



Australian Government

Department of Education, Employment and Workplace Relations

MEA225C Inspect fixed wing aircraft automatic flight control systems and components

Release: 1

MEA225C Inspect fixed wing aircraft automatic flight control systems and components

Modification History

Knowledge statements expanded - equivalent to previous unit.

Unit Descriptor

This unit of competency is part of the Avionic Certificate IV (Aircraft Maintenance Stream) training pathways. It covers the competencies required to inspect automatic flight control systems and components of fixed wing aircraft. The unit is used in workplaces that operate under the airworthiness regulatory systems of the ADF and CASA.

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the B2 maintenance certification licence under CASR Part 66, in accordance with the licensing provisions in Section 3, Assessment Guidelines.

Application of the Unit

This unit 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.

Applications include fixed wing aircraft that have automatic flight control systems.

Licensing/Regulatory Information

Refer to unit descriptor

Pre-Requisites

MEA207C Remove and install aircraft electronic system components

MEA246C Fabricate and/or repair aircraft electrical components or parts

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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Elements and Performance Criteria

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| <p>1 Inspect automatic flight control systems and components</p> | <p>1.1 Isolation tags are checked and aircraft configured for safe system operation in accordance with the applicable maintenance manual</p> <p>1.2 <i>Automatic flight control system components</i> are visually or physically inspected for external signs of defects in accordance with applicable maintenance procedures</p> <p>1.3 Defects are correctly identified and recorded in accordance with applicable procedures</p> |
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Required Skills and Knowledge

Look for evidence that confirms 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 OHS practices
- maintenance requirements
- relevant maintenance manuals
- relevant regulatory requirements and standard procedures

Look for evidence that confirms skills in:

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

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 inspect automatic flight control systems and components while observing all relevant safety precautions.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The underlying skills inherent in this unit should be transferable across a range of inspection applications (including the timely involvement of supervisors or other trades) associated with aircraft automatic flight control systems and components. It is essential that cleanliness requirements and safety precautions applicable to the system being maintained are fully observed, understood and complied with. Ability to interpret inspection procedures and specifications (allowable limits) and apply them in practice 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 Range Statement. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards. A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the unit of competency are being achieved under routine supervision on at least one item from each of Groups 1 to 4 (Group 5 may be omitted where it is not applicable to the enterprise) listed in the Range Statement. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.

Context of and specific resources for assessment

Competency should be assessed in the workplace or simulated workplace using tools and equipment specified in the maintenance manuals. It is also expected that general and special purpose tools, test and ground support equipment would be used where appropriate.

Method of assessment

Guidance information for

assessment	
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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.

Note	Range statements listed below are numbered to facilitate specification of the assessment requirements included in the Evidence Guide
Automatic flight control systems and components	Automatic flight control systems and components may include automatic pilots and associated integrated systems and components, including: <ol style="list-style-type: none"> 1. Automatic pilot 2. Flight director 3. Automatic trim 4. Yaw damper 5. Automatic throttle and automatic landing
Application	Application of this unit may relate to: <ul style="list-style-type: none"> • scheduled or unscheduled maintenance activities • individual or team-related activities
Procedures and requirements	Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Sector(s)

Aviation maintenance

Custom Content Section

Not applicable.