Australian Government

MEA122B Manage aircraft/equipment system performance testing

Revision Number: 2

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

MEA122B Manage aircraft/equipment system performance testing

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 evaluate and advise on airworthiness as a consequence of aircraft/equipment system performance testing and in compliance with relevant airworthiness regulations.

Application of the Unit

This unit requires application of skills and knowledge relating to the use of performance testing in establishing the airworthiness state of aircraft and aircraft systems.

Applications include aircraft flight testing, engine ground runs, system functional tests and test equipment calibration.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

MEA126B Manage aircraft maintenance activities

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.

Elements and Performance Criteria

1. Plan and specify aircraft/equipment systems performance tests	1.1. ***Aircraft/equipment system performance test*** requirements are established in accordance with ***airworthiness regulations, policy and procedures***
	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 policy and procedures
	1.4. Test equipment calibration is managed in accordance with regulatory requirements and organisational policy 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 policy and procedures
	2.5. Test results are documented in accordance with approved guidelines

Required Skills and Knowledge

Required skills

Look for evidence that confirms skills in:

- communicating and consulting
- problem solving
- researching
- report writing
- observing relevant regulatory requirements
- applying OHS requirements associated with engine ground runs and system functional testing

Required knowledge

Look for evidence that confirms 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
- OHS procedures relating to engine ground runs and system functional testing

Evidence Guide

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.	
Overview of assessment	A person who demonstrates competency in this unit must be able to determine the requirement for performance tests, complete the authorisation process and participate in the assessment of results and determining any remedial action. Competency in this unit cannot be claimed until all prerequisites have been satisfied.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	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. 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.
Context of and specific resources for assessment	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.
Method of assessment	
Guidance information for assessment	

Range Statement

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.	
Application	Application of this unit may relate to: • scheduled or unscheduled maintenance • individual or team-related activities
Aircraft/equipment system performance tests	Aircraft/equipment system performance tests may include: • engine ground runs • maintenance/validation test flights • system functional testing
Airworthiness regulations, policy and procedures	Airworthiness regulations, policy and procedures may include: • Civil Aviation Regulations (CARs) and associated Advisory Circulars (ACs) • CASRs, Manuals of Standards and associated Acceptable Means of Compliance and Guidance Material • AAP 7001.053 Technical Airworthiness Maintenance Manual • airworthiness directives • maintenance management plan • maintenance organisation expositions • continuing airworthiness management organisation expositions • procedures manual • work instructions • flight test schedule • maintenance manuals
Appropriate personnel	Appropriate personnel may include: • maintenance test pilots • authorised engineering officers • authorised airworthiness representatives • accountable managers/responsible managers • senior maintenance managers • continuing airworthiness management personnel • authorised maintenance personnel

Recommendations	Recommendations may include: • completed test schedules • auditable reports

Unit Sector(s)

Aviation maintenance management

Competency field

Co-requisite units

Not applicable