Australian Government

Assessment Requirements for MEAAVI0013 Inspect, test and troubleshoot instrument landing systems and components

Release: 1

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Modification History

Release 1. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Assessment Requirements clarified. Supersedes and is equivalent to MEA216 Inspect, test and troubleshoot instrument landing 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 instrument landing systems (ILS) and components during scheduled or unscheduled maintenance on an ILS and at least one major system component or line replaceable unit (LRU)
- recognise system and component defects, external damage, correct or incorrect installation, attachment hardware (including cabling or harnesses or transmission lines) and security in the ILS
- perform functional testing by applying logic processes and taking and interpreting system measurements to accurately and effectively isolate malfunctions and faults in the ILS being worked on, and perform system testing to isolate system faults 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 the system
- integration with other avionic systems
- the location and operation of ground:
  - marker beacons
  - localiser transmitter
  - glideslope transmitter
- ILS maintenance requirements and troubleshooting procedures
- work health and safety (WHS) practices for instrument landing systems and components
- basic principles and functions relating to the system and associated with:
  - electromagnetic radiation and propagation
  - basic alternating current (AC) and direct current (DC) circuit theory
  - digital fundamentals

- analogue fundamentals
- transmitter and receiver principles
- antenna characteristics
- transmission line characteristics

- maintenance manuals for the inspection, testing and troubleshooting of ILS and components
- 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 ILS and components. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to inspecting, testing and troubleshooting ILS and components
  - general and special-purpose tools and items of ground support and test equipment required for inspecting, testing and troubleshooting ILS and components.

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