



Australian Government

**Assessment Requirements for
MEAAVI0031 Inspect, test and
troubleshoot aircraft global navigation
systems and components**

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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 MEA234 Inspect, test and troubleshoot aircraft global navigation 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 during scheduled or unscheduled maintenance on aircraft global navigation systems (GNS) and components and, in cases where the system is not replaced as a single unit, at least one major system component or line replacement unit (LRU)
- recognise system and component defects, external damage, correct/incorrect installation, attachment hardware (including cabling/harnesses/transmission lines) and security in the GNS being maintained
- perform functional testing by applying logic processes and taking and interpreting system measurements to accurately and effectively isolate malfunctions within the GNS being maintained, 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:

- GNS principles, including the use of satellites for navigation
- component attachment methods
- the basic layout (block diagram level), function and operation of GNS, including interpretation of indicators and operation of controls
- basic principles/functions relating to the system and associated with the following:
 - 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
- interface with other avionic systems, e.g. flight management systems

- maintenance requirements and troubleshooting procedures
- work health and safety (WHS) practices for aircraft global navigation systems and components
- maintenance manuals for aircraft global navigation systems and components
- relevant regulatory requirements and standard procedures.
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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 aircraft global navigation systems 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 aircraft global navigation systems and components
 - tools and equipment specified in the maintenance manuals
 - general and special-purpose tools and items of ground support and test equipment required for the inspecting, testing and troubleshooting aircraft global navigation systems 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>