



Australian Government

**Assessment Requirements for
MEAAVI0046 Maintain basic aircraft
communication and radio 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 MEA276 Maintain basic aircraft communication and radio 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:

- maintain basic aircraft communication and radio navigation systems and components during scheduled or unscheduled maintenance on a system and at least one major system component or line replacement unit (LRU) from each of the following groups:
 - high frequency (HF) and very high frequency (VHF) communication LRUs, transmission lines and antennas
 - automatic direction finding (ADF), very high frequency omni-directional range (VOR) and global navigation system (GNS) LRUs, transmission lines and antennas
 - air traffic control (ATC) transponders, transmission lines and antennas
 - emergency locator transmitter (ELT)
 - automatic dependent surveillance-broadcast (ADS-B)
- locate and identified radio communication and navigation system components comprising:
 - HF and VHF communications
 - VOR, ADF and GNS
 - ATC transponders
 - ADS-B
 - ELT systems
- locate and identified applicable radio system antennas
- recognise system and component defects, external damage, correct/incorrect installation, attachment hardware (including cabling/harnesses/transmission lines) and security in the following:
 - HF and VHF communications systems
 - VOR, ADF and GNS
 - ATC transponders
 - ADS-B
 - ELT systems

- perform functional testing by applying logic processes and make visual inspections to isolate malfunctions within the above systems and to 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

The must be evidence the candidate has knowledge of:

- component attachment methods
- connection of hardware and plugs
- printed circuit boards
- semiconductors
- fibre optics
- handling precautions for electrostatic sensitive devices
- work health and safety (WHS) practices for basic aircraft communication and radio navigation systems and components
- approved maintenance documentation and aircraft publications relating to radio communication and navigation systems and components
- the general working principles of communication and navigation systems
- basic system layout (block diagram level), function and operation of the following:
 - HF and VHF communications systems
 - VOR, ADF and GNS navigation systems
 - ATC transponders
 - ELT systems
 - ADS-B systems
- radio frequency and communication system maintenance requirements and basic troubleshooting procedures
- maintenance manuals for basic aircraft communication and radio 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 maintaining basic aircraft communication and radio 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 maintaining basic aircraft communication and radio navigation systems and components
- tools and equipment specified in maintenance documentation
- general-purpose tools and test equipment found in most routine situations.

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>