

Big Picture v Silo Reform

In the late 1990s, industry was consulted on the best method of delivering a set of regulations written in the same “language” instead of the multi layered fractured system of the past. The “big” picture approach based on the FAR structure was favoured by industry with auto transition, of current participants, with sufficient time for current participants to comply with any differences that may occur as harmonised requirements were implemented. Cost savings were envisaged. FARs Part 21, Part 43, Part 61, Part 65 and Part 91 were identified as the core regulations to be implemented first prior to other regulations. It was to provide international similarity that would assist with international recognition. The Byron CASA regime dropped that approach and looked at using the EASA system to the detriment of industry. We now have a basic FAR system with EASA personnel standards in maintenance and design

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The lack of aviation regulatory reform that is committed to using a whole-of-government approach to reduce duplication is an outcome of the silo system of reform. Removal of government duplication has been governments' policy for well over a decade but employers are still subject to duplication, especially in the fields of Workplace, Health and Safety. Aviation is lagging other industries that have addressed the risks within the industry and implemented procedures and training to reduce errors and safety risks. Removal of government duplication is critical to the risk elimination/reduction attitudes.

OECD: *"in relation to the dysfunctional nature of Australia's federal system: The Australian system of government has the highest levels of unnecessary government duplication amongst all OECD nations in terms of the basic amount of taxpayers' money that is being wasted."*

When CASA introduced the EASA based maintenance regulations it stated:

*"Overall the proposed changes are estimated to provide a small net benefit to the aviation industry and the community overall, estimated at \$155m over the next 15 years". **No such benefit has eventuated.***

Regulating agencies (other than CASA) administer health and safety laws. They're responsible for inspecting workplaces, providing advice and help, and handing out notices and penalties where necessary.

When courts are deciding whether workplace health and safety laws have been met, they may consider whether you've followed the approved **codes of practice** for your state or territory. You can get the approved codes of practice, and advice and support from the regulator in your state or territory listed below.

This raises an important question; does the aviation regulatory system actually implement or assist in implementing/applying a "safety" based "Code of Practice"?

WHS & Approved Organisations' Regulatory Safety Culture

Employer responsibilities under Australia's WHS legislation:

1. Provide and maintain (so far as reasonably practicable) safe plant (machinery, tools) and systems of work.
2. Ensure that (so far as reasonably practicable) the use, handling, storage & transport of plant and substances (chemicals) is safe & without risks to health
3. Ensure that (so far as reasonably practicable) the workplace under his control is safe and without risks to health,
4. Provide adequate facilities (washrooms, toilets, lockers, dining areas, first aid, etc) again, so far as reasonably practicable
5. **Provide as much information, instruction, training and supervision to the workers so that they can work safely**, etc NOTE - this is NOT qualified by 'so far as is reasonably practicable'.

WorkSafe has produced a guideline: [***How WorkSafe applies the law in relation to Reasonably Practicable***](#) which explains the concept and its application.

Besides WHS, there is Environmental, Privacy, etc. to be complied with.

The duplication between these requirements and CASA organisational approvals is extensive and considerable savings, to government and employers, can be achieved by reducing the duplication with WHS requirements taking precedent.

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Silo Reforms Create Barriers

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Instead of creating barriers across a single sector (maintenance) of industry, it is safer and more effective to have one system with different control standards to participate in each particular segment. Before the copy EASA mentality invaded CASA, CAR 30 was safely maintaining airline aircraft down to sport and other non-type certificated aircraft. Our organisation and personnel licencing system adequately provided safe operation of aircraft in Australia. Our personnel standards are now EASA based we need to expand to meet our needs.

Harmonisation was never intended to undo Australia’s inbred aviation safety culture that had been nurtured by safety conscious government aviation regulators in the past. Other Authorities realise we may word our regulations different as long as the intent is achieved. Adoption without understanding the safety culture approach in one country will always fail.

The first point that should be addressed before other aspects are changed is the skilling of the engineering personnel participating in aviation. This single issue has been highlighted by foreign aviation businesses and regulators since, to my knowledge, around the middle of the 1990s. This is when they realised that the mechanical AME/LAME did not have “structures” or design standards skills.

Unlike the A&P mechanic syllabi, Canadian and Europe (and NZ) personnel academic qualifications, we are under-skilled when compared to their system. There are many CASA databases that identify the skill training standards that also highlight these deficiencies.

The question has to be asked, what is CASA doing about implementing corrective action to fix the identified issues? Many identified over a decade ago.

