



Australian Government

**Assessment Requirements for
MEAMEC0044 Maintain light aircraft air
cycle air conditioning systems**

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 MEA355 Maintain light aircraft air cycle air conditioning systems.

Performance Evidence

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

- maintain an air cycle air conditioning system and at least four of the following components:
 - valves and regulators
 - heat exchangers, water separators and humidifiers
 - expansion turbines
 - rigid and flexible pipelines, hoses and fittings
 - ducting
 - temperature sensors, temperature controllers, and electrical control circuit wiring or components.
- recognise air cycle air conditioning system and component defects or external damage, correct or incorrect installation and security for the following system components:
 - valves and regulators
 - heat exchangers, water separators and humidifiers
 - expansion turbines
 - rigid and flexible pipelines, hoses and fittings
 - ducting
 - temperature sensors, temperature controllers and electrical control circuit wiring/components
- use hand skills, tools and test equipment in the testing, adjustment and troubleshooting of light aircraft air cycle air conditioning systems and components, including system component removal and installation
- perform system functional tests and checks to isolate system faults
- apply relevant procedures, cleanliness requirements and safety precautions at all times, and as relevant to the systems being maintained.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- work health and safety (WHS) precautions for light aircraft air cycle air conditioning system maintenance and how to obtain personal protective equipment (PPE) and material safety data sheets (MSDSs)
- standard trade practices relating to tool and test equipment usage and installation or securing of system components
- air cycle air conditioning system:
 - terminology
 - layout
 - operation, including component operation and construction
 - electrical temperature control system components
- how to configure the aircraft for inspection, testing and troubleshooting of air cycle air conditioning systems and components
- air cycle air conditioning maintenance requirements and troubleshooting
- component attachment methods
- connection hardware and couplings
- light aircraft air cycle air conditioning system maintenance manuals
- regulatory requirements and standard procedures for light aircraft air cycle air conditioning system maintenance
- maintenance requirements and troubleshooting procedures.
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Assessment Conditions

The following conditions of assessment represent the requirements of the regulators Defence Aviation Safety Authority (DASA) and Civil Aviation Safety Authority (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 light aircraft air cycle air conditioning systems. 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 light aircraft air cycle air conditioning systems
 - 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>