



Australian Government

**Assessment Requirements for MEA235
Perform advanced troubleshooting in
aircraft avionic maintenance**

Release: 1

Assessment Requirements for MEA235 Perform advanced troubleshooting in aircraft avionic maintenance

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.

- Skill must be demonstrated in the diagnosis of faults that are beyond the coverage of maintenance manual fault diagnosis guides in simulated applications in the training environment and/or in the workplace across a representative range of systems and components as specified in the Assessment Conditions.
- The underlying skills inherent in this unit should be transferable across a range of inspection, testing and troubleshooting applications related to avionic systems, and where applicable other system interfaces/integration. It is essential that system testing procedures, cleanliness requirements and safety precautions applicable to the system being maintained are fully observed, understood and complied with. Ability to interpret inspection procedures and specifications (allowable limits) and apply them in practice is critical, as is the demonstrated ability to apply fundamental system theory in the logical diagnosis of complex faults.
- Evidence of transferability of skills and knowledge related to performance and supervision of inspection, testing and troubleshooting is essential. This must be demonstrated through application across a number of aircraft avionic systems, including system interfaces/integration.
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Knowledge Evidence

For systems and components relevant to the scope of the licence/ratings sought as per CASR Parts 42, 66 and 145 Manuals of Standards, look for evidence that confirms knowledge of:

- theory related to system operation and interfaces between systems and with electrical/electronic control media to a level that will facilitate the diagnosis of faults beyond the level of maintenance manual fault diagnosis guides using reported symptoms and functional test results
- component construction and theory of operation to a level that will facilitate the diagnosis of faults beyond the level of maintenance manual fault diagnosis guides using reported symptoms and functional test results
- advanced fault diagnostic techniques
- condition monitoring and trend analysis techniques.

Assessment Conditions

- Competency is assessed in the workplace or simulated workplace and shall involve successfully dealing with a number of maintenance and fault scenarios across a range of avionic systems and related system components of:
 - electrical systems
 - electronic systems
 - instrument systems
 - radio communication and navigation systems
 - autoflight systems
- The troubleshooting approach should clearly demonstrate an in-depth knowledge of underpinning theory of a system, with this knowledge being used in a logical process to augment and extend the scope of the aircraft/system fault-finding guide. The fault rectification work plan 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 relevant elements and performance criteria of the unit of competency are being achieved under supervision without intervention and the ability has been demonstrated to identify the causes of defects not covered fully by maintenance manual fault diagnosis guides. Competency shall be assessed via simulated activities at the CASR Part 147 Maintenance Training Organisation and through performance during observed workplace activities.
- The Assessor must meet the criteria specified in the CASR Part 147 Manual of Standards.
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Links

Companion Volume implementation guides are found in VETNet -

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