



Australian Government

MEA40618 Certificate IV in Aeroskills (Avionics)

Release 2

MEA40618 Certificate IV in Aeroskills (Avionics)

Modification History

Release 2. Unit codes updated. Packaging rules and Groups clarified. Supersedes and is equivalent to MEA40618 Certificate IV in Aeroskills (Avionics) (Release 1).

Release 1. Supersedes and equivalent to MEA40615 Certificate IV in Aeroskills (Avionics). Unit codes updated.

Qualification Description

This qualification applies to employees of Continuing Airworthiness Management Organisations (CAMOs) or to members of the Australian Defence Force (ADF) who perform scheduled inspections, fault diagnosis and repair, and modification of aircraft electrical, instrument and radio systems and system components.

The qualification is suitable for delivery as an apprenticeship and may apply either to aircraft maintenance performed on flight lines/ramps and in hangars or to avionic component repair and overhaul performed in workshops. These outcomes are defined in two streams:

- aircraft maintenance stream
- component maintenance workshop stream.

The qualification consists of:

- common units that apply to all Aeroskills specialist streams at Certificate III and IV levels
- avionic technical stream units relating to either aircraft avionic system and component maintenance or to component repair and overhaul
- one mechanical technical stream unit that is applicable to the aircraft maintenance stream
- one imported unit that is applicable to the aircraft maintenance stream.

Because of the wide application of this qualification, there is considerable flexibility in the selection of technical stream units and individuals should be mindful of their future career aspirations when selecting units for, in particular, the aircraft maintenance stream. Provided that the correct elective units are selected, the qualification articulates with the Diploma of Aeroskills (Avionics), which qualifies individuals for the grant by the Civil Aviation Safety Authority (CASA) of a B2 Aircraft Maintenance Engineer License.

The qualification also provides credits towards the MEA50422 Diploma of Aviation Maintenance Management and the MEA60222 Advanced Diploma of Aviation Maintenance Management.

Entry Requirements

Not applicable

Packaging Rules

To be awarded the MEA40618 Certificate IV in Aeroskills (Avionics – aircraft maintenance stream), competency must be demonstrated in 25 units, consisting of:

- 12 core units
- 13 units from Group A, chosen according to the unit selection guidelines.

To be awarded the MEA40618 Certificate IV in Aeroskills (Avionics – component maintenance workshop stream), competency must be shown in 16 units, consisting of:

- 12 core units
- the 1 unit in Group B
- 3 units from Group C, chosen according to the unit selection guidelines.

CORE UNITS

Both streams: complete all units.

Unit Code	Unit Title	Prerequisites
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA118	Conduct self in the aviation maintenance environment	
MEA148	Apply mathematics and physics in aviation maintenance	
MEA154	Apply work health and safety practices in aviation maintenance	
MEA155	Plan and organise aviation maintenance work activities	MEA154
MEA156	Apply quality standards during aviation maintenance activities	MEA107, MEA154
MEA157	Complete aviation maintenance industry documentation	
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158

Unit Code	Unit Title	Prerequisites
MEA246	Fabricate and/or repair aircraft electrical hardware or parts	MEA201, MEA296
MEA296	Use electrical test equipment in aviation maintenance activities	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MSMENV272	Participate in environmentally sustainable work practices	

ELECTIVE UNITS

Group A

Aircraft maintenance stream: choose 13 units while observing the unit selection guidelines in column 4.

Unit code	Unit title	Prerequisites	Unit selection guidelines
AVIF0044	Marshal aircraft		
MEA203	Remove and install advanced aircraft electrical system components	MEA201	Do not take with MEAAVI0002
MEA206	Remove and install aircraft basic radio communication and navigation system components	MEA201	
MEA208	Remove and install aircraft pressurisation control system components	MEA201	
MEA209	Remove and install aircraft oxygen system components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158	
MEA219	Inspect, test and troubleshoot aircraft pressurisation control systems and components	MEA246, MEA208,	Do not take with MEA224 or MEA228
MEA222	Inspect, test and troubleshoot aircraft oxygen	MEA209	

Unit code	Unit title	Prerequisites	Unit selection guidelines
	systems and components		
MEA223	Inspect aircraft electrical systems and components	MEA203, MEA246	Do not take with MEA294 or MEAAVI0008
MEA224	Inspect aircraft instrument systems and components	MEA246, MEA292	Do not take with MEAAVI0009 or MEAAVI0010
MEA225	Inspect fixed wing aircraft automatic flight control systems and components	MEA246, MEA293	Do not take with MEAAVI0014
MEA226	Inspect aircraft electronic systems and components	MEA246, MEA293	Do not take with MEAAVI0010, MEAAVI0011 or MEAAVI0012
MEA227	Test and troubleshoot aircraft electrical systems and components	MEA223	Do not take with MEA294
MEA228	Test and troubleshoot aircraft instrument systems and components	MEA224, MEA226	Do not take with MEAAVI0009 or MEAAVI0010
MEA229	Test and troubleshoot aircraft radio frequency navigation and communications systems and components	MEA226	Do not take with MEAAVI0011, MEAAVI0012 or MEAAVI0013
MEA230	Test and troubleshoot fixed wing aircraft automatic flight control systems and components	MEA225, MEA246	Do not take with MEAAVI0014
MEA231	Inspect, test and troubleshoot rotary wing aircraft automatic flight control systems and components	MEA246, MEA293	Do not take with MEAAVI0015
MEA232	Test and troubleshoot aircraft pulse systems and	MEA226, MEA246	Do not take with MEAAVI0017 or

