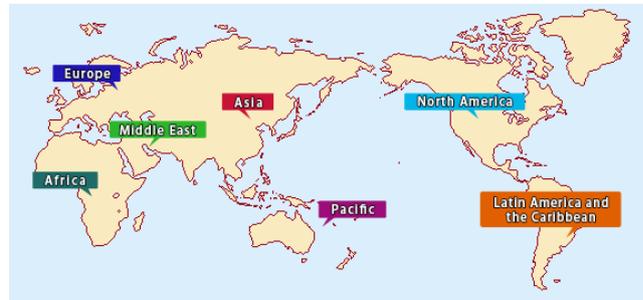


## AVIATION MRO FUTURE – POST 2020

Based on all the international reports of growth in the Asia-Pacific Regions, it would be expected that the government would be making provisions so that Australian aviation MRO businesses would have a regulatory system that harmonised with our Pacific partners.

Australia already has a Bilateral Agreement with the United States that covers design and manufactured parts that needs amendment to cover maintenance services. The major challenge behind all agreements is to verify each country's commitment to *Article 37* of the Convention on International Civil Aviation (Chicago Convention), 1944.



**Article 37** states that each State “*undertakes to collaborate in securing the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation*”.

In other words **harmonisation**. The problem Australia has is that “harmonisation” to a legal person means something entirely different to a technical person.

So what are we trying to harmonise in relation to the MRO industry? Unique legal requirements or the global “regulations, standards, procedures and organisation”?

ICAO states the “legal system” of a country should “proclaim establishment of CASA”:

3.2.1 The Convention on International Civil Aviation does not *specifically* require a State to promulgate “primary aviation legislation”, a national legislative framework commonly known as the “civil aviation code” or the “civil aviation act”, proclaiming the establishment of a State’s civil aviation organization. However, the Convention, in most of its Articles, refers to a State’s national laws and regulations relating to the admission to or departure from its territory of aircraft engaged in international air navigation. It also refers to State regulations in respect of the operation and navigation of such aircraft while within its territory, the registration of aircraft in the State, and the flight and manoeuvring of aircraft, including the certification of airworthiness and personnel. Further, the Convention requires that “each contracting State undertakes to keep its own regulations in these respects uniform, to the greatest possible extent, with those established from time to time under this Convention” (Article 12).|

Further clarity is also provided by ICAO in what they mean by “regulations”:

### 3.3 SPECIFIC OPERATING REGULATIONS (CE-2)

*Note.— Throughout this manual, the term “regulations” is used in a generic sense to include but is not limited to what may be variously considered by States as instructions, rules, edicts, directives, sets of laws, policies, requirements and orders. The specific status given to a regulation when it is applied within the State and the penalty assigned in the event of non-compliance are matters for the judgement of individual States, taking into account their responsibilities under the Convention.*

Basically the ICAO “regulations” are instructions, rules, edits, directives, etc. that “adopt” the Convention standards and, where necessary, the recommended practices of the Convention Annexes. ICAO also expects the Civil Aviation Authority (CASA) to promulgate these requirements as does EASA and the FAA. Transport Canada promulgates “standards” supported by high level parliamentary regulations, a system similar to ours.

## Harmonisation

Harmonisation benefits trade between countries and should have government's full support so free (aviation) trade agreements, including NAA-NAA technical agreements, can be attained in our local region first and then globally.

The approach to harmonisation has changed over time. 15 years ago each State created their own rules that sometimes achieved the same outcome but always had differences that created difficulties in creating "technical agreements" between countries and NAAs. Individual countries requirements provided for the "intent" of SARPs but could be drafted quite differently. This has caused the confusion between nations and makes it harder to obtain agreements between nations and regulators.

Since the creation of JAA/EASA it has now become the norm for those countries not in the EU or USA to adopt the requirements as close as possible, word for word, from EASRs or FARs. Most countries outside these two regions have, to remain in the international aviation MRO market, simply adopted the requirements from either of these two regions that benefit their own aviation market.

For instance, the EASR Part 21, Subpart J requirements have been adopted by most Asian countries, and the Australian military, word for word. The Australian design industry supports adoption as it will not jeopardise the very important BASA/IP with the USA/FAA for product manufacture.

