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Why are General Aviation and Aerialwork Sectors Over Regulated?

Whether it is pilots or engineering personnel, the general opinion in these sectors is there is too much red tape, regulatory administrative costs and over complex regulatory requirements.

In other words, it has been over regulated and administratively added red tape and costs that is putting organisations out of business.

As the CARs are replaced by CASRs, the consequence has been more red tape, costs and regulations.

Under this ever-increasing regulatory burden, the result is a shortage of engineering personnel and pilots.

Government departments and agencies developing new regulations and standards have not yet accepted that the consequence of their developed regulatory system is the shortage of engineering personnel and pilots.

Australian aircraft maintenance tradespersons were once respected and accepted worldwide; today aviation trades and apprentices aren't even recognised in the aviation system.

- CASR Part 147 approvals closed RTOs that were providing proper apprentice training (avionics & mechanical practical skill & knowledge)
- CASR Part 147 does not include the EASR practical training elements either.

CASR part 66 licencing system simply does not work in GA or the Helicopter sectors because Australia's system is past history in the EASA system – failed in Europe, failed in Australia. EASA system has had major changes to make it work, CASR 66/147 has not adopted those changes.

- The results of regulatory change obviously have not worked.
- The problem is government and CASA won't admit their system has failed.
- There is no cohesion between CASA and ASQA – licencing & training authorities.

What we have is the 'consequence' of the regulatory system and can only be fixed by changing regulations.

CASA is not responsible for airport charges, that is a regulatory responsibility of the Department.

Attracting and Retaining Apprentices

There are many theories why this civil aviation industry is not attracting apprentices and retaining them.

In recent days, I have been informed by members that some partially trained apprentices/young AMEs/ some LAMEs, ex CAR31 converted to Part 66, have left the maintenance sector. As explained, when they turned their thoughts to becoming licenced, or adding a licence, by reviewing the CASA website, they concluded that the CASR Part 66 licence system is too complicated. A look at the website confirms their decisions.

> ***A licencing system not compatible with the non-airline industry and no longer based on National Vocational Education Training (NVET) standards & qualifications, a system that still does not have NVET training packages for piston aeroplanes or helicopters. In addition, a single avionics licence that consumed a multi group system that was designed to meet Australian conditions.***

- **The CASA licencing system is a main hurdle that is holding back these sectors of maintenance.**

Australian Apprenticeships are available for anyone of working age. You don't need any other qualifications to start. If you're re-entering the workforce, or you just want to career change, try an apprenticeship. It's a great way find the career you always wanted. Australian Apprenticeships combine time at work with training. They can be full-time or part-time to suit your needs. They are available in more than 500 occupations around Australia. **The apprentice undertakes (1) structured learning and (2) paid employment to achieve a (3) relevant qualification.**

- Vocational education and training — 'VET' — is a pillar of Australia's life-long education system.

However, even the VET system has not kept pace with these sectors' employer needs.

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Regulatory Changes to Attain Cohesion with VET Qualifications.

The now redundant version of EASR Part 66 that CASA copied didn't work in Europe either.

To make it work they added "Groups" and training (practical and knowledge) was specified in detail.

This enabled all member States to adjust the State's Education system to align with the licencing pathways. Education qualifications supporting each of the licencing pathways, including a B3 licence and modular avionic licence pathways. Australia is being held in the past to a regulatory system that no longer exists.

Cohesion has not happened in Australia.

Look at the CAR system that once supported what the B1and B2 licencing system replaced, a system that was slowly developed over many years. Industry had training and licencing pathways that attracted and retained AME/LAMEs in aviation.

ANTA and Department/CAA worked together to enable the provision of TAFE provided courses applicable to the licencing pathways. Trade qualifications met trade standards; licencing was at the stage of dropping CAA examinations because of the education move State accreditation of trades to National accreditation.

Note, in these sectors, most Group 1 Airframes LAMEs held Group 1 Engines and Group 1 Electrical.

Trade training provided the apprentice/tradesperson with the skills and knowledge to pass CASA examinations to obtain a basic licence and add ratings as additional examinations and experience was reached.

The CAR 31 Group Rating System was business achievable:

B1.1 *Group 20 type rated Aeroplanes*

B1.2

- *Group 1 Aeroplane Airframes Systems not in Groups 2 to 20*
- *Group 3 Wooden structures (now an elective)*
- *Group 4 Fabric Coverings (now an elective)*
- *Group 5 Power Driven Fluid Systems other than Group 2, 19 or20.*
- *Group 6 Air-conditioning systems*
- *Group 7 Composite Aircraft*
- *Group 10 Pressurisation*
- *Group 1 piston engines in aeroplanes and airships except Group 3 & 21*
- *Group 3 engines supercharging systems*

B1.3 *Group 21 type rated helicopters*

- *Group 19 Helicopter Airframe Systems with power assist flight controls not Group 20.*

B1.4

- *Group 2 Helicopter Airframe Systems (no power assist flight controls)*
- *Group 2 Piston engine in Helicopters except Group 3 & 21 (Type Rated)*
- *Group 3 engines supercharging systems*

