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**When – CASA Foreign ‘fast – track’ LAME Procedure**

The shortage of maintenance personnel exists because the government training/licencing process is not producing qualified licence maintenance personnel in the small aeroplane and helicopter sectors that cover just about all emergency operations in Australia.

Nearly 30 AMOs met with the CEO of CASA on the 6<sup>th</sup> January 2024 to impress the urgency to implement a fast-track recognition of foreign LAMEs because there is no training courses in Australia for these LAMEs.

- CASA continual feedback: “it is under review”.
- New Zealand has a more professional approach than Australia.

Australia is probably 2 years away from obtaining CASA standards based NVET basic small aeroplane and helicopter training pathways to be specified in the Education’s Training [Companion Volume](#).

The individual training pathways, based on CASA Part 66 standards, are listed in AMROBA’s [Training News](#) section on the website. In addition, the separate training pathways based on [CASA modules 11A \(large aeroplanes\)](#), [11B \(small aeroplanes\)](#) and [12 \(helicopter\)](#) are also listed.

We have also listed a [training pathway for the EASR P66 B2L + System](#) ratings modular training.

If CASA would endorse their own Part 66 modular approach, then there would not be additional exemptions.

General aviation wanted the [EASR Part 66 B3](#) during the initial consultation but were ignored, why adopt a licencing system but not keep harmonised with EASA Part 66 amendment to correct faults in the regulation.

A [list of the B2L and B3, based on EASR Part 66 standards](#) are also available on the website.

For instance, a FAA approved maintenance and repair organisation, MRO, doesn't need a foreign LAME to initially have an A&P. A foreign LAME can go through the certificate holder's approved training course and is issued a repairman certificate that allows you to do whatever the certificate holder authorises you to do.

This flexibility does not exist in Australia’s aviation regulatory requirements for all AMOs.

**CAA(NZ) foreign AME licence recognition**

*“We will recognise your foreign AME licence, if it’s current and issued by an ICAO member state.*

*We will then issue a New Zealand aircraft maintenance engineer licence (AMEL) if:*

- *we have confidence in, and understands, the issuing state's AMEL system. That includes meeting ICAO Annex 1 requirements;*
- *the issuing state verifies the authenticity and validity of your licence. CAA UK licence holders need to apply directly to the CAA UK, on its form SRG1160, giving your permission for it to release details to us;*
- *you have an [address for service](#) in New Zealand;*
- *you pass written and oral exams in air law, and in human factors. Other passes may be needed, depending on what you passed to get your foreign licence. For instance, CASA licence holders need to pass only the written exam in air law – see [Trans-Tasman Mutual Recognition Act \(TTMRA\)](#).”*

**Annex 1.4.2 Aircraft maintenance (technician/engineer/mechanic) trade/licence global descriptors**

- **AMT** FAA licence **Aircraft Maintenance Technicians;**
- **LAE** EASA licence **Aircraft ‘Maintenance’ Engineers;**
- **AME** TCA licence **Aircraft Maintenance Engineers;**
- **LAM** ANAC licence **Aircraft Maintenance Mechanics;**
- **LAME** CASA Licence **Aircraft Maintenance Engineers.**

***Australia – New Zealand Special Conditions Proposal***

AMROBA recommends that CASA and CAA(NZ) resurrect what they were negotiating in the early 1990s, as a part of this development of fast-tracking foreign LAMEs. That is, CASA re-open negotiations with CAA(NZ) so Australian or New Zealand registered aircraft maintenance can be carried out in either country and be certified by each country’s AMO/LAME when the aircraft is in the other country. This would provide freer operations for other than commercial air transport operations.

This should be similar to the [FAA- TCCA Maintenance Implementation Procedures \(MIP\)](#).

## Changes are needed to attract Gen Z Apprentices

Gen Z is currently the largest sector of the population from where apprentices are sought. What we have not done is realise who Gen Z are and that they will not be permanent as they will have multiple jobs in their lifetime. The challenge to the maintenance sector is to provide a number of pathways to keep Gen Z in the aviation maintenance sector. To achieve this employers, trade training and licencing need a Gen Z approach.

CAE's [\*Helicopter Training Division President\*](#): "Aviation is one of the industries where the adoption of emerging technologies is accelerating. Virtual Reality, especially when it comes to aircraft technician training, is proving to be a high value solution. One of the main reasons VR is used in maintenance training is to lower the risks associated with traditional training methods.

*This emphasizes the need for new training methods that speed up learning and appeal to the younger generation of aircraft maintenance technicians. In this context, the emergence of XR technology offers an innovative and highly efficient industry solution for ensuring competency, readiness, and sufficient global growth of the aircraft maintenance workforce."*

This industry has had problems attracting apprentices for a number of years and our research identifies that we need to change our presentation of maintenance jobs and training, formal and on the job. This is a challenge that employers, training developers and regulators have to meet.

