

# AMROBA<sup>®</sup>inc

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## NEWSLETTER

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### ***1. Regulations & Standards for the future, not now.***

What will general aviation, including aerialwork and the transport sectors look like in the future? Are we planning regulatory requirements to enable jobs to be created? Why has successive governments enabled the number of jobs to disappear? We need performance based requirements to enable innovation and safety to be enhanced. CASR Part 23 automatic adoption of the new global Part 23 “consensus standards” will spur the adoption of innovative and technology-oriented solutions to safety challenges for aeroplanes ≤ 19 seats and 5818 Kgs.

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*To create jobs in aviation, government policy must support simplified performance based regulations that fully support the freedom to fly.*

### ***2. Non-Harmonised Engineering Requirements exporting jobs.***

The development of engineering requirements over the last decade has potentially exported engineering jobs off-shore due to lack of harmonisation. For the last decade, every requirement being created is costly, adds red tape and is not compatible with requirements being implemented throughout the Pacific Region. Nearly every NAA is either adopting EASA or FAA design organisation requirements with the most minimal word changes. Engineering cannot have differences, design and certification has been aligned with FARs (BASA) but EASR Part 21 J is acceptable to the FAA. We need to repeal and adopt EASR Part 21 J – word for word.

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*What a waste of government money the aviation regulatory reform has been. All it has done is create more unique Australian requirements and red tape. Waste, waste.*

### ***3. Harmonised Australasian Aviation Requirements.***

If politicians looked at the Pacific Region and ask why Australian aviation businesses do not have more involvement, they would quickly find out that the Pacific Region is harmonised with the NZ aviation requirements. Instead of looking at Europe, North America, government should be concentrating on Pacific Region harmonised aviation regulatory requirements. This is not only cost-effective for government but would provide a broader aviation market to participate in.

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*The first direction that the Minister should direct is to have harmonised Pacific [Region] aviation regulatory requirements by end of next year. (PARs)*

### ***4. Broader Skills Training needed to address several issues.***

Modern aircraft and even general aviation aircraft have a higher reliability than those of the past. The problem that this has created is the opposite direction of the policies being applied by educationalists. In hindsight, this has highlighted the need for practical training facilities to address the broader skills that may not be available in a small business or in a larger organisation operating the highly reliable current and future transport category aircraft. Changing the training platform is long overdue.

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*More practical skills need to be provided within RTOs as aircraft reliability continues to improve. May even need refresher training to maintain skills.*

CASA's most recent survey of itself: <https://www.casa.gov.au/mopreport>

Lost count of the surveys over the years – outcomes never reduce regulations and red tape.

## ***1. Regulations & Standards for the future, not now.***

What will general aviation, including aerialwork and the transport sectors look like in the future? Are we planning regulatory requirements to enable jobs to be created? Why has successive governments enabled the number of jobs to disappear? We need performance based requirements to enable innovation and safety to be enhanced. CASR Part 23 automatic adoption of the new global Part 23 “consensus standards” will spur the adoption of innovative and technology-oriented solutions to safety challenges for aeroplanes **≤ 19 seats and 5818 Kgs.**

A performance-based standard establishes a level of performance that must be achieved through the airplane’s design, rather than dictating how a manufacturer should arrive at a particular level of performance. For instance, proposed § 23.750(a) states: “The airplane cabin exit design must provide for evacuation of the airplane within 90 seconds in conditions likely to occur following an emergency landing.” The standard states the expected performance of any proposed design for an emergency cabin exit—it does not state *how* the design should be accomplished (e.g., cabin lighting, marking) to achieve that performance.

However, how hard is it for government to adopt minimum international standards promulgated by ICAO? The type certification standards are automatically adopted in CASRs Parts 23-31 but the minimum standards from ICAO are ignored in favour of the most administrative and costly foreign system that can be adopted and then they add some more red tape.

