



Australian Government

**Assessment Requirements for MEA365
Assess structural repair/modification
requirements and evaluate structural
repairs and modifications**

Release: 1

Assessment Requirements for MEA365 Assess structural repair/modification requirements and evaluate structural repairs and modifications

Modification History

Release 1 - New unit of competency

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:

- interpreting damage limits and identifying applicable repair schemes
- interpreting all requirements of modification drawings and assessing work against them
- evaluating completed repairs and modifications for compliance with the applicable data and with airworthiness requirements
- recognising weld defects
- performing colour contrast dye penetrant NDT to confirm defects in applicable aircraft components
- application of relevant WHS practices, including the use of MSDS and PPE.

The underlying skills inherent in this unit should be transferable across a range of repair and modification applications related to the structure of aircraft. It is essential that the repair and modification procedures take into account all applicable safety precautions. The ability to interpret repair scheme and modification requirements, including applicable specifications (allowable limits) and ensure that they are applied in practice is critical.

This must be demonstrated through the correct determination of repair requirements and the determination of compliance with repair schemes and modification drawings.

The ability to assess sound weld repairs must also be demonstrated.

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 at a post-trade level of:

- application of regulatory requirements and of manufacturer's requirements in the determination of structural maintenance needs
- assessment of the extent of damage and an understanding of the need for a professional engineer to develop or extend a repair scheme where damage is beyond the limits of maintenance manual repair schemes, including the identification of relevant personnel and authorities

- assessment of new equipment or component mounting requirements and an understanding of the need to have drawings and specifications developed by a professional engineer, including the identification of relevant personnel and authorities
- the need for shoring and support to maintain aerodynamic shape and for safe performance of structural maintenance
- the need for mensuration checks and the techniques used to perform them
- how to determine welding requirements and the recognition of sound welds
- the correct application of colour contrast dye penetrant NDT and the limitations of the testing method
- dye penetrant test procedures:
 - relevant WHS precautions and how to obtain PPE and MSDS
 - cleaning and preparation processes and materials
 - consequences of incorrect preparation
 - basic concepts and principles of NDT and appropriate use of the colour contrast dye penetrant technique
 - general properties of penetrants (penetrability, removability and visibility)
 - types of emulsifiers and developers
 - established procedures and techniques
 - defect types and their consequences
 - post-test cleaning methods
- aircraft welding regulations
- aircraft welding processes and relevant parent metal groups
- defects applicable to each welding process and parent metal group.

Assessment Conditions

- Competency will be assessed in the training environment using a combination of practical exercises and scenarios. Applicable work plans should take account of applicable safety (including safe handling of heavy components) and quality requirements in accordance with the industry and regulatory standards.
- The following conditions of assessment represent the requirements of CASA 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 elements and performance criteria of the unit of competency are being achieved across the tasks and practices listed in the Range of Conditions under supervision without intervention.
- This shall be established via simulated activities at the CASR Part 147 Maintenance Training Organisation and performance during observed workplace activities.
- The Assessor must meet the criteria specified in the CASR Part 147 Manual of Standards.

Links

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

