



Australian Government

**Assessment Requirements for
MEAAVI0060 Inspect, test and
troubleshoot fixed wing single-axis autopilot
systems and components**

Release: 1

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Modification History

Release 1. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Range of Conditions removed, and relevant information moved to Assessment Requirements. Assessment Requirements clarified. Supersedes and is equivalent to MEA291 Inspect, test and troubleshoot fixed wing single axis autopilot systems and components.

Performance Evidence

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

- perform inspection, testing and troubleshooting on fixed wing single-axis autopilot systems and components on at least two occasions during scheduled or unscheduled maintenance
- recognise system and component defects, external damage, correct/incorrect installation, connection of plugs, terminations, attachment hardware (including cabling/harnesses) and security in the systems and components being worked on, and comprising:
 - autopilot system components
 - radio navigation system interfaces
- perform functional testing on the systems and components being worked on by applying logic processes, taking and interpreting system measurements, and using test equipment and appropriate wiring diagrams and manuals to accurately and effectively isolate system malfunctions and assess post-maintenance serviceability
- apply testing procedures, cleanliness requirements and safety precautions at all times, and as relevant to the system/s being maintained.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- component attachment methods
- the basic layout (block diagram level), function and operation of:
 - autopilot system components
 - interface with radio navigation systems
- autopilot system maintenance requirements and troubleshooting procedures
- work health and safety (WHS) practices for inspecting, testing and troubleshooting fixed wing single-axis autopilot systems
- basic principles/functions, relating to the listed systems and associated with the following:
 - basic alternating current (AC) and direct current (DC) circuit theory

- digital fundamentals
- analogue fundamentals
- fixed wing flight theory
- inner and outer loop control
- maintenance manuals for inspecting, testing and troubleshooting fixed wing single-axis autopilot systems
- relevant regulatory requirements and standard procedures.

Assessment Conditions

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

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in inspecting, testing and troubleshooting fixed wing single-axis autopilot systems and components. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - required workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to inspecting, testing and troubleshooting fixed wing single-axis autopilot systems and components
 - tools and equipment specified in the maintenance manuals
 - general and special-purpose tools, test and ground equipment.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

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