Like every other technical industry that prospers, prescriptive requirements are being replaced with performance based requirements (PBR). PBR makes it clear that safety is the industry participants’ responsibility. Like the move to “consensus standards” in Part 23 to open innovation and improve safety, PBR should be applied to operations and maintenance.

Any safety focussed industry also builds its safety platform on the attitudes of those involved and being a fit and proper person to participate in this industry.

Both pilots and maintenance personnel must develop specific practical skills to a high level. This means future requirements will need performance based standards for both disciplines. This is the ab-initio elements of skilling those that want to participate in aviation.

The next criteria to address is providing PBRs for academia levels of knowledge skills required to apply those specified practical skills correctly.

Without doubt, over the next decade, digitalisation of many aspects of aviation will happen. For instance, we will eventually have electronic log books in GA. You can already access maintenance data on-line to the workplace tablet. Older aircraft will have all instrumentation digitalised except for those that are maintained for historical purposes.

Most other NAAs of mature aviation markets have already started implementing PBR, when will we see it in Australia?

Education has to be reformed so on-line training becomes the norm and attending a RTO is based on developing practical skills to world best practice.

This can’t happen until we get the right government regulatory structure to support aviation.

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## ***2. Non-Harmonised Engineering Requirements exporting jobs?***

The development of engineering requirements over the last decade has potentially exported engineering jobs off-shore due to lack of harmonisation. For the last decade, every requirement being created is costly, adds red tape and is not compatible with requirements being implemented throughout the Pacific Region. Nearly every NAA is either adopting EASA or FAA design organisation requirements with the most minimal word changes. Engineering cannot have differences, design and certification has been aligned with FARs (BASA) but EASR Part 21 J is acceptable to the FAA. We need to repeal and adopt EASR Part 21 J – word for word, including adopting the EASA guiding material.

The Australian military has virtually ignored the CASR Part21, Subpart J ADO because it is not an “extant EASA design organisation”. In their guidance material they have opted to accept any design organisation that is an extant EASA design organisation, something the current Subpart J design organisation is not. This means the military could opt for a foreign extant EASA design organisation before a CASA approved ADO.

The military used the same methodology as CASA used to adopt FAR Part 21. The design requirements have been adopted from the EASR requirements and GMs nearly word for word. They have also advised in there GM that they recognise the EASA design organisation with no mention of the CASR Part 21, Subpart J design organisation.

*“GM 21.A.235 - Issue of Military Design Organisation Approval*

*a. Where a design organisation **has an extant EASA Part 21 design organisation approval**, and when the military design activity are in the scope of the EASA term of approval, the organisation may be accepted by the Authority to satisfy the DASR 21 requirements for that scope of work with any further investigation limited only to the delta between the two approvals. The Authority is to be kept informed by the design organisation of significant changes to the organisation and of any EASA findings that may impact the military design activity.*

*b. Where a design organisation **has an extant EASA Part 21 design organisation approval**, and when the scope of the EASA term of approval does not entirely cover the military design activity, those parts of the organisation's EASA Part 21 exposition that are equally applicable to satisfy the DASR 21 may be accepted by the Authority as equivalent in respect of the DASR 21 requirements. It is permissible that only those parts of the organisation that are specific to the military activity or requirements are addressed in the DASR 21 exposition. Those requirements covered by read-across of the sections of the EASA exposition document are to be identified and the EASA document clause reference quoted.”*

Until government, CASA Board and CASA understand adoption and implementation of harmonised aviation engineering requirements, our industry suffers. The public service legal argument that the wording has to be changed is a furphy.

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## ***3. Harmonised Australasian Aviation Requirements.***

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Aviation is a global industry and the days of unique requirements are over. The ICAO standards for the non-airline sectors have less red tape than what is applied in Australia. New Zealand has had its focus on the international market in the Pacific region for years and have assisted most Pacific countries to adopt the NZ aviation regulations with minimal changes. These countries copied the NZ requirements – something Australia should be doing ASAP. Basically the Pacific Islands have adopted the Kiwi system.

