



Australian Government

MEA399 Lay out and set up aircraft systems

Release: 1

MEA399 Lay out and set up aircraft systems

Modification History

Release 1. Equivalent to MEA340 Lay out and set up aircraft systems. Revised as a result of changed prerequisites. Unit codes updated.

Application

This unit of competency describes the skills and knowledge required to lay out and set up aircraft systems. It requires the application of basic knowledge of aircraft system design and schematic layout, including the relative advantages of different types of systems.

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).

This unit forms part of the CASA requirement for maintenance certification licences under Civil Aviation Safety Regulation (CASR) Part 66. Where a CASA licensing outcome is sought, users must refer to the licensing provisions in the MEA Aeroskills Companion Volume Implementation Guide.

Pre-requisite Unit

MEA154 Apply work health and safety practices in aviation maintenance

Competency Field

Aeronautical engineering

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Select and lay out schematically aircraft mechanical systems

PERFORMANCE CRITERIA

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

- 1.1 Identify mechanical system applications in aircraft design and their relative advantages and disadvantages compared to other system types
- 1.2 Identify components of mechanical systems
- 1.3 Select a mechanical system for an application, sketch the schematic layout, and label all components

ELEMENTS**PERFORMANCE CRITERIA**

- | | |
|--|--|
| | 1.4 Identify mechanical system maintenance requirements |
| 2. Select and lay out schematically aircraft hydraulic systems | 2.1 Identify hydraulic system applications in aircraft design, their operation, and their relative advantages and disadvantages compared to other system types |
| | 2.2 Identify aircraft hydraulic fluids, their characteristics and handling precautions |
| | 2.3 Identify components of hydraulic systems and describe their operation in general terms |
| | 2.4 Select a hydraulic system for an application, sketch the schematic layout, and label all components |
| | 2.5 Determine hydraulic system maintenance requirements |
| 3. Select and lay out schematically aircraft pneumatic systems | 3.1 Identify pneumatic system applications in aircraft design, their operation, and their relative advantages and disadvantages compared to other system types |
| | 3.2 Determine components of pneumatic systems and describe their operation in general terms |
| | 3.3 Select a pneumatic system for an application, sketch the schematic layout, and label all components |
| | 3.4 Identify pneumatic system maintenance requirements |
| 4. Select and lay out schematically aircraft fuel storage and distribution systems | 4.1 Identify typical fuel storage and distribution systems used in aircraft design |
| | 4.2 Determine components of fuel storage and distribution systems and describe their operation |
| | 4.3 Select a fuel storage and distribution system for an application, sketch the schematic layout, and label all components |
| | 4.4 Determine types of aircraft fuel, their characteristics, and handling precautions |
| | 4.5 Identify fuel storage and distribution system maintenance requirements |
| 5. Set up and operate a simple hydraulic system | 5.1 Sketch the hydraulic system and label all components |
| | 5.2 Obtain required components according to hydraulic |

ELEMENTS**PERFORMANCE CRITERIA**

system requirements

- 5.3 Assemble and operate system while observing work health and safety (WHS) requirements, including the use of safety data sheets (SDS) and items of personal protective equipment (PPE)

Foundation Skills

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

Unit Mapping Information

Release 1. Equivalent to MEA340 Lay out and set up aircraft systems.

Links

Companion Volume implementation guides are found in VETNet -

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