Maybe it is the silos being created within CASA that causes the problem. When it was a government department, Maintenance and Production, including personnel standards, was a single section that realised that any change within both Maintenance and Production had impacts across all elements of Maintenance and Production.

For instance, trade training provided skills for persons to seek employment in either maintenance or production from basic skills to higher technical skill sets. Multi-skilling that was available then is virtually non-existent today. A few learned experienced industry leaders have highlighted this aspect.

Maybe CASA should revert to a Branch covering “Maintenance and Production” that will remove the silo mentality approach by CASA today. See Transport Canada?

Standards remain Constant – Controls Change to Manage Safety.	
Private Ops-	Airline Ops
Aircraft/Component Maintenance Standards	

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Remaining Harmonised with Engineering ‘Intent’

Australia’s aviation regulatory system should be, as close as practical, based on the intent of the minimum standards promulgated by ICAO. In the interest of trade, it is also advantageous to maintain harmony with regulatory intent of the major mature foreign regulatory systems, especially in the engineering fields of design, maintenance, manufacturing and engineering technical training. However, adoption of foreign regulatory systems needs to be harmonised with the rest of Australia’s legislative system to reduce government duplication.

Future Objectives

Regulatory reform started with an aim to remove a patchy regulatory platform.

Safety standards develop over years and are based on the safety history within each country. Most of Australia’s engineering safety regulations were created after unacceptable incidents and accident rates were found unacceptable to governments. Behind these regulatory requirements are safety assessments.

CASA’s AEB has agreed they will harmonise ‘as close as practical’ in several aviation engineering segments. We accept that it is too late to remove the EASA “design organisation” and “AME maintenance personnel” standards. Therefore, they need to be fully adopted. If changes are needed, it is better to enhance the current EASA standards promulgated.

1. CASR Part 21, Subpart J is based on the EASA 21, subpart J.
 - a. The detail and intent of our Subpart J is not harmonised with EASR 21, subpart J.
 - b. **CASA AEB** has confirmed harmonisation as close as practical.
 - c. Will not conflict with Australia/US Bilateral Agreement.
 - d. Supported.
2. CASR Part 21, subpart M is supported.
 - a. **CASA AEB** state it could be simplified – we agree.
 - b. Intent to be retained.
 - c. Supported.
3. Adoption of FAR Part 91 **aircraft maintenance requirements** must not lower current regulatory safety standards in Australia. The current standards in regulations have created the safe standards of today.
 - a. Retain government/Authority requirements for a CASA approved AMO to perform annual/100 hourly inspections.
 - i. Regulatory exemptions for certain ‘persons’ if they have all the equipment, tooling, facility and revision service for all required data. For example:
 1. Private owners with own facilities.
 2. Aerialwork operators with own facilities.
 3. Part 149 Organisations with own facilities.
 4. Aero Clubs with own facilities.
 - b. The same applies to carrying out engine overhauls. The current requirement for a CASA approved maintenance organisation to perform engine overhauls was implemented to reduce incidents and accidents, some fatal.
 - i. Many CASA approved component maintenance organisations are having difficulty in obtaining the manufacturers’ maintenance data to perform overhauls unless they are recognised as a manufacturer’s service centre.
 - ii. Modification status implemented during overhaul is not always covered in the component IPC leading to de-modifying the component whilst in service.

4. Adoption of FAR Part 43 with sensible changes to maintain Australia’s safety standards. To adopt the “**intent**”, not the actual wording, into CASRs by upskilling current AME licence training and privileges. This removes trying to operate two distinctly different regulatory systems within our regulatory system. **Original reform goal.**
 - a. Add duplicate certifications (CAR 42G) to Part 43
 - b. Instead of creating a unique adopted FAA ‘*Inspection Authorisation*’, include the IA ICAO AME “**privilege**” in the Part 66 B licence training as it was pre 1990.
 - c. Our LAMEs held this privilege in Australia pre 1990. This is the most cost-effective method of applying the **intent** of the FAA IA.

5. CASR Part 66, based on EASR Part 66, is now way out of step with EASR Part 66.
 - a. Industry supports re-alignment with EASR Part 66.
 - b. Adopt latest revision of EASR Part 66 including:
 - i. Adopting the B3 licence, aircraft less than 2000Kgs. GA entry licence.
 - ii. Adopting the B2L avionics licence, GA entry licence.
 - iii. Adopting the “L” licences for sport and recreation sectors.
 - c. Add ICAO Annex 1, 4.2.2.1 AME privilege “*shall be to certify the aircraft or parts of the aircraft as airworthy after an authorized repair, modification or installation of an engine, accessory, instrument, and/or item of equipment*” to enhance the capability and scope of the B licence to meet the intent of the FAA, *Inspection Authorisation* being proposed by CASA.
 - d. Enhancing the Part 66 B LAME as suggested in paragraph (c) totally removes the need for the FAA IA.

