



Australian Government

MEA205 Remove and install advanced aircraft instrument system components

Release: 1

MEA205 Remove and install advanced aircraft instrument system components

Modification History

Release 1 - New unit of competency

Application

This unit of competency requires application of hand skills and the use of maintenance documentation/publications in the removal and installation of components of advanced instrument systems 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 pathway. It covers the skills and knowledge required for the removal and installation of general instrument system components in the more advanced types of both fixed and rotary wing aircraft.

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

MEA201 Remove and install miscellaneous aircraft electrical hardware/components

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. Remove advanced aircraft instrument system components | 1.1 System is rendered safe and prepared in accordance with the applicable maintenance manual and isolation tags are fitted, where necessary, to ensure personnel safety |
| | 1.2 Instrument component removal is carried out in accordance with the applicable maintenance manual while observing all relevant work health and safety (WHS) requirements |
| | 1.3 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures |
| | 1.4 Removed components are tagged and packaged in accordance with specified procedures |
| 2. Install advanced aircraft instrument system components | 2.1 Instrument components to be installed are checked to confirm correct part numbers, modification status, serviceability and shelf life |
| | 2.2 Physical installation of instrument components is performed in accordance with the applicable maintenance manual and regulatory requirements, ensuring appropriate adjustment/alignment is carried out |
| | 2.3 System is reinstated to correct operational condition in preparation for testing, as necessary |
| | 2.4 Required maintenance documentation is completed and processed 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.

Instrument components include:

- Pitot/static system components, airspeed indicators (ASIs), vertical speed indicators (VSIs), air data system components, machmeters, altimeters including servo and encoding altimeters, outside air temperature gauge (OAT) angle of attack and stall warning/avoidance systems
- Turn and slip, directional gyros (DGs), artificial horizons (AHs), attitude and heading reference system (AHRS) components (where applicable to enterprise), remote reading gyro compass system components and direct reading compasses
- Turbine engine indication systems
- Transmitter/indicator measuring instrument systems (pressure, temperature and position)
- Fuel quantity indication and flow systems components
- Ground proximity warning system (GPWS) (where applicable to the enterprise)
- Flight data recorder (FDR) (where applicable to the enterprise)

Procedures and requirements include:

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 1 – equivalent to MEA205C Remove and install advanced aircraft instrument system components

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>