

AMROBA[®]inc

AVIATION MAINTENANCE REPAIR & OVERHAUL BUSINESS ASSOCIATION, INC
ADVOCATE OF THE AVIATION MRO INDUSTRY

Postal Address:

PO Box CP 443
Condell Park
NSW 2200



Contact

Phone: 61 (0)2 9759 2215
Fax: 61 (0)2 9759 2023
Emails: amroba@amroba.org.au
inquiries@amroba.org.au
Website: www.amroba.org.au

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NEWSLETTER

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1. Devolvement Enhances Safety

CASA's predecessors were replicating the FAA's approval of industry individuals and organisations as "authorised persons" and "delegates" to enhance safety until reforms reversed this program over the last decade. The FAA designee program has been in existence since 1927. Devolvement of long held functions of government to industry representatives is not new...

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2. Regulatory Reform Keeps General Aviation in the Past

For 30 years regulatory reform has been reshaping the same requirements over and over again.

Without conceptual change to the structure of the regulatory framework, government will continue to produce recycled ideas and concepts. This cannot continue – a complete conceptual change is required to properly empower the general aviation individuals and organisations to enhance safety and once again grow this industry. General aviation engineering has the potential to provide at least double the current employment.

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3. Is the Civil Aviation Act supporting General Aviation?

When the ASRR Report recommendations were almost totally supported by the government AMROBA made a submission to government stating that many provisions of the Act would need changing to permanently implement the recommendations of that Review. If the Act is not changed then this or the next regime of CASA will revert to the same processes that continues to create unrest, thus requiring another government funded review into aviation.

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4. Why the FAR/DoT System is Best for General Aviation

What is the basic difference between the FAA and CASA aircraft maintenance requirements? Simplification and clarification of individual responsibilities. The FAA system implements the ICAO registered operators' responsibility to have the aircraft maintained airworthy.

CASA System & North America Systems

FAA General Aviation Inspection Reliance

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Devolvement Enhances Safety

CASA's predecessors were replicating the FAA's approval of industry individuals and organisations as "authorised persons" and "delegates" to enhance safety until reforms reversed this program over the last decade. The FAA designee program has been in existence since 1927.

Devolvement of long held functions of government to industry representatives is not new in Australia or North America and, after years of research to ensure safety would be enhanced and business operate more efficiently, the FAA, in 2009, made major changes to FAR Part 21 & 183 so that they could **'make extensive use of highly knowledgeable industry personnel designated as representatives of the administrator'**.

Besides designated individuals that include designated engineering representatives, designated airworthiness representatives, and designated manufacturing representatives, the FAA introduced Organisation Designation Authorisation which allows an organisation to perform specified functions on behalf of the FAA Administrator relating to engineering, manufacturing, operations, airworthiness, or maintenance.

The FAA also provides a web-link so industry can "Find Designees and Delegations" such as:

'medical examiners', 'designated airworthiness representatives–maintenance', 'designated airworthiness representatives–manufacturing', 'designated mechanic (AME) examiners', 'designated parachute rigger examiners', 'designated pilot examiners' and the recently added **'organisation designation authorisation'**.

The FAA delegation program states: ***"These actions are necessary to provide the FAA with a more efficient process to delegate certain tasks to external organizations. The intended effect of these actions is to preserve and increase aviation safety."***

The clarity that the FAR system will bring to general aviation engineering enhances safety and provides a much improved efficiency that will enable growth in employment.

Regulatory reform and development must include a conceptual change to quickly adapt the FAR Part 21 and 183 changes fully into the aviation system of Australia.

Current concepts are from an era past and is holding Australian aviation back from achieving its potential in global aviation markets.

The ASRR Report supported the FAR devolvement and proposed:

4.5.1 Delegate Indemnity

As part of this collaborative approach to safety oversight, CASA may need to become more reliant on industry delegates to issue low-risk approvals on its behalf. In implementing such arrangements, CASA must continue to indemnify industry delegates, when they are making decisions on behalf of the regulator to ensure that they are able to carry out these functions with confidence and legal certainty.

The Panel notes that a number of reviews of the level and type of indemnity offered to delegates have been conducted or proposed in recent years. In the Panel's view, it is essential that appropriate indemnity arrangements are in place for all industry delegates of CASA.

This will resurrect the fundamentally important use of delegates & authorised persons that helped grow the Australian aviation industry. It also proposes the same direction taken by the FAA.

Regulatory Reform Keeps Aviation in the Past

For 30 years regulatory reform has been reshaping the same requirements over and over again.

Without conceptual change to the structure of the regulatory framework, government will continue to produce recycled ideas and concepts. This cannot continue – a complete conceptual change is required to properly empower general aviation individuals and organisations

to enhance safety and grow this industry. General aviation engineering (design, maintenance & manufacturing) has the potential to provide much higher employment.

The following defines, and supports, adopting general aviation engineering world's best practice (FAA & TCA) to enable a prosperous future.

The European Aviation Safety Authority's (EASA) system has been recognised as being **unworkable** by EASA itself and from the general aviation industry's point of view, the CASRs that have been made based on EASRs are more restrictive than the EASRs they used to develop CASRs. This is a disappointing result and confirms the failure of aviation regulatory reform.