### Education Research Papers highlight the Issues.

*"Gen Z are multi-modal learners, meaning they don't want to sit in a classroom passively listening – they want to be out there 'doing'.*

*In this sense, apprenticeships offer a clear advantage. Many university degrees rely heavily on academic learning with practical application only beginning in the later stages. Apprenticeships, on the other hand, offer on-the-job learning (and earning!) from the outset. [Ed: A point to push]*

***It's the traditional Master/Apprentice model that will need to adapt.** Traditionally, in the first twelve months an apprentice is given unskilled labour tasks, like sweeping the shop floor. Gen Z are different – they are tech-savvy, entrepreneurial in nature, and have little patience for repetitive tasks, so need to be engaged on a different level.*

*Expecting long-term loyalty from an apprentice is also a thing of the past. Gen Z will have five careers and seventeen jobs in their lifetimes. In Australia, under 25's keep the same job for an average of 20 months, compared to 80 months for the 45+ age group. This high job mobility is a defining factor of the emerging generations and businesses need to come to terms with it.*

*We're experiencing something unique in our labour market – we have four generations currently in the workforce, and it's not uncommon to see a Baby Boomer managing a Gen Z employee. Gen Z want to be led by collaborative leaders, who bring them into decisions and give them opportunities to contribute beyond the confines of their role and experience. Conversely, baby boomers are typically 'directive' leaders who prefer to set firm guidelines and stay in their own lanes.*

*Gen Z apprentices will want to work on projects that have real outcomes, not just sweep the shop floor. They'll want to know why things are being done in a certain way – and "because that's how we do it" isn't what they want to hear. In fact, this answer can be a red rag to a bull!*

*Being so entrenched in the digital world, Gen Z bring a wealth of knowledge about technology, social media and other digital platforms and are incredibly innovative in their approach. Savvy businesses who can embrace what they bring, rather than being stuck in the mindset of 'we've always done it this way'.*

*The high job mobility of Gen Z presents a number of challenges for our education sector – a key one being that learning needs to be continual and flexible.*

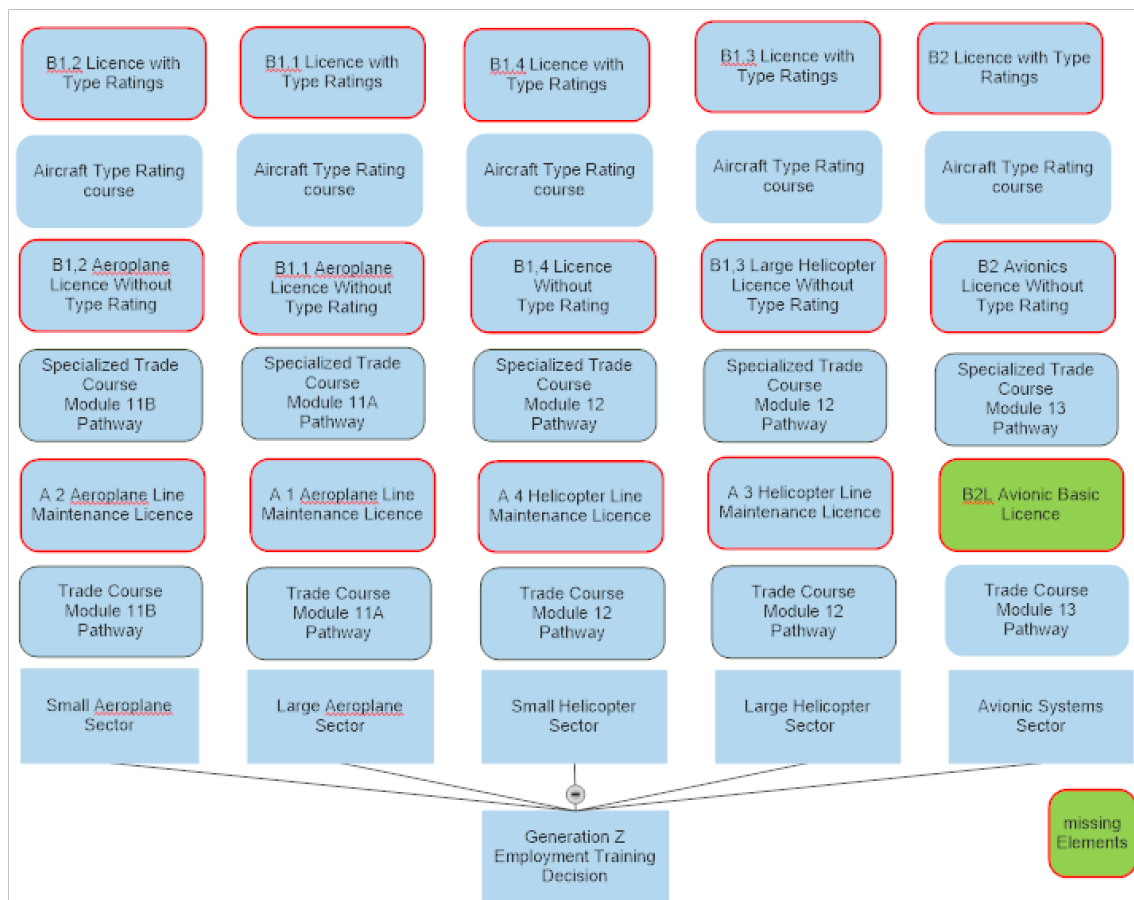
*The VET sector is being challenged to adapt to a more flexible, digital learning model. Gen Z will respond to this shorter, sharper needs-based learning model, that leverages digital platforms, gamification and virtual reality.*