*The Pacific Aviation Safety Office (PASO) is a regional international organisation overseeing aviation safety and security oversight in the Pacific Islands using guidelines provided by the International Civil Aviation Organization (ICAO). PASO was created on 11 June 2005, as a result of the Pacific Islands Civil Aviation Safety and Security Treaty (PICASST) and is managed by a permanent staff based in Port Vila, Vanuatu.*



*States which are currently Parties to the PICASST are: Cook Islands, Kiribati, Niue, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. Countries which are also members of PASO, but not Parties to the PICASST are: Australia, New Zealand and Fiji.*

PASO exists to:

- to meet the requirements of the member states in the provision of aviation safety and security regulatory oversight services, in accordance with PICASST
- to undertake the purpose of the organisation in a manner which is cost effective and sustainable in the long term; to utilise coordinated and collaborative business and inspection methods to minimise the costs of safety and security oversight to participating states and the aviation industry
- to support the aviation industry in participating states by the provision of timely advice and guidance in matters of aviation safety and security; and
- to promote an internationally recognised standard of aviation safety and security excellence, based on ICAO Standards and Recommended Practices (SARPS), within the Pacific Islands region.

Australia is part of this region and should be focussed on staying harmonised with NZ so that the [Trans-Tasman Mutual Recognition Arrangement \(TTMRA\)](#) could be properly recognised in aviation.

### **Under the TTMRA, with a few exceptions:**

*a person registered to practise an occupation in Australia is entitled to practise an equivalent occupation in New Zealand, and vice versa, without the need for further testing or examination.*

Pilots, LAMEs, AMEs, etc. should have no restriction working in either country.

This was the aim of government back in 1996, why has CASA been allowed to ignore it?

The government has the ultimate responsibility, has it not?

The ultimate aim of the treaty (Chicago Convention) that Australia signed was to adopt as closely as practical the international standards and recommended practices as it was recognised in 1944 that aviation is a global industry.

The attitude of filing differences with ICAO only highlights to other NAAs the inability of government to meet its obligations under this treaty. We need an Act that commits government and CASA to implement global standards into the aviation system. Most ICAO standards can be written as a PBR.

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#### ***4. Broader skills training needed to address several issues.***

Modern aircraft and even general aviation aircraft have a higher reliability than those of the past. The problem that this has created is the opposite direction of the policies being applied by educationalists. In hindsight, this has highlighted the need for practical training facilities to address the broader skills that may not be available in a small business or in a larger organisation operating the highly reliable current and future transport category aircraft. This change in the training platform is long overdue.

We now have line LAMEs that do not get to use their practical skills on a regular basis because of aircraft reliability. When tradespersons do not exercise their skills then these skills may need to be exercised in some sort of refresher training. The FAR system is strong on refresher training in the airline sectors for line maintenance personnel. Those that work in airline base maintenance maintain their skills.

In GA, the skills are maintained due to the nature of GA aircraft maintenance but limited to the work performed by the AMO. For example, an AMO that only services metal framed aircraft may not provide the practical skills necessary for composite or wooden framed aircraft. Composite skills vary depending on the material used and the complexities of the repair systems required.

In addition, avionic equipment is going through major conceptual changes as components are miniaturised and digitalised. This has been seen major weight savings as the older equipment is replaced. This will become more common as costs are reduced to upgrade.

The lack of practical skills has been identified but there is still no commitment from any government training policy determinations that supports increasing the practical training under the guidance of skill tutors at recognised training organisations.

Large modern aircraft are so reliable that little practical work is required compared to the past. The reliability means maintenance personnel don't utilise their practical skills and, to maintain those skills there is a need for refresher training when maintaining these aircraft.

The knowledge aspects can be attained by on-line providers at lower costs than what is being produced. If we faced reality, there would only be a couple of on-line providers as the numbers are not that high unless we adopted the same knowledge requirements of EASA and open up the practical skill training to Education approved RTOs.

Of course, proper adoption of the EASA knowledge base system and a return to trade skills in Australia would fix the problem.

The licensing training should be separated from the trade training.

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