



Australian Government

MEA40615 Certificate IV in Aeroskills (Avionics)

Release 2

MEA40615 Certificate IV in Aeroskills (Avionics)

Modification History

Release 2 - Correction to error of unit title in Group A (Aircraft Maintenance Stream)
MEA213 Inspect, test and troubleshoot advanced aircraft instrument systems and components.

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 defines the exit from an apprenticeship and may apply to either 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 Licence.

The qualification also provides credits towards the MEA50315 Diploma of Aviation Maintenance Management (Avionics) and the MEA60115 Advanced Diploma of Aviation Maintenance Management (Avionics).

Entry Requirements

Not applicable

Packaging Rules

To be awarded the MEA40615 Certificate IV in Aeroskills (Avionics) competency must be demonstrated in:

Aircraft Maintenance Stream

- **twelve (12)** core units consisting of common, imported and some avionic technical stream units
- **thirteen (13)** elective technical stream units chosen from Group A
- Total: **twenty-five (25)** units

OR

Component Maintenance Workshop Stream

- **thirteen (13)** core units consisting of common, imported and avionic technical stream units
- **three (3)** elective technical stream units chosen from Group B
- Total: **sixteen (16)** units

Core units of competency (Aircraft Maintenance Stream)

- Complete all **twelve (12)** mandatory common, technical stream and imported units listed below.

Unit code	Unit title	Prerequisites
MEA101	Interpret work health and safety practices in aviation maintenance	
MEA103	Plan and organise aviation maintenance work activities	MEA101, MEA105 MEA107, MEA108
MEA105	Apply quality standards applicable to aviation maintenance processes	MEA101, MEA107
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA108	Complete aviation maintenance industry documentation	MEA105
MEA109	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	MEA105, MEA108
MEA118	Conduct self in the aviation maintenance environment	
MEA148	Apply mathematics and physics in aviation maintenance	

Unit code	Unit title	Prerequisites
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA246	Fabricate and/or repair aircraft electrical hardware or parts	MEA201, MEA260
MEA260	Use electrical test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MSAENV272B	Participate in environmentally sustainable work practices	

Core units of competency (Component Maintenance Workshop Stream)

- Complete all **thirteen (13)** mandatory common, technical stream and imported units listed below.

Unit code	Unit title	Prerequisites
MEA101	Interpret work health and safety practices in aviation maintenance	
MEA103	Plan and organise aviation maintenance work activities	MEA101, MEA105 MEA107, MEA108
MEA105	Apply quality standards applicable to aviation maintenance processes	MEA101, MEA107
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA108	Complete aviation maintenance industry documentation	MEA105
MEA109	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	MEA105, MEA108
MEA118	Conduct self in the aviation maintenance environment	
MEA148	Apply mathematics and physics in aviation maintenance	

Unit code	Unit title	Prerequisites
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA246	Fabricate and/or repair aircraft electrical hardware or parts	MEA201, MEA260
MEA260	Use electrical test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA261	Use electronic test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MSAENV272B	Participate in environmentally sustainable work practices	

Elective units of competency

Group A (Aircraft Maintenance Stream)

- Choose **thirteen (13)** of the technical stream units listed below while observing the unit selection guidelines in column 4.

Unit code	Unit title	Prerequisites	Unit selection guidelines
MEA202	Remove and install basic aircraft electrical system components	MEA201	Do not take with MEA203
MEA203	Remove and install advanced aircraft electrical system components	MEA201	Do not take with MEA202
MEA204	Remove and install basic aircraft instrument system components	MEA201	Do not take with MEA205
MEA205	Remove and install advanced aircraft instrument system components	MEA201	Do not take with MEA204
MEA206	Remove and install aircraft	MEA201	Elective

Unit code	Unit title	Prerequisites	Unit selection guidelines
	basic radio communication and navigation system components		
MEA207	Remove and install aircraft electronic system components	MEA201	Elective
MEA208	Remove and install aircraft pressurisation control system components	MEA201	Elective
MEA209	Remove and install aircraft oxygen system components	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109	Elective
MEA210	Inspect, test and troubleshoot basic aircraft electrical systems and components	MEA202, MEA246	Do not take with MEA211 or with MEA223 and MEA227
MEA211	Inspect, test and troubleshoot advanced aircraft electrical systems and components	MEA203, MEA246	Do not take with MEA210 or with MEA223 and MEA227
MEA212	Inspect, test and troubleshoot basic aircraft instrument systems and components	MEA204, MEA246	Do not take with MEA213 or with MEA224 and MEA228
MEA213	Inspect, test and troubleshoot advanced aircraft instrument systems and components	MEA205, MEA246	Do not take with MEA212 or with MEA224 and MEA228
MEA214	Inspect, test and troubleshoot aircraft basic communication and radio navigation systems and components	MEA206, MEA246	Do not take with MEA226 and MEA229
MEA215	Inspect, test and troubleshoot advanced aircraft communications systems and components	MEA206, MEA246	Do not take with MEA226 and MEA229
MEA216	Inspect, test and troubleshoot instrument landing systems and	MEA206, MEA207	Do not take with MEA226 and

