

## Where Are We Heading?

### FAR - EASR – CASR – ICAO Standards?

**ICAO Vision:** Achieve the sustainable growth of the global civil aviation system.

**CASA's Vision:** “To promote a positive and collaborative safety culture through a fair, effective and efficient aviation safety regulatory system, supporting our aviation community.”

**FAA Vision:** “We strive to reach the next level of safety, efficiency, environmental responsibility and global leadership. We are accountable to the American public and our stakeholders.”

**EASA Mission** is to promote the highest common standards of safety and environmental protection in civil aviation. [no efficiency here]

**TC(A):** A transportation system in Canada that is **recognized** worldwide as safe and secure, efficient and environmentally responsible.

**Efficient:** Of a system, **achieving maximum productivity with minimum wasted effort or expense.** (Dictionary). [yet to be achieved in aviation regulatory reform]

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**AMROBA's Objective 9: “Reducing government overheads — assist government, and CASA, in recognising and implementing processes that will reduce costs to the MRO industry. The reduction of government, and CASA costs will assist and encourage a safer internationally competitive Australian MRO industry.”**

‘Efficiency’ is in many Visions, but not evident in new aviation regulations.

## The FARs & ICAO Core – ‘Maintained Airworthy’

In FAR 91.7, “Civil aircraft airworthiness” paragraph (a) states: “No person may operate a civil aircraft unless it is in an airworthy condition.” ICAO states in Annex 6 states: “flights shall not be commenced until flight preparation forms have been completed certifying that the pilot in command is satisfied that the aeroplane/helicopter is airworthy, instruments are sufficient for the flight and the maintenance release has been issued. The language of the ICAO Annexes is written in Plain English.

Like EASA, the FAA is to the USA as ICAO is to the entire world, with a few exceptions. Both are concerned with safety and procedures, but the FAA is also tasked with the promotion of aviation interests, such as the development of new technologies and operations. Somewhat indirectly, the FAA promotes the business side of aviation, something ICAO does not do. There are other areas the FAA is concerned with that ICAO is not. EASA also is tasked differently to CASA. With that in mind, CASA functions were created in a period when industry was lobbying for more restricted functions that were implemented with changes to the Act in 1995.

Design/manufacturing interests really needs CASA to be tasked with the promotion of aviation interests, such as the development of new technologies and operations just like the FAA.

**Answer:** Amend the Civil Aviation Act.

ICAO has a ‘Standard’ in all Parts of Annex 6 that simply states that the aircraft registered operator is responsible to have the aircraft maintained in an airworthy condition. Note, ‘responsible to have’ not ‘responsible for’ the airworthy condition.

FAR Part 43 states “***if the aircraft is found to be airworthy and approved for return to service, the following or a similarly worded statement — “I certify that this aircraft has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition”.*** This is for all aircraft not under a system of maintenance and is what the A&P mechanic is trained with regards all maintenance requirements. To comply with Annex 8, the A&P mechanic can obtain an ***Inspection Authorisation*** to certify that the aircraft continues to meet its design standards for aircraft undergoing “annual inspections” and whenever major modifications and repairs are carried out. The IA is the FAA method of complying with this LAME privilege in Annex 1, Chapter 4. Whether CASA adds an IA qualification to the LAME system as the FARs have done or return to pre 1990 regulations where all our LAMEs had this ICAO privilege is yet to be decided.

**Answer:** Amend regulations to provide this LAME ICAO privilege in Part 66.

Successful nations cannot rest on their laurels. The relentless forces of globalisation means that Australia needs to continue to drive reforms aimed ***at removing any impediments to efficiency and innovation.*** Underpinning a country’s competitive success internationally is the effectiveness of its domestic regulatory structures. Good regulation can enhance Australia’s ability to compete and prosper economically; inappropriate or costly regulation will handicap our performance. (Productivity Commission)

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## Apprenticeship to Trade – Part 66 Drawbacks

*The Aviation/aerospace trade training system, before CASA/CAA changes, provided Australia with a multi-skilled avionic or mechanical tradesperson with cross category skills. Employer pressure to lower training costs in the 70/80s, in hindsight, lowered skills and restricted employment capability across the industry. In hindsight, it would have been better if we merged the avionic and mechanical streams.*

If our current apprenticeship training is not providing the skills needed by the MRO sector, then maybe it is time CASA returned to providing Basic Licence Examinations and promulgating the ICAO training standards so apprentice training can once again be funded and provided by government.

