



Australian Government

MEA301 Perform aircraft flight servicing

Release: 2

MEA301 Perform aircraft flight servicing

Modification History

Release 2. Equivalent to MEA301 Perform aircraft flight servicing with amended prerequisite codes.

Application

This unit of competency requires application of hand skills and standard trade practices in the performance of pre and post-flight servicing activities and the application of aircraft ground handling procedures on both fixed and rotary wing aircraft.

The unit is part of Avionic and Mechanical Certificate IV (Aircraft Maintenance Stream) training pathways.

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

MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA154	Apply work health and safety practices in aviation maintenance
MEA155	Plan and organise aviation maintenance work activities
MEA156	Apply quality standards during aviation maintenance activities
MEA157	Complete aviation maintenance industry documentation
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

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. Prepare for flight | 1.1 Aircraft is positioned as required |
| | 1.2 Ground locks, aircraft support and safety devices and covers are removed and stowed in accordance with maintenance documentation |
| | 1.3 Aircraft tie-down devices are removed and stowed/stored |
| 2. Inspect aircraft and systems | 2.1 Preparation of the aircraft and systems is appropriate to allow for proper inspection |
| | 2.2 Aircraft and systems are visually or physically checked for external signs of defects in accordance with maintenance documentation while observing all relevant work health and safety (WHS) requirements |
| 3. Replenish aircraft systems | 3.1 Fluid level checks and replenishments are carried out in accordance with maintenance documentation requirements while observing all relevant WHS requirements, including the use of material safety data sheets (MSDS) and items of personal protective equipment (PPE) |
| | 3.2 Maintenance of gaseous levels (nitrogen and compressed air) is carried out in accordance with maintenance documentation requirements while observing all relevant WHS requirements, including the use of MSDS and items of PPE |
| | 3.3 Role equipment/components requiring pre-flight replacement are changed as required by maintenance documentation |
| | 3.4 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.

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|--|---|
| Flight servicing activities are performed during: | <ul style="list-style-type: none">• Preparation for flight following maintenance• Before flight servicing• After flight servicing• Turn around servicing |
| Maintenance documentation includes: | <ul style="list-style-type: none">• Maintenance manuals• Servicing schedules• Applicable airworthiness regulations• Aircraft maintenance program |
| Procedures and requirements include: | <ul style="list-style-type: none">• Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise |

Unit Mapping Information

Release 2. Equivalent to MEA301 Perform aircraft flight servicing

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEA301 Perform aircraft flight servicing

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Performance Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and must include:

- ground handling of aircraft
- using hand skills and tools to perform flight servicing activities
- correctly installing and securing of aircraft hardware
- locating, using and correctly stowing of aircraft safety and security equipment (includes ground locks, covers, support and safety devices and tie-down devices)
- applying ground power (where applicable)
- inspecting structure for damage and deterioration
- recognising external signs of component damage, leakage and security in aircraft systems
- recognising visual signs of damage, leakage and security with regard to engines and propellers (where applicable)
- refuelling the aircraft with the correct type, quantity and distribution of fuel
- checking and replenishing fluid level using the correct fluids
- recharging of gaseous levels using the correct support equipment and procedures
- checking fire protection systems (where applicable) for correct gas charge levels and portable fire extinguishers for serviceability and correct stowage
- replacing role equipment requiring pre-flight replacement
- using of maintenance data and manuals to determine flight servicing requirements and procedures
- applying standard procedures
- observing all relevant WHS procedures, including the use of MSDS and items of PPE.

It is essential that the specific aspects of the aircraft flight servicing are checked to ensure quality and safety standards are fully observed, understood and complied with. Safety precautions applicable to the system being maintained are to be fully observed. An understanding of system operation as it relates to the work must be demonstrated before undertaking any action.

Evidence of knowledge of system operation, recognition of defects and completion of documentation, the relationship of individual components and the links with other systems will be necessary to the extent required for completion of flight servicing before undertaking any action.

Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- standard trade practices relating to tool usage and installation/securing of aircraft hardware
- the aircraft structure to the extent required to be able to recognise typical types of structural damage and deterioration during flight servicing activities
- system layout, operation and typical external signs of faults to the extent required to perform flight servicing activities
- aircraft flight servicing requirements
- ground de-icing of aircraft
- aircraft ground handling procedures, including towing and marshalling
- aircraft safety and security equipment, including:
 - ground locks
 - wheel chocks
 - covers
 - support and safety devices
 - tie-down devices and picketing
- types and characteristics of fuels and fuel additives
- types and characteristics of lubricants
- types and characteristics of hydraulic fluids
- WHS procedures relating to flight servicing activities
- how to obtain MSDS
- selection and use of PPE
- relevant maintenance manuals
- relevant regulatory requirements and standard procedures.

Assessment Conditions

- Competency should be assessed in the work environment or simulated work environment using procedures, tools and equipment specified in maintenance documentation. It is also expected that applicable general-purpose tools, test and ground support equipment found in most routine situations would be used where appropriate.
- The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders and must be rigorously observed.
- A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of this unit of competency are being achieved under routine supervision on the following flight servicing that are applicable to the enterprise:
 - preparation for flight following maintenance
 - before flight servicing

- after flight servicing
- turn around servicing.
- This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).
- Where the unit is to be used for CASA licensing purposes the Assessor must also meet the criteria specified in the CASR Part 147 Manual of Standards.

Links

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