B2 Groups (for interest)

Radio Systems

- *Group 1 VHF & HF*
- *Group 2 Audio & CVR systems*
- *Group 3 ADF systems*
- *Group 4 VHF OMNI range systems*
- *Group 5 Marker, localiser & glideslope*
- *Group 6 Weather radar systems*
- *Group 7 ATC Transponder*
- *Group 8 VLF Navigation Systems*
- *Group 9 RadAlt systems*
- *Group 10 DME systems*
- *Group 11 Doppler*
- *Group 12 Sat/Nav systems*

Electrical Systems

- *Group 1 Electrical Systems – single gen systems not Group 20*
- *Group 2 Electrical Systems – multi gen systems not Group 20*

Instrument Systems

- *Group 1 Aircraft General Systems*
- *Group 3 Autopilot/flight directors – single axis*
- *Group 5 Autopilot/flight directors – multi axis*
- *Group 7 Autopilot/flight directors - helicopters*
- *Group 8 Remote Indicating Compass systems*
- *Group 9 INS & IRS*
- *Group 10 Pressurisation Systems*

As can be seen, as an apprentice/AME obtained **experience** he/she could acquire a licence with a rating(s) associated to the experience. As experience was achieved in other aircraft or systems, additional licence ratings could be added.

CASA's idealistic one licence fits all totally contradicts the multi pathways system of the past. A system without qualified LAME shortages.

Part 66, a system with critical shortages, hasn't worked but CASA won't admit it or change; they would rather make changes that do not align with the education system, or industry experience in Australia.

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Can the Licencing System be made More Attractive?

In most trade-based systems, a basic licence is available that the licence holder can increase the scope or add ratings based on additional education qualifications and experience.

The Australian Qualifications Framework (AQF) is the national policy for regulated qualifications in Australian education and training. It incorporates the qualifications from each education and training sector into a single, comprehensive, national qualifications framework.

> **Pathways**: The licencing system must be linked to AQF qualifications to make apprenticeships, trade training and licence training more attractive to prospective employees.

In the past, it was recognised by government/agency that in country small maintenance businesses, experience could only be attained on specific aircraft and avionic system types being maintained, so a specific experience based CAR 31 rating could be issued based on business capability.
A one size fits all licence system is simply not workable in Australia.

This is especially applicable to the B1.2 and B2 licences

GA/Aerialwork maintenance organisations are not normally AMOs covering multiple types of aeroplanes, helicopters or avionic systems.

The associated Part 66 licences need amending to support these businesses like CAR 31 "groups" did.

EASA amended both Parts 66 and 147 to help attract maintenance personnel years back.

- EASA adopted a modularised B2 Light licence with avionic system ratings as a different approach to attract maintenance personnel to become licenced. Very much like CAR 31 group rating approach.
- EASA also adopted a B3 licence and Group ratings. Just like the CAR 31 group rating approach.

CASA has extensive evidence and history where the CAR 31 experience-based licence rating system worked well outside the airline/large aeroplane sector. The industry hasn't changed, they are still restricted to providing experience based on the aircraft or avionic systems they service.

> **Action:** CASA must Australianise CASR Parts 66/147 to align our country located aircraft types maintenance or avionic system maintenance capabilities and provision of NVET packages applicable to the experience that can be reached in these businesses – **Licensing must be business achievable**.

CASR Part 66 licences has the basic licence set too high, thus needing exclusions based on no experience that are turning apprentices and young AMEs off trying to attain a licence – even EASA realised this licencing approach did not work.

"Manufacturing Industry Skills Alliance ***2024 Workforce Plan*** confirms that the four main skills challenges facing the manufacturing sector over the next five years are:

● Attraction and increasing the pipeline of apprentices	*Not in CASA's aims*
● Lack of diversity	*Not a major issue in maintenance.*
● Ageing workforce	*A major issue with industry*
● Emerging skills, occupations and industries	*A major issue to maintenance*

One of the key objectives of the AQF is to facilitate pathways to, and through, formal qualifications. It also complements national regulatory and quality assurance arrangements for education and training."

The consequences of the Part 66 licencing system, with exclusions, is too complicated and costly. One point is it is not a "progressive" licence adding scope and responsibilities as additional qualification are earned by apprentices/basic tradesperson.

When will the aviation regulatory system accept 'structured training' and 'relevant qualifications' by recognising VET qualifications and be interconnected with Australia's education system?

ICAO Annex 1 Standard: In the provisions of Annex 1, the Licensing Authority is deemed to have been given the following responsibilities by the Contracting State:

a) assessment of an applicant's qualifications to hold a ***licence or rating****;*
b) ***issue and endorsement of licences and ratings****;*
c) designation and authorization of approved persons;
d) ***approval of training courses****;*
e) approval of the use of flight simulation training devices and authorization for their use in gaining the experience or in demonstrating the skill required for the issue of a licence or rating; and
f) ***validation of licences issued by other Contracting States.***

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