Part 66 Amplification:

The **current** privilege of a Part 66 LAME **does not permit** the LAME to determine an aircraft, or part of an aircraft, as airworthy. The FAA/IA privileges are based on this ICAO provision that will be provided by a CASA issued “authorisation” without proper training that the basic A&P mechanic and IA must meet.

Unless those that are involved in aviation maintenance are appropriately knowledgeable, skilled and qualified, safety is compromised. IA training is way beyond our VET training.

ICAO AME Privileges Annex 1, 4.2.2.1	Australia	US	EU
shall be to <u>certify the aircraft or parts of the aircraft as airworthy</u> after an authorized repair, modification or installation of an engine, accessory, instrument, and/or item of equipment, and	This LAME responsibility was repealed in 1990 when CAA was ‘captured’ by airlines. Also removed from VET training packages. Note: This is also an Annex 8 requirement (CASR Part 66 add this privilege)	Exercised by the A&P holding an IA	Not included in EASA rules when JAA/EASA were also ‘captured’ by the airlines. Was available under CAA (UK) & others regulations pre JAA ‘consultation’.
to <u>sign a maintenance release</u> following inspection, maintenance operations and/or routine servicing.	LAME responsibility though we have a unique MR interpretation	AMO, A&P mechanic & A&P+IA	Part 66 LAME

Since 1990, the VET training has not provided the knowledge to determine airworthiness.

1st CASA Action: Immediately amend Part 66 to include the ICAO AME privilege to certify as “airworthy”. **This totally obliterates the need for the FAA IA.**

Part 66 Module 10: Add CAA(NZ) “IA training hours” to Part 66 Module 10 to include this Annex 1 privilege training for all B licence holders.

Transition: All post 1990 LAMEs complete one-off CASA provided NZ IA training.

Threat: Most LAME’s think they know, but it is what you don’t know that is dangerous.

Future Objectives (cont)

6. Adopt latest version of **EASR Part 147**, including the exemption clause to exempt State approved RTOs from Part 147 approval.
 - a. Important to adopt the EASR Part 147 Annex specifying classroom hours and theoretical/practical standards.
 - b. RTOs providing Modules 1-9 and Modules 11-17 from Part 66, should be exempt from CASA approval to provide these trade training modules when:
 - i. These modules are included in the VET system, including classroom hours.
 - ii. The Aerospace IRC is crucial to develop these training packages.
 - c. RTOs providing Part 66 Module 10 would need CASA Part 147 training.
7. Adoption of FAR Part 91 **aircraft maintenance requirements** must not lower current safety proven provisions in Australia. The current standards in regulations created the safe standards today.
 - a. The government/Authority requirements for a CASA approved AMO to perform annual/100 hourly inspections must be retained.
 - i. Regulatory exemptions for certain persons if they have all the equipment, tooling, facility and revision service for all required data.
 1. Private owners with own facilities.
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 - b. The same applies to engine overhauls. The current requirement for a CASA approved maintenance organisation to perform engine overhauls was implemented to reduce incidents and accidents, some fatal.
 - i. Many CASA approved component maintenance organisations are having difficulty in obtaining the manufacturers' maintenance data to perform overhauls unless they are recognised as a manufacturer's service centre.
8. CAR 30 should transition to CASR Part 146 and all CAR 30 AMOs automatically be issued with a new Part 146 certificate with same conditions.
 - a. CASA own risk assessment supports this approach.
 - b. AMROBA supports adding a provision for the Part 30/146 to provide airworthiness and maintenance control services to customers, excluding Part 121 operators.

Summary:

Government and CASA should not support or propose lowering of safety standards that have been applied by past governments and safety authority without real transparent safety assessment.

No experienced aviation safety regulator replaces safety-imposed regulations and standards that are the core of the safety standards in Australia before highly transparent and in-depth research and analysis is carried out. We have seen none of this.

In addition, the way to improve standards in the engineering fields is to improve the technical knowledge, practical skills and experience of all the professionals and semi-professionals working in the engineering fields of design, manufacturing and maintenance.

As technology improves, not only with aircraft, but also with tooling and equipment, personnel involved with maintenance need to adjust to a fast changing environment.

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