*The competency-based nature of VET means the sector is well-placed to respond as long as there is the support of industry regulators. It's no secret that the rigid assessment framework and long consultation period required to make changes to courses is not future-proof, and this is nowhere more evident than when it comes to meeting the learning needs of Generation Z.*

*But, if employers, the sector and regulators can collaborate to evolve, apprenticeships can offer the right mix of practical application and study along with the ability to earn while employers learn to attract Generation Z, and quite possibly, stave off skill shortages in the process."*

The first change is providing all these training pathways in the NVET system with numerous supporting AQF qualifications supporting variable pathways in the aircraft maintenance industry.

**Major hurdle** CASA must recognise AQF qualification pathways as they are what Gen Z use.



**Is this acceptable to attract Gen Z?** These are pathways based on the current Part 66 except the line maintenance training pathway is not currently part of the full trade training pathways. Neither is there a “**Basic Avionics system licence**” like what exists in the EASA system.

So how does the VET sector adapt to a more flexible, digital learning model and how would CASA accept a new digital learning model?

### What is the New Apprenticeship Model?

*“The new model has gone from training that is generic to training that relates specifically to the employer’s needs. The new model requires ongoing and highly efficient communication and negotiation between the trainer and employer to support the apprentice.”*

### Digital Enhancement of Apprenticeship Processes.

*“Digital methods help a lot with that new process. That in turn means that leaders and managers must be ready to change the way their organisation operates and supports their staff in using digital if they are to optimise their effectiveness. This might mean setting up iPads or using a designated member of staff to brainstorm ideas and assist with setting up the use of digital in different areas.”*

The challenge to return aviation maintenance course popularity.

[NSW top 20 career training courses](#) do not include any aviation maintenance personnel courses.

Basically, the same result can be found in all States.

The question is, will regulators, training developers and employers comprehend the required changes.

### What is changing from 1 July 2024?

The changes starting in July are focussed on improving the apprenticeship experience for apprentices and employers, so both are better supported to finish the apprenticeship.

### Tailored support for apprentices and employers

From 1 July there will be targeted support available for those who need it from before sign-up until the end of the apprenticeship. Etc. etc.

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## Possible AME – LAME Career Pathways

At this time, aviation maintenance is not looked at by Gen Z as being an attractive career pathway. The reason is simple, too complicated, too costly and pathways are not clearly defined in the VET system. To attract Gen Z we need to provide AQF qualifications pathways.

CASR Part 66 modules can be used to support variable pathways with bridging courses to move between the pathways.

### Basic Gen Z continual learning pathways?

- 1) Large aeroplane (Part 25 and complex aeroplanes)
  - a. a. Basic trade
  - b. b. A1 licence
  - c. Specialised trade
  - d. **B1.1 (Module 11A)**
- 2) Small Aeroplane (Part 23, non-complex aeroplanes)
  - a. Basic Trade
  - b. A2 licence
  - c. Specialised trade
  - d. **B1.2 (Module 11B)**
- 3) Large Helicopters (Part 29 complex helicopters)
  - a. Basic trade
  - b. A3 licence
  - c. Specialised trade
  - d. **B1.3 (Module 12)**
- 4) Small helicopters (Part 27 non-complex helicopters)
  - a. Basic trade
  - b. A4 licence
  - c. Specialised trade
  - d. **B1.4 (Module 12)**
- 5) Avionics Systems
  - a. Basic trade
  - b. **B2L**
  - c. **B2L system ratings**
  - d. Specialised trade
  - e. **B2 (Module 13)**

Formal courses in line with Part 66 self-study training.

**Attracting Gen Z** - Because it is currently all the way to full licence in the avionics field, the case for adopting **EASR Part 66 B2L** urgently is paramount to attracting Gen Z apprentices.



The **Manufacturing Industry Skills Alliance (MISA)** has been funded by government for the “*Aviation Maintenance Skills Pathways Project*” focused mainly on the General Aviation Sector.