CASA's attempt to adopt ended up with differences that increased costs to Australian design organisations and has not opened any foreign market to Australian businesses.

That is a total failure of government to open markets for Australian businesses.

Harmonisation, if implemented correctly, means improved business participation in a global aviation market where many other countries are gaining global advantage because of their ability to "adopt" standards that meet the ICAO Standards & Recommended Practices (SARPs). SARPs are "minimum standards" that should be adopted at a much faster pace than has happened under governments of the last couple of decades, or, since the formation of an independent agency, CAA/CASA.

Australia needs to look for the best model that will enable our businesses to thrive when determining which country's ICAO based standards would best provide jobs in Australia.

North America (USA/Canada) has the closest market structure from airlines to general aviation, though much larger, compared to Australia. That does not mean that parts of the EASA requirements could not be used to provide for growth in the Australian aviation industry. As stated above, the EASR Part 21 J should be adopted word for word.

Refer Attachment A and B for cross references to source requirements and preferred regulatory system for adoption.

---

## Major Aviation MRO Models

Three major regulatory systems exist as models, EASA, FAA and TCA. From an MRO perspective, the most recently amended model has been the FAA MRO system.

Don't be confused, the JAA, pre EASA, basically adopted the FAR requirements for international operations and product certification, and Europeanised FARs to cover the differences between the large manufacturing countries requirements of Europe and North America. In addition, the JAA had to cover many countries with various levels of compliance with ICAO SARPs. Some EASRs still contain the FAR spelling.

Australia sort of adopted the EASA Part 145 but somehow added requirements that lost the benefits of harmonisation. One of the reasons was the unique adoption of the EASR Part 66 licencing requirements. Both these parts need a Post Implementation Review (PIR) not just Part 66. CASR Part 21 needs a PIR as FAR Part 21, source document for CASR Part 21, has been amended to implement quality systems across all production systems, the same quality systems that we had prior to the creation of CASR Part 21 based on FAR Part 21. If you "adopt" a Part or Section from another system (e.g. EASR or FAR) then it is crucial that CASA maintains compatibility with the source document. This has failed to be done over the last decade.

The EASR requirements for MRO and manufacturing lack the clarity that FAR requirements have in many aspects. To a larger degree, the clarity of the FAR standards are needed in the Australian MRO, including maintenance requirements.

**Fact:** Prescriptive requirements restricts innovation and stifles aviation as has been proven globally.

**Fact:** Public servants always state that they need to write copious amounts of guidance material to support performance based requirements (PBR) that negates the purpose of PBR.

**Fact:** Innovation works where PBR is applied and liability responsibility is transferred from government to the private sector.

**Fact:** PBR works under the "rule of law" principles but cannot work under the "rule by the regulator" system that has been created.

When and 'if' government directs that "rule of law" principles and PBR are to be applied to aviation, then we will see a return to jobs growth in this industry.

AMROBA will continue to lobby for political support to benefit our members' future.

*Ken Cannane*  
AMROBA  
Phone: (02) 97592715  
Mobile: 0408029329  
[www.amroba.org.au](http://www.amroba.org.au)  
*Safety All Around.*

1/09/2016

## Attachment A

The chart below identifies sectors of the industry, the ICAO standard(s) that addresses that sector, the source document from which the requirements has been sourced (ICAO/EASR/FAR) and if the CA(S)R is current to the related version of the source document. Government must direct CASA to maintain currency and compatibility with the source document to keep globally harmonised.