Unit code	Unit title	Prerequisites	Unit selection guidelines
	components	MEA246	MEA229
MEA217	Inspect, test and troubleshoot fixed wing autopilot systems and components	MEA207, MEA246	Take instead of MEA225 and MEA230 if only maintaining 3 axis autopilot system
MEA218	Inspect, test and troubleshoot rotary wing autopilot systems and components	MEA207, MEA246	Take instead of MEA231 if only maintaining an autopilot system
MEA219	Inspect, test and troubleshoot aircraft pressurisation control systems and components	MEA208, MEA246	Do not take with MEA224 and MEA228
MEA220	Inspect, test and troubleshoot aircraft primary radar systems and components	MEA207, MEA246	Do not take with MEA226 and MEA232
MEA221	Inspect, test and troubleshoot aircraft secondary radar systems and components	MEA207, MEA246	Do not take with MEA226 and MEA232
MEA222	Inspect, test and troubleshoot aircraft oxygen systems and components	MEA209	Elective
MEA223	Inspect aircraft electrical systems and components	MEA203, MEA246	Do not take with MEA210 or MEA211
MEA224	Inspect aircraft instrument systems and components	MEA205, MEA246	Do not take with MEA212 or MEA213
MEA225	Inspect fixed wing aircraft automatic flight control systems and components	MEA207, MEA246	Do not take with MEA217
MEA226	Inspect aircraft electronic systems and components	MEA207, MEA246	Do not take with MEA213, MEA214 or MEA215

Unit code	Unit title	Prerequisites	Unit selection guidelines
MEA227	Test and troubleshoot aircraft electrical systems and components	MEA223	Do not take with MEA211
MEA228	Test and troubleshoot aircraft instrument systems and components	MEA224, MEA226	Do not take with MEA212 or MEA213
MEA229	Test and troubleshoot aircraft radio frequency navigation and communications systems and components	MEA226	Do not take with MEA214, MEA215 or MEA216
MEA230	Test and troubleshoot fixed wing aircraft automatic flight control systems and components	MEA225, MEA246	Do not take with MEA217
MEA231	Inspect, test and troubleshoot rotary wing aircraft automatic flight control systems and components	MEA207, MEA246	Do not take with MEA218
MEA232	Test and troubleshoot aircraft pulse systems and components	MEA226, MEA246	Do not take with MEA220 or MEA221
MEA233	Inspect, test and troubleshoot aircraft inertial navigation and reference systems and components	MEA207, MEA246	Do not take with MEA226 and MEA228
MEA234	Inspect, test and troubleshoot aircraft global navigation systems and components	MEA206, MEA207 MEA246	Do not take with MEA226 and MEA229
MEA261	Use electronic test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109	Elective
MEA262	Modify/repair single layer printed circuit boards	MEA260, MEA261	Do not take with MEA263
MEA263	Modify/repair multi-layer printed circuit boards	MEA260, MEA261	Do not take with MEA262

Unit code	Unit title	Prerequisites	Unit selection guidelines
MEA266	Terminate and repair aircraft optical fibre cable		Elective
MEA278	Inspect, test and troubleshoot instrument display systems and components	MEA207, MEA246	Do not take with MEA226, MEA228
MEA279	Inspect, test and troubleshoot full authority digital engine control systems	MEA207, MEA246	Do not take with MEA230
MEA280	Inspect, test and troubleshoot flight management systems and components	MEA207, MEA246	Elective
MEA301	Perform aircraft flight servicing	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109	Elective
AVIF3016A	Marshal aircraft		Elective

Group B (Component Maintenance Workshop Stream)

- Choose at least **three (3)** of the Avionic technical stream units listed below while observing the unit selection guidelines in column 4.

Unit code	Unit title	Prerequisites	Unit selection guidelines
MEA252	Test, align and troubleshoot synchro and servo system components	MEA201, MEA260 MEA261	Elective
MEA262	Modify/repair single layer printed circuit boards	MEA260, MEA261	Do not take with MEA263
MEA263	Modify/repair multi-layer printed circuit boards	MEA260, MEA261	Do not take with MEA262
MEA266	Terminate and repair aircraft optical fibre cable		Elective
MEA282	Repair or overhaul aircraft pulse system components	MEA260, MEA261	Elective

Unit code	Unit title	Prerequisites	Unit selection guidelines
MEA283	Repair or overhaul aircraft display, control and distribution system components	MEA260, MEA261	Elective
MEA284	Repair or overhaul aircraft instrument system components	MEA260, MEA261	Elective
MEA285	Repair or overhaul aircraft radio frequency communication and navigation system components	MEA260, MEA261	Elective
MEA286	Repair or overhaul aircraft electrical/electro-mechanical components	MEA201, MEA260	Elective
MEA287	Repair or overhaul aircraft oxygen system components	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109	Elective
MEA288	Repair or overhaul aircraft audio and visual systems and reproducers	MEA260, MEA261	Elective

Qualification Mapping Information

Release 2 - Correction of error to unit title MEA213 Inspect, test and troubleshoot advanced aircraft instrument systems and components. Equivalent.

Supersedes and is equivalent to MEA40611 Certificate IV in Aeroskills (Avionics)

Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>