Unit code	Unit title	Prerequisites	Unit selection guidelines
	components		MEAAVI0018
MEA292	Remove and install advanced aircraft instrument system components		Do not take with MEAAVI0004
MEA293	Remove and install aircraft electronic system components		
MEA294	Inspect, test and troubleshoot advanced aircraft electrical systems and components	MEA203	Do not take with MEA223, MEA227 or MEAAVI0008
MEA301	Perform aircraft flight servicing	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158	
MEAAVI0002	Remove and install basic aircraft electrical system components	MEA201	Do not take with MEA203
MEAAVI0004	Remove and install basic aircraft instrument system components	MEA201	Do not take with MEA292
MEAAVI0008	Inspect, test and troubleshoot basic aircraft electrical systems and components	MEAAVI0002, MEA246	Do not take with MEA223, MEA227 or MEA294
MEAAVI0009	Inspect, test and troubleshoot basic aircraft instrument systems and components	MEAAVI0004, MEA246	Do not take with MEA224, MEA228 or MEAAVI0010
MEAAVI0010	Inspect, test and troubleshoot advanced aircraft instrument systems and components	MEA246, MEA292	Do not take with MEA224, MEA228 or MEAAVI0009
MEAAVI0011	Inspect, test and troubleshoot aircraft basic communication and radio navigation systems and	MEA206, MEA246	Do not take with MEA226 or MEA229

Unit code	Unit title	Prerequisites	Unit selection guidelines
	components		
MEAAVI0012	Inspect, test and troubleshoot advanced aircraft communications systems and components	MEA206, MEA246	Do not take with MEA226 or MEA229
MEAAVI0013	Inspect, test and troubleshoot instrument landing systems and components	MEA206, MEA246, MEA293	Do not take with MEA226 or MEA229
MEAAVI0014	Inspect, test and troubleshoot fixed wing autopilot systems and components	MEA246, MEA293	Take instead of MEA225 and MEA230 if only maintaining 3 axis autopilot system
MEAAVI0015	Inspect, test and troubleshoot rotary wing autopilot systems and components	MEA246, MEA293	Take instead of MEA231 if only maintaining an autopilot system
MEAAVI0017	Inspect, test and troubleshoot aircraft primary radar systems and components	MEA246, MEA293	Do not take with MEA226 or MEA232
MEAAVI0018	Inspect, test and troubleshoot aircraft secondary radar systems and components	MEA246, MEA293	Do not take with MEA226 or MEA232
MEAAVI0030	Inspect, test and troubleshoot aircraft inertial navigation and reference systems and components	MEA246, MEA293	Do not take with MEA226 or MEA228
MEAAVI0031	Inspect, test and troubleshoot aircraft global navigation systems and components	MEA206, MEA246, MEA293	Do not take with MEA226 or MEA229
MEAAVI0038	Use electronic test equipment	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	

Unit code	Unit title	Prerequisites	Unit selection guidelines
MEAAVI0039	Modify and repair aircraft component single-layer printed circuit boards	MEA296, MEAAVI0038	Do not take with MEAAVI0040
MEAAVI0040	Modify and repair aircraft component multi-payer printed circuit boards	MEA296, MEAAVI0038	Do not take with MEAAVI0039
MEAAVI0043	Terminate and repair aircraft optical fibre cable		
MEAAVI0048	Inspect, test and troubleshoot aircraft instrument display systems and components	MEA246, MEA293	Do not take with MEA226 or MEA228
MEAAVI0049	Inspect, test and troubleshoot full authority digital engine control systems	MEA246, MEA293	Do not take with MEA230
MEAAVI0050	Inspect, test and troubleshoot flight management systems and components	MEA246, MEA293	

Group B

Component maintenance workshop stream: complete this unit.

Unit code	Unit title	Prerequisites
MEAAVI0038	Use electronic test equipment	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158

Group C

Component maintenance workshop stream: choose 3 of the units while observing the unit selection guidelines in column 4.

Unit code	Unit title	Prerequisites	Unit selection guidelines
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Unit code	Unit title	Prerequisites	Unit selection guidelines
MEAAVI0037	Test, align and troubleshoot synchro and servo system components	MEA201, MEA296 MEAAVI0038	
MEAAVI0039	Modify and repair aircraft component single-layer printed circuit boards	MEA296, MEAAVI0038	Do not take with MEAAVI0040
MEAAVI0040	Modify and repair aircraft component multi-layer printed circuit boards	MEA296, MEAAVI0038	Do not take with MEAAVI0039
MEAAVI0043	Terminate and repair aircraft optical fibre cable		
MEAAVI0052	Repair and overhaul aircraft pulse system components	MEA296, MEAAVI0038	
MEAAVI0053	Repair and overhaul aircraft display, control and distribution system components	MEA296, MEAAVI0038	
MEAAVI0054	Repair and overhaul aircraft instrument system components	MEA296, MEAAVI0038	
MEAAVI0055	Repair and overhaul aircraft radio frequency	MEA296, MEAAVI0038	
MEAAVI0056	Repair and overhaul aircraft electrical and electro-mechanical components	MEA201, MEA296	
MEAAVI0057	Repair and overhaul aircraft oxygen system	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158	
MEAAVI0058	Repair and overhaul aircraft audio and visual systems and reproducers	MEA296, MEAAVI0038	

Qualification Mapping Information

Release 2. Supersedes and is equivalent to MEA40618 Certificate IV in Aeroskills (Avionics) (Release 1).

Links

Companion Volume implementation guides are found in VETNet -

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