



Australian Government

MEA297 Maintain basic avionic systems and components

Release: 1

MEA297 Maintain basic avionic systems and components

Modification History

Release 1. Equivalent to MEA289 Maintain basic light aircraft avionic systems and components. Code changes due to changed titles.

Application

This unit of competency describes the skills and knowledge required to maintain basic avionic systems and components. It involves inspecting, testing and troubleshooting systems; and removing and installing components. The unit requires the application of hand skills and the use of maintenance documentation and publications. Work may be performed individually or as part of a team.

The unit applies to the scheduled and unscheduled maintenance of basic fixed wing and rotary wing aircraft where the avionic systems are limited to very high frequency (VHF) communications, basic audio systems, automatic direction finding (ADF) and very high frequency omni-range (VOR) radio navigation systems, stand-alone global navigation systems (GNS), air traffic control (ATC) transponders, and automatic dependent surveillance-broadcast (ADS-B).

This unit forms part of the Civil Aviation Safety Authority (CASA) requirement for maintenance certification licences under Civil Aviation Safety Regulation (CASR) Part 66. Where a CASA licensing outcome is sought, users must refer to the licensing provisions in the MEA Aeroskills Companion Volume Implementation Guide.

Pre-requisite Unit

MEA246 Fabricate and/or repair aircraft electrical hardware or parts

Competency Field

Aviation maintenance

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Inspect basic aircraft avionic systems and components

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Use maintenance documentation and modification status, including system defect reports where relevant, to identify specific inspection requirements

ELEMENTS**PERFORMANCE CRITERIA**

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| | 1.2 Check isolation tags and configure aircraft for safe system inspection and operation according to applicable maintenance manual |
| | 1.3 Visually or physically check avionic systems for external signs of defects according to applicable maintenance manual and work health and safety (WHS) requirements |
| | 1.4 Correctly identify and report defects |
| 2. Test and adjust basic aircraft avionic systems | 2.1 Prepare aircraft and systems according to applicable maintenance manual for the application of power/system operation |
| | 2.2 Functionally test avionic systems for evidence of serviceability or malfunction according to maintenance manual |
| | 2.3 Calibrate or adjust system according to maintenance manual and as appropriate |
| 3. Troubleshoot basic aircraft avionic systems | 3.1 Use available information from maintenance documentation and inspection and test results, where necessary, to assist in fault determination |
| | 3.2 Use maintenance manual fault diagnosis guides and logic processes to ensure efficient and accurate troubleshooting using test sets, maintenance data, and fault-finding charts or similar, to line replacement level |
| | 3.3 Obtain specialist advice where required to assist with the troubleshooting process |
| | 3.4 Locate system faults and clearly identify and correctly record their causes in maintenance documentation where required and according to standard organisational procedures |
| | 3.5 Determine rectification requirements |
| 4. Remove and install basic aircraft avionic system components | 4.1 Render system safe and prepared according to applicable maintenance manual and fit isolation tags where necessary to ensure personnel safety |
| | 4.2 Remove avionic component according to applicable maintenance manual while observing WHS requirements |
| | 4.3 Complete and process required maintenance documentation |

ELEMENTS**PERFORMANCE CRITERIA**

- according to standard organisational procedures
- 4.4 Tag and package removed components according to specified procedures
 - 4.5 Check avionic components to be installed to confirm correct part numbers, modification status, serviceability, and shelf life
 - 4.6 Perform physical installation of avionic components according to applicable maintenance manual
 - 4.7 Reinststate system to correct operational condition in preparation for testing and calibration or adjustment, as necessary
 - 4.8 Complete and process required maintenance documentation according to standard organisational procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Release 1. Equivalent to MEA289 Maintain basic light aircraft avionic systems and components.

Links

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