



Australian Government

MEAAVI0059 Fit avionic modification sheet metal components

Release: 1

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Modification History

Release 1. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Assessment Requirements clarified. Supersedes and is equivalent to MEA290 Fit avionic modification sheet metal components.

Application

This unit describes the skills and knowledge required to apply hand skills and use maintenance publications and modification documentation to perform sheet metal work associated with avionic modifications on small fixed and rotary wing aircraft during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Civil Aviation Safety Authority (CASA) and the Defence Aviation Safety Authority (DASA).

Any other relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

MEA107 Interpret and use aviation maintenance industry manuals and specifications

MEA154 Apply work health and safety practices in aviation maintenance

MEA155 Plan and organise aviation maintenance work activities

MEA156 Apply quality standards during aviation maintenance activities

MEA157 Complete aviation maintenance industry documentation

MEA158 Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Competency Field

Aviation maintenance

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to fit avionic modification sheet metal components	1.1 Identify sheet metal components to be fitted, in accordance with modification instructions and maintenance documentation 1.2 Select and organise all required materials and equipment in accordance with the applicable modification instructions and

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	maintenance documentation
2. Fit avionic modification sheet metal components	2.1 Fit sheet metal components in accordance with modification instructions, ensuring that aircraft standard practices and process requirements are carried out while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and personal protective equipment (PPE) 2.2 Clean work area of all waste material in accordance with standard enterprise procedures 2.3 Complete and process required documentation in accordance with standard enterprise procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret modification instructions, maintenance manuals and general maintenance information.
- Writing skills to record and report on modification activities.
- Numeracy skills to interpret technical information.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEA290 Fit avionic modification sheet metal components.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEAAVI0059 Fit avionic modification sheet metal components

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Performance Evidence

There must be evidence the candidate has completed all the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- fit avionic modification sheet metal components during scheduled or unscheduled maintenance on the following range of sheet metal components:
 - doublers for the installation of antennas
 - brackets for the installation of avionic system components
 - racks for components, such as transmitters or receivers
 - hardware for the support of antenna cables and system electrical wiring.
- for the sheet metal components being worked on:
 - identify various aircraft metals used and their basic metallurgy properties by interpretation of markings, numbering systems or visual, chemical or mechanical means
 - handle and store aircraft metals used, including sealing agents, to industry standards
 - identify aircraft sheet metal assembly fasteners (metal and non-metallic) by interpretation of markings, numbering systems, size, shape and colour
 - correctly interpret modification drawings and hand sketches
 - use appropriate hand tools and machines to fit avionic modification sheet metal components to the aircraft
 - generate freehand precision holes
 - apply corrosion prevention techniques during component fitment
 - restore sealing and surface finishes
 - apply safety precautions, quality requirements and standard practice and process associated with assembly.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- aircraft sheet metal component construction principles
- identification of primary, secondary and tertiary structure
- aircraft sheet metal assembly fasteners, their characteristics and identification
- fits and clearances for fasteners

- fitting methods for fasteners
- use of grip pins
- corrosion of aircraft structure and its prevention
- application of surface finishes
- work health and safety (WHS) procedures for fitting avionic modification sheet metal components
- maintenance documentation for fitting avionic modification sheet metal components
- how to obtain material safety data sheets (MSDS)
- use of appropriate personal protective equipment (PPE).

Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (DASA and CASA) and maintenance stakeholders and must be rigorously observed.

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in fitting avionic modification sheet metal components. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to fitting avionic modification sheet metal components
 - tools and equipment specified in maintenance documentation
 - general-purpose tools and test equipment required for fitting avionic modification sheet metal components.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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