



**Australian Government**

# **MEA223 Inspect aircraft electrical systems and components**

**Release: 2**

# MEA223 Inspect aircraft electrical systems and components

## Modification History

Release 2. Equivalent to MEA223 Inspect aircraft electrical systems and components with amended prerequisite codes.

## Application

This unit of competency requires application of hand skills and the use of system/component knowledge and applicable maintenance publications to inspect aircraft electrical systems and components of fixed and rotary wing aircraft during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

The unit is part of the Avionic Certificate IV (Aircraft Maintenance Stream) training pathways and is also part of the Mechanical Aircraft Maintenance Engineer licensing pathway.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation safety Authority (CASA).

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen maintenance certification licence under Civil Aviation Safety Regulation (CASR) Part 66, in accordance with the licensing provisions in the Companion Volume Implementation Guide.

## Pre-requisite Unit

|        |   |
|--------|---|
| MEA203 | Remove and install advanced aircraft electrical system components |
| MEA246 | Fabricate and/or repair aircraft electrical hardware or parts     |

## Competency Field

Aviation maintenance

## Unit Sector

## Elements and Performance Criteria

Elements describe the essential outcomes. Performance criteria describe the performance needed to demonstrate achievement of the element.

1. Inspect electrical
  - 1.1 Isolation tags are checked and aircraft configured for

systems and components

safe system inspection and operation in accordance with the applicable maintenance manual

- 1.2 Electrical system components and hardware are visually or physically checked for external signs of defects in accordance with applicable maintenance manual while observing all relevant work health and safety (WHS) requirements
- 1.3 Defects are correctly identified and recorded in accordance with standard enterprise procedures

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Electrical systems and components include:

- Alternating current (AC) and/or direct current (DC) power generation, regulation and distribution systems
- Battery installations and bus ties/interlocks
- Rotary and static inverters and transformer rectifier (TR) units
- Air cycle air conditioning and pressurisation systems
- Flight and engine control systems
- Ignition and starting systems
- Fire/smoke detection and extinguishing
- Lighting
- Master and caution warning systems
- Equipment and furnishing
- Equipment cooling and ventilation
- Position indicating systems
- Fuel storage and distribution
- Propeller control systems (where applicable to the enterprise)
- Landing gear indication and anti-skid (where applicable to the enterprise)
- Ice and rain protection (where applicable to the

- Procedures and requirements include:**
- enterprise)
  - Wastewater (where applicable to the enterprise)
  - Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

## Unit Mapping Information

Release 2. Equivalent to MEA223 Inspect aircraft electrical systems and components

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>