HARMONISATION DOES MEAN REMAINING CURRENT WITH INTERNATIONAL STANDARDS					
Sector	ICAO Standard	CA(S)R Part	Source Standard	Harmonised	Compatibility
Design Organisations	Annex 8	Part 21, Subpart J	EASR Part 21, Subpart J	No	Should also be compatible with FAR Part 183, Subpart D
Aircraft/Part Manufacturing	Annex 8	Part 21, Subpart F, G, K, and O.	FAR Part 21, Subparts F, G, K, and O.	No	FAR Part 21 was amended in 2009 to apply quality systems to all PAHs
Certificate of Airworthiness	Annex 8	Part 21, Subpart H	FAR Part 21, Subpart H	No	Ongoing inspection requirements to maintain certificate validity required.
Aircraft Maintenance Requirements	Annex 8	CAR Part 4A & CASR Part 42	EASR Part M for airlines FAR Part 43-91 for GA	No	There is a need to re-assess against the Annex requirements to reduce red tape.
Aircraft Maintenance Organisations (Airlines)	Annex 6, Part 1	CASR Part 145	EASR Part 145	No	EASR Part 145 less red tape, FAR Part 145 recently amended to aid productivity and small AMOs.
Aircraft Maintenance Organisations (General)	Annex 6, Parts 2 & 3.	CAR 30	Annex 6	No	Not the same as the FAR approach for GA. FAA do not approve small GA AMOs
Aircraft Maintenance Engineer	Annex 6	CAR 30	Annex 6		AME standards below international (ICAO) AME training standards.
Licensed Aircraft Maintenance Engineer	Annex 1 & 6	Part 66	EASR Part 66	No	Many differences with source document and compatibility for GA
AME Trade Training Organisation	Annex 1	Part 147	EASR Part 147	No	System, as applied, is not compatible with Australia's education system.

The application and implementation of requirements over the last decade added red tape that is unique and unnecessary. It has also moved away from harmonising with regulatory systems that have higher productivity gains for Australian businesses, especially those hoping to access the international aviation market.

## Attachment B

**Cost Effective Approach:** So what is the most cost effective system to adopt aviation requirements from? EASA, FAA, TCA or just harmonise with CAA (NZ) who have less red tape than Australia. The first rule that must be applied is a return to “rule of law” and utilisation of “performance based regulations” utilising the most cost effective system.

Aviation Sector	Recommended Source	Cost Effective Safety
Airline operations/maintenance	Annex 6, Part I as implemented by both EASR & FAR Parts 121/145. Needs FAR Part 43 to make either system cost effective with high levels of safety.	Though the current adoption of EASR Part 145 has been implemented, FAR Part 145 has been recently amended to reduce red tape and improve productivity to improve safety. It is now the world’s best practice as applied to quality based organisations. This requires a PIR to ensure cost effective safety system is utilised.
Charter operations/maintenance	Annex 6 as implemented by FAR Parts 43, 91, & 135.	Australia’s geographic are similar to the USA without the population. The lack of population means aircraft, to service these regional centres need a different consideration of aircraft that can cost effectively operate in these regions. The FAR system is the most cost effective system to support aviation services in rural Australia.
Aerialwork/maintenance	Annex 6 Part II & III as implemented by FAR Parts 43, 91, 133 & 137.	Many aerialwork operations do not need CASA organisational approval to maintain aviation safety as has been demonstrated under the FAR system. These systems safety depends on the aircraft and pilot being certified for the purpose.
GA operations/maintenance	Annex 6 Parts II & III as implemented by FAR Parts 43, 61, 91 & 125 taking into consideration TCA and NZ requirements.	Australia’s GA is more compatible with North America with less numbers involved. Basing all aspects of GA on the FAR system will ensure the most cost effective safety system is applied in Australia. Adoption of the FR system will lower associated red tape that is being implemented in CASRs and proposed CASRs will enable
Pilot/Maintainer	Annex 1 requirements as implemented by FAR Part 61, 141 & 142 for pilots & Part 147 for AME training.	Integration of the FAR system with the Education system in Australia makes us unique to other countries. Canada is possibly the closest aligned to the Australian system. The importance to support apprentices for this industry is needed.
Sport and Recreational	Annex 6, Part II as implemented by FARs Parts 43, 91, 101, 103 & 105. TCA owner-maintenance standards should also be adopted.	The major difference between the FAR approach and the CASR approach is that the FAR sets operational standards for these sectors of operation without any FAA organisational approval process. This simply means that these sectors must meet operational requirements promulgated by the FAA.

Without doubt, the development of aviation requirements over the last decade did not adopt government regulatory development best practices or red tape reduction. Time to adopt word for word to attain harmonisation.