EASA does not have general aviation anywhere near like Australia's general aviation whereas both the US and Canada have a system suitable for the geographic of Australia.

Without doubt, the Federal Aviation Administration (FAA) general aviation design, maintenance and manufacturing standards have, over the last decade, been modernised to achieve the outcome the Australian general aviation engineering industry has been demanding.

The **FAA 2009 Part 21 & 183** (design and manufacturing) changes in particular, have reduced red tape, unnecessary regulations and standards and most importantly devolved previous FAA functions to industry representatives to enhance safety and improve productivity.

This was the program that was being adopted by CASA's predecessors – there is no loss in safety but a huge improvement in productivity as representatives' work more closely with manufacturers and design personnel.

The FAA changes to **FAR Part 145** addresses the deficiency of the EASA Part 145 system for general aviation. There is more flexibility in the provision of maintenance services under the new FAR Part 145 and even under EASA Part 145 than there is in CASR Part 145. However CASA's aversion to all things American, means the Australian design, maintenance and manufacturing industry have more red tape and administrative requirements than their counterparts in the US.

Today, there is more technical expertise in general aviation engineering sectors than in CASA so adopting the FAA general aviation engineering system will enhance safety as it has done in the US. Adapting the FAR requirements would not only enhance safety but it is a proven regulatory system that supports the non-Part 121 airline operations sectors of aviation. It would also meet an industry objective in having harmonised Australasian standards with North America.

At the basis of this proposal is the transfer of current CASA functions to CASA industry representatives in the same manner as the FAA. Implemented correctly, devolvement of functions will lower government costs and resources, enhance safety, and improve productivity in operations, manufacturing and maintenance.

The most lucrative current aviation markets for Australian manufactured aircraft and products are North and South Americas whilst a promising emerging market will be Asia, China and India as general aviation expands in those countries.

Is the Civil Aviation Act supporting General Aviation?

When the ASRR Report recommendations were almost totally supported by the government, AMROBA made a submission to government stating that many provisions of the Act would need amending to permanently implement the recommendations of that Review. If the Act is not changed then this or the next regime of CASA will revert to the same processes that continues to create unrest, thus requiring another government funded review into aviation.

The basic problem with the Act is Sec. 98 where government/CASA have made numerous changes over the years because they will not use Sec 9(1)(c) to promulgate *Aviation Safety Standards*, as proposed by the ASRR Report. Basically, the Report states, to comply with Article 37 of the Chicago Convention, the Sec 9(1)(c) Standards should be consistent to the Convention and other mature aviation systems like Europe, North America and NZ.

However, as industry has experienced in the past, implementing the recommendations depends on public servants and, in particular, those in the Department of Infrastructure to make changes to the Civil Aviation Act to make these changes permanent. When compared to the NZ Act, the current Act does not have the same detail based on the Convention Articles.

The ASRR proposed:

Recommendation 30

The Civil Aviation Safety Authority changes the current two-tier regulatory framework (act and regulations) to a three-tier structure (act, regulations and standards), with:

a. regulations drafted in a high-level, succinct style, containing provisions for enabling standards and necessary legislative provisions, including offences

b. the third-tier standards drafted in plain, easy to understand language.

In relation to the standards:

- *as a first priority, compliance with ICAO SARPs, with any departures from ICAO SARPs to be specifically identified for formal approval by the Steering Committee*
- *plain language in a logical understandable structure*
- *adherence as closely as possible to the substance of rules in other developed jurisdictions (US, New Zealand, Europe, and Canada) to ensure compatibility, facilitating bilateral recognition agreements and efficient international operations*
- *include unique Australian provisions only when absolutely necessary, and only when the Steering Committee formally agrees to their inclusion*
- *take into account the economic impact and a RIS is to be completed*
- *current draft documents are to be used as a starting point to help accelerate the program.*

In relation to the regulations:

- *be as succinct as possible, using the current Part 145 regulations as a model*
- *include offense provisions and provisions for enabling standards*
- *include additional provisions for authority to issue documents, and others, only when required to satisfy Australian legislative drafting and fairness provisions.*

Canada and the United States of America regulatory systems are more compatible with our general aviation and manufacturing industry sectors.

Why the FAR/DoT System is Best for General Aviation

What is the basic difference between the FAA and CASA aircraft maintenance requirements? Simplification and clarification of individual responsibilities. The FAA system implements the ICAO registered operators' responsibility to have the aircraft maintained airworthy.

Regulatory change in 1990 implemented a totally unique system for general aviation not compatible with the FAA system because it removed the need to certify the aircraft, or parts of the aircraft, as airworthy and requiring the "good judgment" of the LAME to determine the aircraft as airworthy.

The LAME today only signs the schedule maintenance and rectification that has been done to "approved maintenance data" which does not always exist in older aircraft maintenance data.

The FAA, and US general aviation aircraft manufacturers, rely on the "good judgment" of their aircraft maintenance engineers (AME) and licence holders (LAME) when performing maintenance.

