



## CASA's Part 66 Proposal Comments 10-23

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CASA's proposal for a modularised training/qualification licence system offering more licence exclusions, will add additional costs, instead of fixing the root cause of the partially adopted EASR Part 66 aircraft maintenance engineer training system is expected. Increase costs.

Currently, there is confusion whether there is the EASR *Subject Module based system* or a *Competency based system*. The MoS has both, they need to be melded.

### Root Cause

The root cause is that the Part 66 MoS does not include a "Module Appendix" that specifies the competency units applicable to each module for each category and sub-category licence.

1. This affects the depth of the competency unit that needs to be taught for each category or sub-category.
2. The current '17 Modules Table' V 'Appendix IV Required Competencies' are not compatible.

Which way is CASA's choice? The Modules or Required Competency Units pathways?

If the MoS Appendix IV is the basic direction, then delete the Module system. If the Module Table is the basic direction, then a new competency Appendix is required.

### Amend the MoS to be Compatible

CASR Part 66 MoS Appendix IV. Competency units required per category and sub-category licence and the MoS training Module table are not compatible and never have been. It is why the VET system has not been able to develop a trade-based training system for other than the large aeroplane sector.

Part 66 introduced 17 training subject modules that have correlation with other regulatory requirements for aircraft maintenance personnel training.

- *Where is the correlation between the subject modules, 1 through to 17, and the competency units listed in Appendix IV?*
- *Which competency units are needed for each module so real VET Part 66 module training courses can be introduced?*
- *Where is the Appendix that lists the competency units required per module for each licence category and sub-category?*

Appendix IV may tell you where each competency unit applies but not which module. There is no table that lists which competency unit applies to which module for each category or subcategory licence for the A, B or C licences.

## Proposed Solution

Replace MoS Part 66 Appendix IV with new Appendix to list the competency units applicable to each Module, 1 - 17, as applicable to each category and sub-category licence within each Module; or

Replace the MoS Appendix IV with the syllabi for each category and sub-category licence and leave it to DEWR to provide the competency units for each licence category and sub-category modules. Training pathway.

This will enable the VET system to offer CBT courses applicable to CASA modular training requirements. The Modules Competency units will require VET review.

Providing this proposed new Appendix approach would reduce costs, implement a modular training system that would enable participants to obtain VET module-based qualifications that meet CASA's Part 66 module-based qualification system.

## Summary

When CASRs Parts 66/147 was first made, it included the large aeroplane training competency units from the previous system even though industry had many issues with that system.

To implement the EASA Modules system, without aligning aviation industry aircraft maintenance personnel competency units with the modules, as they apply to each of the aircraft maintenance engineer's licence category or each sub-category, has contributed to the critical shortage of aircraft maintenance personnel.

Until CASA produces a Part 66 MoS Appendix based on Part 66 training modules, stating the applicable competency units or syllabi that apply to each module applicable to each licence category or sub-category, training will not be supporting the CASR Part 66 aircraft maintenance engineer licences.

<b>Part 66 MoS Appendix IV - not listed per Module</b>										
Competency Units Required	Title	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
MEA107	Interpret and use aviation maintenance industry manuals and specifications	X	X	X	X	X	X	X	X	
MEA111	Perform administrative processes to prepare for certification of civil aircraft maintenance					X	X	X		X
MEA112	Plan and implement civil aircraft maintenance activities					X	X	X	X	X
MEA113	Plan and implement civil aircraft maintenance activities					X	X	X	X	X
MEA116	Apply work health and safety procedures at supervisor level in aviation maintenance					X	X	X	X	X
MEA117	Apply self in the aviation maintenance environment	X	X	X	X					
MEA118	Conduct self in the aviation maintenance environment					X	X	X	X	X
MEA119	Perform administrative processes to prepare for certification of civil aircraft A level line maintenance	X	X	X	X					
MEA142	Manage self in the aviation maintenance environment					X	X	X	X	X
MEA148	Apply mathematics and physics in aviation maintenance					X	X	X	X	X