AMROBA, a member of MISA’s Aviation Working Group overseeing this project, will bring this Gen Z issue to their notice. MISA have a list of AMOs and RTOs/MTOs they will be contacting soon to find out what changes are needed to meet their AMO needs and meeting licencing requirements.

Needs course developers, regulators, employers and unions to support AQF outcomes so we can attract the Gen Z section of the available workforce back to aviation.

40 years & still no individual pathways to sector trade & Part 66 B1.2, 3, 4 licences plus a B2L pathway.

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Possible VET Training Pathways - ASQA Endorsed – CASA Accept?						
Pre – employment details that can be provided by the Secondary School Curriculum or TAFE training college if student opts for aviation career						
CASR Part 66 Module 1 Mathematics			CASR Part 66 Module 2 Physics			
<b>Post employment or Full time Training.</b>						
Note: The CASR Part 66 modules are taught at different depths for avionics and mechanical						
<b>Mechanical Stream</b>				<b>Avionics Stream</b>		
Modules 3 – Electrical Fundamentals				Modules 3 – Electrical Fundamentals		
Module 4 – Electronic Fundamentals				Module 4 – Electronic Fundamentals		
Module 5 – Electronic Instruments				Module 5 – Electronic Instruments		
Module 6 – Materials and Hardware				Module 6 – Materials and Hardware		
Module 7 – Maintenance Practices				Module 7 – Maintenance Practices		
<b>AQF II- General Trade Level</b>						
This level also has additional maintenance training provided by employer to obtain a CASA 'A' licence.						
<b>A1</b> Air Transport Aeroplanes	<b>A2</b> Small Aeroplanes	<b>A3</b> Large Helicopter	<b>A4</b> Small Helicopters			
<b>Transition AQF II to AQF III</b>						
This level meets full avionics and mechanical specialised trade levels also supporting licencing						
Module 8 – Basic Aerodynamics				Module 8 – Basic Aerodynamics		
Module 9 – Human Factors				Module 9 – Human Factors		
<b>AQF III</b> AME Mechanical Tradesperson				<b>AQF III</b> AME Avionics Tradesperson		
<b>Transition AQF III to AQF IV</b>						
This level adds specialised trade streams supporting the kinds of aircraft						
<b>Module 11A</b> Aeroplane High Speed High Altitude	<b>Module 11B</b> Aeroplane Low Speed Low Altitude	<b>Module 12</b> Helicopters	<b>Module 12</b> Helicopters	<b>Module 13</b> Avionics	<b>Module 13</b> Basic Systems <b>Module 13</b> 7 System Electives	<b>Module 11C</b> Aeroplane <2000Kg
<b>Module 15</b> Gas Turbine Engine	<b>Module 16</b> Piston Engine	<b>Module 15</b> Gas Turbine Engine	<b>Module 16</b> Piston Engine	<b>Module 14</b> Propulsion (Avionics)		<b>Module 16</b> Piston Engine
<b>Module 17</b> Propellers (Elective)	<b>Module 17</b> Propellers (Elective)	<b>Module 17</b> Propellers (Elective)	<b>Module 17</b> Propellers (Elective)			<b>Module 17</b> Propellers
<b>Module 16</b> Piston Engine (elective)	<b>Module 15</b> Gas Turbine Engine (elective)	<b>Module 16</b> Piston Engine (elective)	<b>Module 15</b> Gas Turbine Engine (elective)			
<b>AQF-IV</b> Large Aeroplane Tradespersons	<b>AQF-IV</b> Small Aeroplane Tradesperson	<b>AQF-IV</b> Large Helicopter Tradesperson	<b>AQF-IV</b> Small Helicopter Tradesperson	<b>AQF-IV</b> Avionics	Not Yet Applicable	Not Yet Applicable
Note: these trades are supported by Structure Tradespersons specialising in aeroplane pressurised hulls, non-pressurised hulls and rotorcraft structures.						
<b>Transition AQF IV to AQF V – Part 66 Licencing</b>						
This level adds specialised licencing knowledge underpinning each Part 66 licences						
<b>Module 10</b> Aviation Legislation	<b>Module 10</b> Aviation Legislation	<b>Module 10</b> Aviation Legislation	<b>Module 10</b> Aviation Legislation	<b>Module 10</b> Aviation Legislation	Not Yet Applicable	Not Yet Applicable
<b>B1.1</b> AME Licence Part 25 Complex Aeroplanes	<b>B1.2</b> AME Licence Part 23 Aeroplanes	<b>B1.3</b> Part 29 Helicopters	<b>B1.4</b> Part 27 Helicopters	<b>B2</b> Avionic System	<b>B2L</b>	<b>B3</b>
Note: complex aircraft require manufacturer training to obtain a Licence additional rating.						