriate personnel
	2.3	Aircraft/equipment systems are assessed for airworthiness compliance
	2.4	Rectification recommendations are produced and reported in accordance with airworthiness policies and procedures
	2.5	Test results are documented in accordance with approved guidelines

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.

Aircraft/equipment system performance tests include:

- Engine ground runs
- Maintenance/validation test flights
- System functional testing

Airworthiness regulations, policies and procedures include:

- Civil Aviation Regulations (CARs) and associated Advisory Circulars (ACs)
- Civil Aviation Safety Regulations (CASRs), Manuals of Standards and associated Acceptable Means of Compliance and Guidance Material
- AAP 7001.053 Technical Airworthiness Maintenance Manual

- Appropriate personnel include:**
- Airworthiness Directives (ADs)
 - Maintenance management plan
 - Maintenance organisation expositions
 - Continuing airworthiness management organisation expositions
 - Procedures manuals
 - Work instructions
 - Flight test schedules
 - Maintenance manuals
 - Maintenance test pilots
 - Authorised engineering officers
 - Authorised airworthiness representatives
 - Accountable managers/responsible managers
 - Senior maintenance managers
 - Continuing airworthiness management personnel
 - Authorised maintenance personnel
- Recommendations include:**
- Completed test schedules
 - Auditable reports

Unit Mapping Information

Release 1 – equivalent to MEA122B Manage aircraft/equipment system performance testing

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 MEA122 Manage aircraft/equipment system performance testing

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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 on at least one occasion, and must include:

- communicating and consulting
- problem solving
- researching
- report writing
- observing relevant regulatory requirements
- applying work health and safety (WHS) requirements associated with engine ground runs and system functional testing.
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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:

- procedures and documentation action for test flights
- procedures and documentation action for engine ground runs
- procedures for functional testing of systems and evaluation of results
- WHS procedures relating to engine ground runs and system functional testing.
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Assessment Conditions

- 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, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations encountered when managing aircraft equipment system performance testing.
- 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.

- 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.
- Assessors should gather a range of evidence that is valid, sufficient, current and authentic. The preferred method is the records in the Maintenance Management Competency Log. Where the individual does not have a Competency Log 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.
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

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