



Date Published 19/12/2022	NEWSLETTER	Volume 19 – Issue 12 December — 2022
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Merry ‘2022’ Xmas & a Prosperous ‘2023’ New Year

We need to put the last decade behind us and look forward to a positive future. This can only be achieved if the drafting style is based on fair-dinkum performance based regulations with the minimum amount of red tape. If a requirement does not value-add to safety, why have it?

Aviation under the control of an ‘Agency’ has certainly been an uncertain business model with so many stops and starts that have hindered the stability of what was once a growing industry in Australia. Today there are a number of silos being generated that further splits the industry.

The portfolio government department should set the policy that the Agency implements.

Engineering, in particular, has lost its ability to attract school leavers simply because there is no defined career pathways to attract job seekers. This is an important factor to be addressed.

Training costs are also a major factor when compared to other competing engineering fields. All engineering trades and professions are competing for limited job seekers who are not being prepared in the schooling system for trade based training and careers.

The skills gap between secondary school and pre employment in this industry needs to be covered by a pre-employment national vocational education training (NVET) qualification system just like they have done in NZ.

Both manufacturing and maintenance need career pathways to be identified so proper supporting training packages can be provided by the NVET supported Australian Qualification Framework as they have done in NZ. Job seekers look to what education qualifications are required.

Manufacturing and maintenance facilities capability to participate in the global aviation engineering markets in their own rights must be the focus of regulatory development, especially to re-align with, and enhance, the Australia/USA Bilateral Aviation Safety Agreement that replaced the Australia/USA Bilateral Aviation Agreement in 1996.

Engineering regulatory development has to integrate with the rest of the federal, and in some circumstances, state legislation and regulations. The failure to do so since 2002 is why government and CASA have not been able to finalise legislative/regulatory reform that provides safe competitive sectors of aviation engineering both domestically and globally in our own rights.

Engineering maintenance entry levels for sport and recreational personnel should be the basis for advancement to maintenance of all aircraft types and aeronautical products maintenance.

A return to minimising differences with ICAO Standards & Recommended Practices should be a priority in engineering regulatory reform. The future shows promise as CASA resets change.

It has taken time and effort over more than 2 decades to witness CASA changing course.

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1. Aviation is a job creating industry

We end this year with CASA, at long last, listening to industry and agreeing to make changes so we can attract new personnel to rebuild the workforce. Common-sense changes are required to enable individuals, micro/small/medium & large businesses to compete in this civil aviation industry. We want a regulatory system that is part of the federal legislative system.

CASA is now making positive proposals, accolades to CEO Pip Spence as the culture of CASA starts to change.

Our plea is that we have one regulatory system, not a number of regulatory silos within the system.

Government and CASA are fully responsible for the success of civil aviation. Only they can make regulatory changes to make it cost-effective to participate in civil aviation. Do they have the vision to return to a prosperous civil aviation system?

CASA should look very closely at the Canadian system, it matches our legislative structure better than the EASA or FAA systems. Their concepts would work within our legislative system.

Actions Required to Create Jobs

A. Regulatory framework to support global participation.

Design, manufacture and maintenance of type certificated aircraft and products should enable our businesses to be globally recognised using the same standards as applied in the US/Canada & NZ to support future trade. Compliant to ICAO Standards and Recommended Practices.

B. Government to government trade agreements must be attained.

- These are normally initiated by CASA with another nation's National Aviation Authority, to support our industry growth, then include Government Portfolio departments and DFAT to negotiate free trade agreements. (e.g. US BASA)

C. CASR Part 21 realignment with FAR Part 21.

- CASA committed to realign with FAR Part 21 in 2019 post a bilateral meeting between CASA and the FAA in Canberra.
 - Our members are patiently waiting for this to happen to expand manufacturing and maintenance. (Hard to find commitment in CASA policy development workplan)
- Requires CASA coordination with Department for submissions to FAA.

D. CASR Part 42/43 alignment to add 'maintenance' to the US BASA.

- Places focus on global alignment of CASRs associated with "maintenance" so Australian AMOs can maintain US &/or Asian registered aircraft and aeronautical products.
- Enhancing maintenance services capabilities in the US BASA will be the cornerstone with similar agreements within the Asia/Pacific region, especially NZ/PNG. EU later.