## Part 66 MoS Appendix IV - not listed per Module

Competency Units Required	Title	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
MEA154	Apply work health and safety practices in aviation maintenance	X	X	X	X	X	X	X	X	X
MEA155	Plan and organise aviation maintenance work activities	X	X	X	X	X	X	X	X	X
MEA156	Apply quality standards during aviation maintenance activities	X	X	X	X	X	X	X	X	X
MEA157	Complete aviation maintenance industry documentation	X	X	X	X	X	X	X	X	X
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	X	X	X	X	X	X	X	X	X
MEA201	Remove and install miscellaneous aircraft electrical hardware/ components					X	X	X	X	X
MEA203	Remove and install advanced aircraft electrical system components					X	X	X	X	X
MEA206	Remove and install aircraft basic radio communication and navigation system components									X
MEA208	Remove and install pressurisation control system components					X	X			
MEA209	Remove and install oxygen systems and components					X	X			
MEA219	Inspect, test and troubleshoot aircraft pressurisation control systems and components					X	X			
MEA222	Inspect, test and troubleshoot aircraft oxygen systems and components					X	X			
MEA223	Inspect aircraft electrical systems and components					X	X or MEA 294	X or MEA 294	X or MEA 294	X or MEA 294
MEA224	Inspect aircraft instrument systems and components									X
MEA225	Inspect fixed wing aircraft automatic flight control systems and components									X
MEA226	Inspect aircraft electronic systems and components									X
MEA227	Test and troubleshoot aircraft electrical systems and components					X	X or MEA 294	X or MEA 294	X or MEA 294	X
MEA228	Test and troubleshoot aircraft instrument systems and components									X
MEA229	Test and troubleshoot aircraft radio frequency navigation and communications systems and components									X
MEA230	Test and troubleshoot fixed wing aircraft automatic flight control systems and components									X or MEA 231
MEA231	Inspect, test and troubleshoot rotary-wing aircraft automatic flight control systems and components									X or MEA 230
MEA232	Test and troubleshoot aircraft pulse systems and components									X
MEA235	Perform advanced troubleshooting in aircraft avionic maintenance									X
MEA241	Perform aircraft weight and balance calculations as a result of modifications									X

## Part 66 MoS Appendix IV - not listed per Module

Competency Units Required	Title	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
MEA246	Fabricate and/or repair aircraft electrical hardware or parts					X	X	X	X	X
MEA264	Remove and install aircraft electrical/ avionic components during line maintenance	X	X	X	X					
MEA265	Remove and install general aircraft electrical hardware	X	X	X	X					
MEA292	Remove and install advanced aircraft instrument system components									X
MEA293	Remove and install aircraft electronic system components									X
MEA294	Inspect, test and troubleshoot advanced aircraft electrical systems and components						X or MEA 223 and 227	X or MEA 223 and 227	X or MEA 223 and 227	
MEA295	Use electrical test equipment to perform basic electrical tests on aircraft and components	X	X	X	X					
MEA296	Use electrical test equipment in aviation maintenance activities					X	X	X	X	X
MEA301	Perform aircraft flight servicing					X	X	X	X	X
MEA303	Remove and install aircraft pneumatic system components					X	X	X	X	
MEA304	Remove and install non-pressurised aircraft structural and non-structural components							X or MEA 317	X or MEA 317	
MEA305	Remove and install aircraft fixed wing flight control system components					X	X			
MEA306	Remove and install engines and engine system components					X	X	X	X	
MEA307	Remove and install propeller systems and components					P	X			
MEA308	Remove and install rotary wing rotor and flight control system components							X	X	
MEA309	Inspect, test and troubleshoot aircraft hydromechanical and landing gear systems and components						X	X	X	
MEA310	Inspect, test and troubleshoot aircraft pneumatic systems and components						X	X	X	
MEA312	Inspect, test and troubleshoot aircraft fixed-wing flight control systems and components						X			
MEA313	Inspect, test and troubleshoot piston engine systems and components						X		X	
MEA315	Inspect, test and troubleshoot propeller systems and components					P	X			
MEA316	Inspect, test and troubleshoot rotary-wing rotor and control systems and components							X	X	
MEA317	Remove and install pressurised aircraft structural and non-structural components					X	X			
MEA318	Inspect aircraft hydromechanical, mechanical, gaseous and landing gear systems and components.					X				
MEA319	Inspect gas turbine engine systems and components					X		X		
MEA320	Test and troubleshoot aircraft hydro-mechanical, gaseous and landing gear systems and components					X				