**EASA (knowledge) Examination System replaced CASA Basic (knowledge) Examination System. A step back into the past when aircraft ratings were replaced by “group” ratings by CASA’s predecessors. Result: current disaster.**

**EASA 2018 amendments to Part 66 resurrected Group Ratings.**

**Answer: Adapt EASR 2018 Parts 66/147 amendments As Soon As Possible.**

CASA has failed government and industry by not providing an Apprentice to Trade to Licence system compatible with Australia’s aviation maintenance industry needs. Unnecessary ‘new’ costs have been imposed on this industry because of partial adoption of a foreign maintenance personnel licencing system that has been amended by the EU because EASA’s own system failed their own industry, It is a system that is still being developed. That system was not compatible to the Australian aviation industry, it is based on airline operations.

It has created restrictive regulatory processes and bureaucracy that has virtually stifled the MRO industry and introduced a very costly and impracticable licencing system for Australia. Past experience

### **AMC 66.A.20(b)(2) Privileges**

*For category B1, B2, B2L, and B3 and L, for every aircraft included in the authorisation, the experience **should** be on that particular aircraft or on a similar aircraft within the same licence (sub)category. Two aircraft can be considered to be as similar when they have similar technology, construction and comparable systems, which means equally equipped with the following (as applicable to the licence category):*

- *Propulsion systems (piston, turboprop, turbofan, turboshaft, jet-engine or push propellers); and*  
*A maximum of 20% of the experience duration required may be replaced by the following relevant activities on an aircraft type of similar technology, construction and with comparable systems.*
- *In the particular case of (CAR30) Part-145 organisations, the type of maintenance i.e. base, line*

*EASA: “For category B1, B2 and B3, for every aircraft **type rating** included in the authorisation (hold or intended to be granted), the experience shall be on that particular aircraft **or on a “similar aircraft”**<sup>4</sup> within the same subcategory (i.e. B1.1, B1.2, B1.3, B1.4);”*

For the European system to work with the Australian competency-based training system, CASA has to accept the VET competency qualifications for each of the 16 trade modules under Part 66. In fact, if CASA adapted the latest revision of EASR Part66/147, Australia would have appropriate licences and ratings, close to pre 1990 ANO/CAO standards.

The EASA Group Ratings should increase to CAO 100.90 series Groups we had.

# AMROBA<sup>®</sup>inc

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ADVOCATE OF THE AVIATION MRO INDUSTRY

Subject	Australia		Europe	America
	Pre CASR-Part 66 (2007)	Post CASR Part 66	EASR Part 66 (2018)	FAR Part 65
AME Licence	Specific Aircraft Ratings	Specific Aircraft Ratings	Specific Aircraft Ratings	No Specific Aircraft Ratings
	Aircraft Group Ratings Basic Licence in One Group	(re-introduced Type Ratings replaced by Group Ratings)	Aircraft Group Ratings	No Group Ratings. – “Required type training and/or experience”
		Basic Licence < 5700 Kg	Basic Licence <2000 Kg	Basic A&P Mechanic
Licence category	Airframe, engine, electrical, instrument and radio categories	Avionic and mechanical	Avionic and mechanical	Airframe & powerplants categories (includes our electrical, instruments and radio categories)
Examinations	CASA Basic Examinations	Part 147 Training Schools	EASA/NAAs or Part 147 TSs	FAA or Part 147 TSs
Apprenticeship	Yes	Yes	Member States–Yes/EASA - No	Yes
Training Type	Competency	National Competency but Part 66 Knowledge Examinations.	Knowledge + Practical	Competency
Efficiency	Efficient	Costly	Costly	Efficient

## *Australian Education Trade Training System.*

“The National Training System is the Australian system for vocational education and training (VET) under the Australian Quality Training Framework (AQTF), in which **employers**, the **States of Australia**, and the **Commonwealth Government**, formalise a curriculum available for Registered Training Organisations (RTOs) to teach and assess the competency of students.

The **Australian Quality Training Framework** (AQTF) sets the standards for the operation of training organisations registered to deliver training services and to issue VET qualifications. Training products include national training packages and accredited courses which outline the qualifications, competencies and assessment criteria for specific areas of training. These two dimensions form the National Skills Framework.”

**In reality, employers and States of Australia have virtually no input if the Commonwealth Government implemented the national curriculum specified in Civil Aviation Safety Regulation Part 66.**

***EASA Part 66 Group Ratings (2018) (not yet multi-engine groups that should be included)***

Most LAMEs holding these Type Ratings could have their licence re-issued with Group Ratings **expanded to meet original Groups**.