The FAR aircraft maintenance performance requirements provide safer aircraft without the confusion of CAR/CASR and CASA advisory material.

The vast majority of the VH registered general aviation aircraft have type certificates issued by the FAA. It therefore makes no sense to apply aircraft maintenance requirements that are not adapted from and harmonised with FAR requirements.

However, regulatory reform over the last two decades has not adapted the FAR system for general aviation aircraft. The CAA was moving that direction with NZ two decades ago but that never eventuated. NZ adapted the FAR system without adopting the US Department of Transport fixed based operator (FBO) system. The FBO system, implemented properly, would work very effectively in Australia's general aviation sectors. FBOs are not approved by the FAA.

Adapting the FAA/DoT system for general aviation would mean the vast majority of privately owned aircraft would only be subject to an annual inspection (FAR) by a LAME (possibly holding an Inspection Authorisation) without the need for 100 hourly inspections irrespective of hours flown. The FAR system requires the aircraft registered operator to keep it in an airworthy condition.

Though it sounds the same as the current system, the difference is the registered operator is also given the option who does the rectification of the “must-do” maintenance and then plan the “recommended” maintenance identified during the annual inspection.

The FAA separated ‘inspection’ and “other maintenance” to enhance safety and is proven as not only a safer system when done properly but enables the LAME flexibility with aircraft that he/she continually maintains.

The Australian system is restricted to maintenance spelt out in a schedule and, if it’s the manufacturer’s schedule, the manufacturer shifts responsibility to the person doing the maintenance to use their ‘good judgement’ in inspecting and performing maintenance. Clarified later in this paper.

CASA System & North America Systems

For example, nowhere in current regulations or CASA promulgated requirements, does the registered operator have to maintain their aircraft in an “airworthy” condition. (*ICAO Annex 6 standard*). Neither is there a requirement for an aircraft to be certified as “airworthy” by maintenance personnel. *ICAO (Annex 8 standard)*.

In addition, there are no “performance requirements” to ensure the quality of the work being performed leaves the aircraft in an airworthy condition.

If every motor vehicle has to be certified as roadworthy annually, you would expect every aircraft to be continually certified as airworthy at least biennially. The US does this each annual inspection.

The deficiencies were identified in the mid 1980s when the regulatory reform to address the deficiencies in the CAR 1990 amendments were identified. Those same deficiencies exist today. Some of the confusion is created by regulations that enables an election between which maintenance schedule to use and then placing the onus on the registered operator to determine whether their schedule is defective or not effective. The same is done with a system of maintenance.

The maintenance schedules or system of maintenance is not the issue, it is the lack of adopting the performance standards specified in the FARs that underpin general aviation determinations.

The regulations created in 1990 introduced an airline system where maintenance staff are supported by engineering technical services on the non-airline sectors.

General aviation technical services are the manufacturers and approved design engineers.

Unlike the FAA system, the experience and skills of general aviation maintenance personnel are not recognised as they are in the FAA system of North America.

After nearly two decades, it is becoming urgent to change to the FAR system to resurrect the general aviation maintenance requirements without adding unique government requirements that are not in the FAA system.

The FARs include ICAO Annex provisions that were written out of Australia’s requirements in 1990. Since 1990, the regulations only require maintenance to be done in accordance with “approved” maintenance data and, if an aeroplane is being maintained to CAR, Schedule 5, the data promulgated by CASA does not require the aircraft to be maintained anywhere near the standards of the FARs.

FAA General Aviation Inspection Reliance

What is not understood in Australia is that aircraft manufacturers' also place reliance on their aircraft maintenance engineers and LAMEs to use their 'good judgment' when performing inspections and to certify aircraft as airworthy.

US general aviation manufacturers have a clause in their maintenance documentation that shifts liability to the FAA airframe and powerplant mechanic holding an inspection authority to inspect and perform maintenance beyond the guidelines in the manufacturers' documentation.

For example: Cessna SIDs state:

“NOTE: The inspection guidelines contained in this section are not intended to be all-inclusive, for no such charts can replace the good judgment of certified airframe and power plant mechanics in performance of their duties.”

The Turbo Thrush has a similar clause.

“This manual contains information on aircraft systems and operating procedures required for safe and effective maintenance. It shall not be used as a substitute for sound judgement.”

Hawker Beechcraft Bonanza

“This inspection guide is not intended to be all-inclusive, for no such guide can replace the good judgment of a certified airframe and power plant mechanic in the performance of his duties.”

It is time that we had regulations and standards that support the AME & LAME liability and responsibilities placed on them by manufacturers and regulatory requirements.

CASA is quick to blame the LAME and maintenance organisation for a multiple of things but fail to fix their own “toolbox” – regulatory requirements.

Adopt FAR Part 43 and FAR Part 91 airworthiness requirements NOW.

* Become a Member *

AMROBA is dedicated to serving the businesses that are responsible for the in-service continuing airworthiness of aircraft and aeronautical products, including the manufacture of replacement parts for in-service air-craft. This segment of the industry has never had a dedicated advocate until now.

AMROBA membership form is available from the AMROBA website: [Join AMROBA](#)