E. Focus on harmonisation of engineering/maintenance processes.

- The whole intent of the Convention is to have design, manufacture and maintenance harmonised to international standards promulgated by ICAO from time to time. We are no different from other civil aviation nations.
- Domestic standards only for non-type certificated aircraft.

F. Personnel standards.

- This has been the most damaging change for the non-airline sectors and still needs a lot of attention. Converting trade training RTOs to Part 147 actually purged apprentice training.
- Practical trade training and associated knowledge is the responsibility of the NVET apprentice training system (AQF III level). Additional trade knowledge training to specific civil aviation trade levels of airframe, engine, electrical, instrument and radio (AQF IV).
- CASA must make formal arrangements with Australia’s education departments to ensure apprentice training provide the ICAO based ‘practical’ skills that underpin each licence pathway globally. Without applicable practical skills, the student is not employable.
- CASA can set the additional **knowledge** requirements for each licence category/rating that will enable this knowledge to be attained by self-study, on-line or classroom training.

G. Personnel.

- At last, CASA is supporting the modular approach to licencing so it will once again become useable in general aviation, but hopefully stay away from apprentice training.
- CAR 31 modular system was ahead of its time, it supported the CASR Part 23 global type certificated aircraft up to 19 seats unlike the EASR Part 66 system partially copied.
- The NVET system, or equivalent, basic practical skills still have to be harmonised with the ICAO promulgated practical standards. Use NZ pre-employment training course.
- The knowledge needed for basic aeroplanes and helicopters is much less than the complex large transport aeroplanes and helicopters. In Australia, we need the Groups from CAR 31 to underpin the EASR Part 66 current licence ratings and certificates.

H. CASR Part 66 – include both EASR B/C & FAA Repairman categories.

- CAR31 modular group ratings worked, readopt under B licence?
 - Complies with current Part 23 aeroplane certification standards.
 - Complies with Part 27/29 helicopter certification standards.
- Apprentice training standards based mainly on practical skills (ICAO Standards) as originally used in Australia. CASA should promulgate ICAO’s “practical” standards.
 - Modular knowledge packages based on group ratings.
- Adopt the latest amendment of EASR Part 66, include B3, not L certificates..
- Restrict use of CASR Part 147 to type ratings training courses.
 - Automatically accept aircraft manufacturer’s approved type training courses.

I. A Past Shortage of LAME caused the creation of CAR31 group ratings.

- Lessons learnt in the past were ignored when Part 66 was made.
- Part 66 totally ignored the lack of making regulations compatible with other government regulatory systems. Consultation with and making aviation regulations workable with other legislation and regulation is a fundamental failure in regulatory development.
- EASR Part 66 has been amended to include ‘L’ certificates. Part 43 has adopted the FAA ‘Repairman’ instead of the EASR Part 66 ‘L’ certificates. ‘Repairman’ should simply replace the ‘L’ Certificates in EASR Part 66/CASR Part 66 to maintain a single regulatory system without silos that CASR Part 149 has created. See Item 3 below. Repairmen must be part of the CASA Part 66 licencing system as they are in the USA..

2. Why, after 2 plus decades, the TTMRA hasn't created a SAM with NZ.?

In the mid-1990s, Governments supported a Single Aviation Market with NZ that included aircraft and component maintenance and aircraft maintenance engineer licences. Leadership changes in government dropped this and concentrated on flight operations.

In that period, CASA was working to include *FAR Part 43.17* by making it applicable to Australia and New Zealand. CASA should resurrect this direction of the mid-1990s to open the aviation maintenance market between Australia/NZ by removing differences as much as possible.

AMROBA supports this FAR requirement for CASA/Department to obtain the same agreement conditions with New Zealand that the US has with Canada. All makes common sense.

“§ 43.17 Maintenance, preventive maintenance, and alterations performed on U.S. aeronautical products by certain Canadian ~~New Zealand~~ persons.