CASA needs to adopt EASR Part 66, 2019 version, and associated AMC/GM, as soon as practical so that Group Ratings can be re-introduced.

This amendment of EASR Part 66 demonstrates the failure of CASA during the initial partial adoption of EASR Parts 66/147.

**Why is CASA loathe to adopt, not adapt, the full A and B provisions of EASR Parts 66/147?**

Add the ICAO LAME Privileges and we return to pre-1990 LAME privileges.

That additional privilege is the same privilege exercised by the FAA “Inspection Authorisation” being proposed by CASA for GA.

Maybe we could just resurrect the pre-1990 ICAO LAME.

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<u>Group 2 aircraft:</u>	(For B1.1, B1.3, B1.4)	(For B2)	
Subgroups:	<b>Individual TYPE RATING</b> (type training + OJT) or (type examination + practical experience)	<b>Individual TYPE RATING</b> (type training + OJT) or (type examination + practical experience)	<b>Individual TYPE RATING</b> type training or type examination
2a: single turboprop aeroplanes (*)	<b>Full SUBGROUP RATING</b> (type training + OJT) or (type examination + practical experience) on at least 3 aircraft representative of that subgroup	<b>(For B2 and B2L)</b>  <b>Full SUBGROUP RATING</b> based on demonstration of practical experience	<b>Full SUBGROUP RATING</b> type training or type examination on at least 3 aircraft representative of that subgroup
2b: single turbine engine helicopters (*)	<b>Manufacturer SUBGROUP RATING</b> (type training + OJT) or (type examination + practical experience) on at least 2 aircraft representative of that manufacturer subgroup	<b>Manufacturer SUBGROUP RATING</b> based on demonstration of practical experience	<b>Manufacturer SUBGROUP RATING</b> type training or type examination on at least 2 aircraft representative of that manufacturer subgroup
2c: single piston engine helicopters (*)	(*) Except those classified in Group 1.		



## Part 66 Alternative – FAR Part 65 (too late?)

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There is no doubt we had a better LAME licence and ratings before it was repealed.

**So, what advantages does the A&P mechanic/technician and the Inspection Authorisation have for non-airline businesses over the current CASR Part 66/147 licence/rating system?**

**Should we divide the industry into EASA LAME for major airlines and FAA A&P/IA mechanic for the rest of aviation? What would be the result?**

1. Firstly, it would raise basic training requirements and lower on-going costs. The FAA is an adult training/experience system that would not require CASA to approve licence ratings. The A&P mechanic/technician and his/her employer are responsible to attend training and hold experience to support the work he/she is performing.
2. Secondly this would remove the impact of the CASR Part 66 on the VET system and enable the VET to expand its avionic & mechanical trade training streams to meet the *Airframe & Powerplant* mechanics and *Avionic Technicians*.

**Quote: *Airframe and Powerplant (A&P) mechanics*** are certified generalist mechanics who can independently perform many maintenance and alteration tasks on aircraft. A&P mechanics repair and maintain most parts of an aircraft, including the engines, landing gear, brakes, and air conditioning systems. Some specialized activities require additional experience and certification.

***Avionics technicians*** are specialists who repair and maintain a plane's electronic instruments, such as radio communications, radar systems, and navigation aids. As the use of digital technology increases, more time is spent maintaining computer systems. The ability to repair and maintain many avionics and flight instrument systems is granted through the Airframe rating, but other licenses or certifications may be needed.”

***Repairmen*** certificate holders may or may not have the A&P or other certificates. Repairmen certificates are issued by certified repair stations to aviation maintenance personnel and the certificates allow them to do very specific duties. Repairmen certificates are valid only while the mechanic works at the issuing repair center and are not transferable to other employers.

Most aircraft and avionics equipment mechanics and technicians learn their trade at a FAA-approved Aviation Maintenance Technician School. Others enter with a high school education or equivalent and are trained on the job. Some workers enter the occupation after getting training in the military. Aircraft mechanics and avionics technicians are typically certified by the FAA. See the [Title 14 of the Code of Federal Regulations \(14 CFR\) part 65, subpart D and E](#), for the most current requirements for becoming a certified mechanic.

To keep their certification, mechanics must have completed relevant repair or maintenance work within the previous 24 months. To fulfill this requirement, mechanics may take classes from their employer, a school, or an aircraft manufacturer. Unquote

This is the most cost-effective LAME system available from the major regulatory systems.

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