## Part 66 MoS Appendix IV - not listed per Module

Competency Units Required	Title	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
MEA321	Test and troubleshoot aircraft fixed wing flight control systems and components					X				
MEA322	Test and troubleshoot gas turbine engine systems and components					X		X		
MEA323	Perform advanced troubleshooting in aircraft mechanical maintenance					X	X	X	X	
MEA325	Weigh aircraft and perform aircraft weight and balance calculations as a result of modifications					X	X	X	X	
MEA328	Maintain and/or repair aircraft mechanical components or parts					X	X	X	X	
MEA339	Inspect, repair and maintain aircraft structures					X	X	X	X	
MEA343	Remove and install avionics system components					X	X	X	X	
MEA344	Remove and install aircraft components	X	X	X	X					
MEA345	Perform scheduled line maintenance activities on gas turbine engine fixed wing aircraft	X								
MEA346	Perform scheduled line maintenance activities on gas turbine engine rotary-wing aircraft			X						
MEA347	Perform scheduled line maintenance activities on piston engine fixed wing aircraft		X							
MEA348	Perform scheduled line maintenance activities on piston engine rotary-wing aircraft				X					
MEA357	Inspect, test and repair aircraft fabric surfaces					Z	Z			
MEA358	Re-cover aircraft fabric surfaces					Z	Z			
MEA359	Inspect and repair aircraft wooden structures						W			
MEA362	Maintain aircraft vapour cycle air-conditioning systems						X		X	
MEA365	Assess structural repair/modification requirements and evaluate structural repairs and modifications					X	X	X	X	
MEA398	Remove and install aircraft hydro-mechanical and landing gear system components					X	X	X	X	
MEA418	Perform basic repair of aircraft internal fittings during line maintenance	X	X	X	X					
MSA ENV272B	Participate in environmentally sustainable work practices	X	X	X	X					
MSA ENV472B	Implement and monitor environmentally sustainable work practices					X	X	X	X	X

The above does not align with the CASR Part 66 Modules listed below.

So, aircraft maintenance engineer Module credits can apply in the VET system, each CASA module will need to contain the competency units applicable to each licence category or sub-category. Example

<b>Module 1, Mathematics</b>	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2	C
Competency Units	?	?	?	?	?	?	?	?	?	?
<b>Module 2 Physics</b>	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2	C
Competency Units	?	?	?	?	?	?	?	?	?	?
<b>Module 3. Electrical fundamentals</b>	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2	C
Competency Units	?	?	?	?	?	?	?	?	?	?

The alternative is to list the course syllabi for each licence category and sub-category instead of competency units.

This would make DEWR responsible for providing the competency units for each module for each category and sub-category licence.

<b>Part 66 Modules Table - Where are the competency units required?</b>					
Subject modules	A or B1 aeroplane with:		A or B1 helicopter with:		B2
	Turbine engine(s)	Piston engine(s)	Turbine engine(s)	Piston engine(s)	Avionics
1 Mathematics	X	X	X	X	X
2 Physics	X	X	X	X	X
3 Electrical fundamentals	X	X	X	X	X
4 Electronic fundamentals	X	X	X	X	X
5 Digital techniques electronic instrument systems	X	X	X	X	X
6 Materials and hardware	X	X	X	X	X
7 Maintenance practices	X	X	X	X	X
8 Basic aerodynamics	X	X	X	X	X
9 Human factors	X	X	X	X	X
10 Aviation legislation	X	X	X	X	X
11A Turbine aeroplane aerodynamics, structures and systems	X				
11B Piston aeroplane aerodynamics, structures and systems		X			
12 Helicopter aerodynamics, structures and systems			X	X	
13 Aircraft aerodynamics, structures and systems					X
14 Propulsion					X
15 Gas turbine engine	X		X		
16 Piston engine		X		X	
17 Propeller	X	X			