(1) A person holding a valid ~~Transport Canada~~ **CAA(NZ)** Civil Aviation Maintenance Engineer license and appropriate ratings may, with respect to an **Australian** ~~U.S.~~-registered aircraft located in ~~NZ~~ **Canada**, perform maintenance, preventive maintenance, and alterations in accordance with the requirements of [paragraph \(d\)](#) of this **Part** and approve the affected aircraft for return to service in accordance with the requirements of [paragraph \(e\)](#) of this **Part**.

(2) A ~~Transport Canada~~ **CAA(NZ)** Civil Aviation Approved Maintenance Organization (AMO) holding appropriate ratings may, with respect to an ~~U.S.~~ **Australian**-registered aircraft or other ~~U.S.~~ **Australian** aeronautical products located in ~~Canada~~ **NZ**, perform maintenance, preventive maintenance, and alterations in accordance with the requirements of [paragraph \(d\)](#) of this section and approve the affected products for return to service in accordance with the requirements of [paragraph \(e\)](#) of this section.

(d) **Performance requirements.** A person authorized in [paragraph \(c\)](#) of this section may perform maintenance (including any inspection required by ~~See CASR 91.409 of this chapter~~, except an annual inspection), preventive maintenance, and alterations, provided -

(1) The person performing the work is authorized by ~~Transport Canada~~ Civil Aviation **Authority, NZ**, to perform the same type of work with respect to ~~Canadian~~ **Australian** aeronautical products;

(2) The maintenance, preventive maintenance, or alteration is performed in accordance with a Bilateral Aviation Safety Agreement between the ~~United States~~ **Australia** and ~~Canada~~ **New Zealand** and associated Maintenance Implementation Procedures that provide a level of safety equivalent to that provided by the provisions of this chapter;

(3) The maintenance, preventive maintenance, or alteration is performed such that the affected product complies with the applicable requirements of [part 36 of this chapter](#); **[noise standards]** and

(4) The maintenance, preventive maintenance, or alteration is recorded in accordance with a Bilateral Aviation Safety Agreement between the ~~United States~~ **Australia** and ~~Canada~~ **New Zealand** and associated Maintenance Implementation Procedures that provide a level of safety equivalent to that provided by the provisions of ~~this chapter~~ **these Regulations**.

(e) **Approval requirements.**

(1) To return an affected product to service, a person authorized in [paragraph \(c\)](#) of this ~~section~~ **Part** must approve (certify) maintenance, preventive maintenance, and alterations performed under this section, except that a ~~Licensed~~ **Aircraft Maintenance Engineer** may not approve a major repair or major alteration.

(2) An AMO whose system of quality control for the maintenance, preventive maintenance, alteration, and inspection of aeronautical products has been approved by ~~Transport Canada~~ Civil Aviation **Authority (NZ)**, or an authorized employee performing work for such an AMO, may approve (certify) a major repair or major alteration performed under this section if the work was performed in accordance with technical data approved by ~~the FAA~~ **CASA**.

(f) No person may operate in air commerce an aircraft, airframe, aircraft engine, propeller, or appliance on which maintenance, preventive maintenance, or alteration has been performed under this section unless it has been approved for return to service by a person authorized in this section.”

NZ implement vice-versa legislation to their Part 43 so we have a Single Aviation Maintenance Market.

Good idea back in the 90s, good idea in the 2020s.

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3. Growing Regional Aviation – Sport and Recreation

General aviation was Australia’s greatest success under the direction of the Department of Civil Aviation that was collapsed with the creation of the Civil Aviation Authority in 1988. Fact.

We led the world with Ultra-light aircraft standards that encouraged manufacture and civil aviation design engineers to build a number of ultralight aircraft but also to provide design standards that worked.

Private aviation was very successful throughout regional Australia, country airports had multiple aircraft and the skies had many more aeroplanes in the air than today.

What went wrong when the CAA was created?

The rush to create a Civil Aviation Act and Regulations did not adopt the previous system and all its exemptions, approvals and authorisations, especially in the directly supervised micro businesses that were the core of general aviation. The realisation of this fact was realised by the CAA Executive at that time but before they could take corrective action, new management arrived and created a “new direction” as micro businesses simply went out of business.

In addition, there was a strong government push to shift aviation costs to an off-budget cost especially related to airports. A story in its own rights.

In hindsight, the methodology used was detrimental to general aviation.

