



Australian Government

Department of Education, Employment and Workplace Relations

MEA358A Re-cover aircraft fabric surfaces

Revision Number: 2

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Modification History

Minor formatting and editorial changes made.

Unit Descriptor

This unit of competency is part of the Mechanical Certificate IV (Aircraft Maintenance Stream) training pathway. It covers the competencies required to re-cover aircraft fabric surfaces.

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, knowledge of fabric surfaces and maintenance publications to re-cover aircraft fabric surfaces.

Applications include aircraft and aircraft components that are covered with fabric.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable

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

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| 1. Re-cover aircraft fabric surfaces | <ul style="list-style-type: none">1.1. Required covering materials and methods are determined from maintenance manual and/or approved data1.2. Required finishing scheme is determined from maintenance manual and/or approved data1.3. Materials and equipment required are organised1.4. Necessary structure and system inspection and preparation prior to covering is correctly performed1.5. Fabric covering is correctly fabricated and attached to the structure1.6. Drainage holes are correctly created1.7. Applicable finishing scheme is correctly applied1.8. Components are adjusted and/or re-balanced, where necessary, to operate within prescribed specifications1.9. Required maintenance/repair documentation is completed and processed in accordance with standard enterprise procedures1.10. Where required, repaired components or assemblies are tagged, sealed and packaged or cradled in accordance with specified procedures |
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Required Skills and Knowledge

Required skills

Look for evidence that confirms skills in:

- applying relevant OHS procedures, including the correct selection and use of MSDS and PPE
- using approved maintenance documentation and aircraft publications relating to aircraft fabric surfaces
- inspecting structural members, wiring, grommets and system components and initiation of any necessary repair or rectification action
- fabricating and fitting fabric covering with appropriately placed inspection panels, zips and drainage holes
- applying fabric finishing scheme ready for paint
- recognising defective doping

Required knowledge

Look for evidence that confirms knowledge of:

- OHS hazards and how to obtain and use relevant MSDS and PPE
- regulatory requirements and industry publications relating to fabric covering of aircraft surfaces
- aircraft fabric surface covering and finishing materials and principles
- fabric-covered component attachment methods
- types of fabric and related characteristics
- types of tape, cord and thread and their relative advantages and disadvantages
- cements and finishing scheme materials, their characteristics, uses, storage requirements and related safety precautions
- fabric sewing techniques
- application techniques for cements and finishing schemes
- inspection and testing requirements for new fabric prior to use
- the need for re-balancing of flight control surfaces after re-covering, finishing scheme application and painting
- aircraft structure and system inspection requirements prior to re-covering with fabric
- the application of flight loads to fabric-covered surfaces, and related failure mechanisms
- the methods and procedures used (including doping and finishing) in re-covering components, such as wings, fuselages and control surfaces
- the requirements for the placement of inspection panels and zips, and for the creation of drainage holes

Evidence Guide

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.

Overview of assessment	A person who demonstrates competency in this unit must be able to apply hand skills, knowledge of fabric surfaces and maintenance publications to re-cover aircraft fabric surfaces.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The underlying skills inherent in this unit should be transferable across a range re-covering applications associated with aircraft fabric surfaces. It is essential that the procedures take into account all aircraft and personal safety precautions, especially with regard to the use of finishing scheme materials. Evidence of transferability of skills and knowledge related to re-covering of aircraft fabric surfaces is essential. This may be demonstrated through application across a range of aircraft fabric surfaces. Ability to interpret re-covering procedures and specifications and apply them in practice is critical. The application of the procedures should also clearly indicate knowledge of structural flight loads. A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the unit of competency are being achieved under routine supervision on a representative range of fabric surface re-covering tasks. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.
Context of and specific resources for assessment	Competency should be assessed in the work environment or simulated work environment using tools and equipment specified in maintenance documentation. It is also expected that general purpose tools and test equipment found in most routine situations would be used where appropriate.
Method of assessment	
Guidance information for assessment	

Range Statement

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.

Scope	This unit of competency applies to the re-covering of a fabric-covered surfaces and the correct application of the approved finishing scheme
Application	Application of this unit may relate to: • scheduled or unscheduled maintenance • individual or team-related activities
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

MEA357A Inspect, test and repair aircraft fabric surfaces