



Australian Government

MEA225 Inspect fixed wing aircraft automatic flight control systems and components

Release: 2

MEA225 Inspect fixed wing aircraft automatic flight control systems and components

Modification History

Release 2. Equivalent to MEA225 Inspect fixed wing aircraft automatic flight control systems and components with amended prerequisite codes.

Application

This unit of competency requires application of hand skills and the use of system/component knowledge and applicable maintenance publications to inspect aircraft automatic flight control systems and components of fixed wing aircraft that have automatic flight control systems during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

The unit is part of the Avionic Certificate IV (Aircraft Maintenance Stream) training pathways.

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).

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen maintenance certification licence under Civil Aviation Safety Regulation (CASR) Part 66, in accordance with the licensing provisions in the Companion Volume Implementation Guide.

Pre-requisite Unit

MEA246	Fabricate and/or repair aircraft electrical hardware or parts
MEA293	Remove and install aircraft electronic system components

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.
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| 1. Inspect automatic flight control systems and components | 1.1 Isolation tags are checked and aircraft configured for safe system inspection and operation in accordance with the applicable maintenance manual |
| | 1.2 Automatic flight control system components are visually or physically checked for external signs of defects in accordance with applicable maintenance manual while observing all relevant work health and safety (WHS) requirements |
| | 1.3 Defects are correctly identified and recorded in accordance with standard enterprise 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.

Automatic flight control systems and components include:

- Automatic pilots and associated integrated systems and components, including:
 - automatic pilot
 - flight director
 - automatic trim
 - yaw damper
 - automatic throttle and automatic landing (where applicable to the enterprise)

Procedures and requirements include:

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 2. Equivalent to MEA225 Inspect fixed wing aircraft automatic flight control systems and components

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 MEA225 Inspect fixed wing aircraft automatic flight control systems and components

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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 must include:

- applying relevant WHS practices
- using approved maintenance documentation and aircraft publications relating to the automatic flight control system being maintained
- recognition of system and component defects/external damage, correct installation, connection of plugs, terminations, and attaching hardware (including cabling/harnesses) and security in automatic flight control system and components.

It is essential that inspection procedures, cleanliness requirements and safety precautions applicable to the electrical system being maintained are fully observed, understood and complied with. Ability to interpret inspection procedures and specifications (allowable limits) and apply them in practice (including the timely involvement of supervisors or other trades) is critical.

Evidence of transferability of skills and knowledge related to inspection is essential. This is to be demonstrated through application across a range of aircraft automatic flight control systems and components listed in the Assessment Conditions.

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:

- component attachment methods
- the basic layout (block diagram level), and operation of the system, including the interface with:
 - flight management systems
 - navigation systems
 - flight control actuators
 - engine management systems
- relevant WHS practices
- maintenance requirements
- relevant maintenance manuals
- relevant regulatory requirements and standard procedures.

Assessment Conditions

- Competency should be assessed in the workplace or simulated workplace using tools and equipment specified in the maintenance manuals. It is also expected that applicable general and special purpose tools, and test and ground support equipment would be used where appropriate. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders 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 under routine supervision on at least one (1) item from each of the following groups:
 - automatic pilot
 - flight director
 - automatic trim
 - yaw damper
 - automatic throttle and automatic landing (may be omitted where it is not applicable to the enterprise).
- This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).
- 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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