Can changes be made to grow jobs?

What is a civil aviation micro-business?

The backbone of non-commercial general aviation is flight training and maintenance provided cost effectively to attract new pilots and maintenance personnel. Current entry costs are a barrier.

DCA used the micro-business system very effectively because they accepted that small businesses, directly supervised by the owner, had to have a great safety culture to stay in business. Make errors, do the wrong thing with student pilots or do the wrong thing with a customer (operator of aircraft/maintenance) simply meant a bad reputation and you didn’t stay in business. Directly supervised flight training and maintenance organisations had a good safety record without the need to have a CASA approved manual on how to run your business. The standards they operated to were promulgated in Air Navigation Orders or, in the case of flight training, an exemption stating standards to be complied with.

Can such a system be used today? YES

To implement a cost-effective and safe non-commercial civil aviation sector, some major vision changes have to be made.

Accept that everyone holding an authorisation from CASA have no intention of being non-compliant with CASA standards and regulations, we just need the regulations and standards to match the minimum safety requirements for each sector of non-commercial civil aviation.

Civil Aircraft Registration. One register – multi inputs.

“Almost all ICAO contracting States currently have a recording office operated by a civil aviation authority at which aircraft and helicopters are registered as to nationality. States that are party to the Geneva Convention on the International Recognition of Rights in Aircraft, 1948 use these offices as registries for interests recognized by that Convention.” Australia was notified on this date but, like so many aspects of aviation, have not notified ICAO that it has been “given effect” in Australian regulations.

The size of civil aviation is mainly taken from the number of aircraft on the Civil Aircraft Register managed by CASA. This does not provide a true picture of the size of aviation in Australia.

The answer is simple, we need a single aircraft register in Australia.

I can hear it now, don't touch my domain, we don't want CASA involved.

There is a way to have one civil aircraft register with CASA internal and external delegates authorised to input aircraft on the register. The amount of detail to be entered is controlled by agreement with CASA by each dedicated industry sector associations.

- VH international type certificated aircraft registration details meet Annex 7 standards.
- VH domestic certificated aircraft registration details meet CASA domestic standards.
- Non VH registered aircraft entered by industry specific association. E.g. recreational, sporting associations, amateur built aircraft associations.
 - Industry appointed delegates using a specific partition of the Civil Aircraft Register.
 - Some associations are member sensitive so only aircraft details, resident State and evidence entered by which association delegate is all that is needed. e.g. Gyrocopter Association, Sport Aircraft Association, RAAus, Ballooning Associations, etc.

CASA issued delegates would be CASA trained on entering details in their specific section of the Civil Aircraft Register that would provide a true record of the number of aircraft and types in Australia, something that has not been possible for decades.

Benefits emergency services as an immediate search of the single database will identify the aircraft and its details. It will immediately identify which association has the owner details.

Amendment of the fields in the Civil Aviation Register by CASA to add the numbering system used by recreational aviation associations whilst retaining the current VH registration numbering system. Gliding Federation has used this delegation system for decades.

System is cost effective without the need to be registered as a Part 149 organisation.

- Lower costs that meets government policy to minimise costs to individuals & businesses.

Globally, other nations would easily see the number of aircraft on the Australian civil aircraft register and that gives more credos to government representatives when they are in global civil aviation discussions.

Recreational Flight Crew/Maintenance Personnel Standards – promulgated by CASA

CASA has a responsibility to promulgate clear and concise standards. The personnel standards of the past arrangements need to be brought up to date to streamline these sectors and reduce costs to associations administering these sectors.

Ideally, CASA should promulgate both pilot and maintenance personnel training and examination standards for every sector of aviation. The international training standards and examinations for pilots and licenced aircraft maintenance engineers are a given.

- Transport Canada Aviation has a cost-effective system for pilot ratings that assures all recreational associations are actually issuing TCA pilot licences.
 - This system should be adopted for recreational aviation – consensus standards.
 - Managed by recreational associations without the need for Part 149. Cost saving.
- EASA has a cost-effective system for recreational maintenance personnel that recreational associations could administer as Canada does for pilots.

This would create a single regulatory system without silos and reduce red tape and costs.

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