



Australian Government

MEA159 Manage aircraft and aeronautical product configuration

Release: 2

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Modification History

Release 1.1 Equivalent to MEA121 Manage aircraft/aeronautical product configuration. Minor amendments to references to regulations to allow flexibility in their application.

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Application

This unit of competency describes the skills and knowledge required to apply configuration management (CM) procedures specified by applicable regulatory bodies and the organisation. It involves maintaining the configuration defined by original drawings, standards, and component fit of the aircraft or aeronautical product, and as subsequently varied by approved modifications or approved component/material substitution. The unit includes managing aircraft weight and balance, role equipment, modification state, and spares' authenticity and traceability. Work may be performed individually or as part of a team.

The unit applies to aircraft configuration during scheduled and unscheduled maintenance, and covers the equipment fit for approved aircraft and aeronautical product operation, including specified role equipment. 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).

This unit forms part of the CASA requirement for maintenance certification licences under Civil Aviation Safety Regulation (CASR) Part 66. Where a CASA licensing outcome is sought, users must refer to the licensing provisions in the MEA Aeroskills Companion Volume Implementation Guide.

Pre-requisite Unit

Nil.

Competency Field

Aviation maintenance management

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Maintain aircraft and aeronautical product

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Maintain aircraft and aeronautical product maintenance configuration in line with applicable maintenance

configuration	documentation
	1.2 Change and maintain aircraft configuration to meet established role requirements according to airworthiness regulations and organisational policy and procedures
	1.3 Modify aircraft and aeronautical product according to airworthiness regulations and organisational policy and procedures
	1.4 Authenticate and check aeronautical product for serviceability according to airworthiness regulations and organisational policy and procedures
	1.5 Produce locally manufactured components according to authorised specifications and technical drawings
2. Manage aircraft weight and balance	2.1 Maintain and validate aircraft weight and balance according to regulatory requirements and organisational policy and procedures
	2.2 Provide revised weight and balance data for revision of aircraft loading systems
3. Manage maintenance configuration records and documentation	3.1 Compile and distribute maintenance reports and documentation according to regulatory requirements and organisational policy and procedures
	3.2 Maintain maintenance records and associated documentation according to organisational policy and procedures
	3.3 Remedy deficiencies in documentation according to organisational policy and procedures

Foundation Skills

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

Unit Mapping Information

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Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>

Assessment Requirements for MEA159 Manage aircraft and aeronautical product configuration

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, which must include the ability to:

- manage the configuration of at least one aircraft and at least one aeronautical product
- audit the aircraft and aeronautical product configuration
- document maintenance activities in required format and distribute to designated personnel.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- airworthiness regulations and organisational policy and procedures relating to:
 - changing and maintaining aircraft configuration
 - maintaining and validating aircraft weight and balance
 - modifying aircraft and aeronautical product
 - authenticating and checking aeronautical product for serviceability
 - compiling, maintaining, and distributing maintenance records, reports and documentation
- sources of above airworthiness regulations and organisational policy and procedures, including:
 - relevant aviation safety regulations
 - maintenance organisation manuals
 - aviation maintenance organisation exposition
 - continuing airworthiness management organisation exposition
 - maintenance control manuals
 - procedures manuals
 - work instructions
- key features of authorised specifications and technical drawings
- key components of weight and balance documentation
- role/alternate mission changes and related maintenance actions
- product deviations

- approval processes for local manufacture of components
- procedures for determining authenticity of components, including through search of the following sources for evidence of component authenticity:
 - authorised regulatory authority technical documentation
 - original equipment manufacturers' documentation
 - authorised release certificates
 - certificates of conformance
 - certifying statements
- cannibalisation procedures and impact on configuration
- key features of aircraft and aeronautical modification records and product maintenance documentation, including:
 - aircraft maintenance records
 - aeronautical product maintenance records
 - completed worksheets
- reporting protocols and key features of the following modification documentation:
 - reports and documents that must be forwarded to the relevant aviation safety authority as specified by the relevant aviation safety regulations
 - continuing airworthiness documentation and reports
 - computer maintenance database reports
 - stores forms
 - articles in use accounts
 - aircraft/equipment cross-reference records.

Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (ADF and CASA) and maintenance stakeholders, and must be rigorously observed.

This unit may be assessed on the job, off the job, or a combination of both. Where assessment occurs off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations encountered in the management of aircraft aeronautical product configuration.

The candidate must be permitted to refer to relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals, and reference materials.

The candidate must have access to:

- tools, equipment, and materials required to demonstrate the performance evidence above
- maintenance documentation applicable to the aircraft and aeronautical product maintenance configuration, including:
 - aircraft/equipment maintenance documentation required by applicable regulations and organisational policy and procedures:
 - aircraft maintenance records
 - aeronautical product maintenance records

- completed worksheets
- computer maintenance databases.

Candidate capability of providing the required performance and knowledge evidence must be established via the records in the Maintenance Management Competency Log. Where the individual does not have a Competency Log, evidence of capability can be gathered through direct observation, supervisor's reports, project work, samples and questioning.

Assessors of this unit must satisfy the assessor requirements in applicable vocational education and training legislation, frameworks and/or standards.

Where the unit is to be used for CASA licensing purposes the assessor must also meet the criteria specified in the CASR Part 147 Manual of Standards.

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