



Australian Government

**Assessment Requirements for
MEAAVI0030 Inspect, test and
troubleshoot aircraft inertial navigation and
reference 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 MEA233 Inspect, test and troubleshoot aircraft inertial navigation and reference 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 aircraft inertial navigation and reference systems and components on an inertial navigation system and at least one major system component or line replacement unit (LRU)
- recognise the following for the system being worked on:
 - system and component defects or external damage
 - correct installation
 - connection of plugs
 - terminations
 - attached hardware (including cabling/harnesses)
 - security in inertial navigation and reference system components
- perform functional testing in the system being maintained by applying logic processes, taking and interpreting system measurements and using test equipment, appropriate wiring diagrams and manuals to 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 being maintained.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- component attachment methods
- connection of hardware
- the basic layout (block diagram level), function and operation of inertial navigation and reference systems
- the operating principles of inertial navigation and reference systems including:
 - terminology

- fundamental principles of inertial navigation
- two degree of freedom systems
- semi-analytical systems
- strapdown systems
- ring laser gyroscopes
- the various methods of navigation and how they are used by both aircraft conventional and electronic navigational instruments and systems
- maintenance requirements and troubleshooting procedures for the systems being maintained
- work health and safety (WHS) practices for maintenance tasks relating to aircraft inertial navigation and reference systems and components
- maintenance manuals for maintenance tasks relating to for aircraft inertial navigation and reference systems and components
- relevant regulatory requirements and standard procedures for the systems being maintained.

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 inertial navigation and reference 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 inertial navigation and reference systems and components
 - tools and equipment specified in the maintenance manuals
 - general and special-purpose tools and ground support and test 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>