



Australian Government

Department of Education, Employment and Workplace Relations

MEA301C Perform aircraft flight servicing

Revision Number: 2

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Modification History

Minor formatting and editorial changes made. Prerequisite unit version code updated.

Unit Descriptor

This unit of competency is part of Avionic and Mechanical Certificate IV (Aircraft Maintenance Stream) training pathways. It covers the competencies required to perform maintenance and system replenishment activities associated with flight servicing. This unit is used in workplaces that operate under the airworthiness regulatory systems of the ADF and CASA.

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen Aircraft Maintenance Engineer Licence under CASR Part 66, in accordance with the licensing provisions in Section 3, Assessment Guidelines.

Application of the Unit

This unit 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.

Applications include the performance of flight servicing on both fixed and rotary wing aircraft.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

MEA101B	Interpret occupational health and safety practices in aviation maintenance
MEA103B	Plan and organise aviation maintenance work activity
MEA105C	Apply quality standards applicable to aviation maintenance processes
MEA107B	Interpret and use aviation maintenance industry manuals and specifications
MEA108B	Complete aviation maintenance industry documentation
MEA109B	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

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
3. Replenish aircraft systems
 - 3.1. Fluid level checks and replenishments are carried out in accordance with maintenance documentation requirements
 - 3.2. Maintenance of gaseous levels (nitrogen and compressed air) is carried out in accordance with maintenance documentation requirements
 - 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

Required Skills and Knowledge

Required skills

Look for evidence that confirms skills in:

- 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 aircraft safety and security equipment (including 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 maintenance data and manuals to determine flight servicing requirements and procedures
- applying standard procedures
- observing all relevant OHS procedures, including the use of MSDS and items of PPE

Required knowledge

Look for evidence that confirms 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
- OHS procedures relating to flight servicing activities
- how to obtain MSDS
- selection and use of PPE
- relevant maintenance manuals
- relevant regulatory requirements and standard procedures

Evidence Guide

<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to perform flight servicing activities on the occasions as listed in the variables that are relevant to the organisation in accordance with relevant maintenance documentation, while applying all relevant OHS procedures and standard processes.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>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.</p> <p>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. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.</p> <p>A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of this unit of competency are being achieved under routine supervision on the flight servicings listed in Groups 1 to 4 of the Range Statement that are applicable to the enterprise. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.</p>
<p>Context of and specific resources for assessment</p>	<p>Competency should be assessed in the work environment using procedures, tools and equipment specified in maintenance documentation. It is also expected that general purpose tools, test and ground support equipment found in most routine situations would be used where appropriate.</p>
<p>Method of assessment</p>	

Guidance information for assessment	
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Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Note	Range statements listed below are numbered to facilitate specification of the assessment requirements included in the Evidence Guide
Flight servicing activities	<p>Flight servicing activities may be performed during:</p> <ol style="list-style-type: none"> 1. Preparation for flight following maintenance 2. Before flight servicing 3. After flight servicing 4. Turn around servicing
Maintenance documentation	<p>Maintenance documentation may include:</p> <ul style="list-style-type: none"> • maintenance manuals • servicing schedules • applicable airworthiness regulations • aircraft maintenance program
Procedures and requirements	Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Sector(s)

Aviation maintenance

Competency field

Co-requisite units

Not applicable