

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 2715
Fax: 61 (0)2 9759 2025
Emails: amroba@amroba.org.au
inquiries@amroba.org.au
Website: www.amroba.org.au

Date
Published
27/01/2017

NEWSLETTER

Volume 14 Issue 1
January – 2017

1. 2017 is the Time to Make GA Great Again.

CASA may have an acting Chief Executive Officer/Director of Aviation Safety but that does not appear, at this moment, to be stopping the orderly regulatory and procedural changes required. Early indications is Acting CEO Shane Carmody is taking charge and making decisions so things can happen. Reducing the number of committees (talkfests) should be a priority. We need “Action Teams” directed to achieve an outcome, determined by CASA/Industry & not by individual team members. International harmonisation by adoption of the least costly performance based system is a priority.

The reduction in red tape is more likely to occur in harmonising with the FAR system than the bureaucratic EASR system. E.g. the FAR system provides for multiple authorisations under one certificate – refer FAR Part 121 air carrier certificate.

[Read more](#)

2. Aviation Safety Is Based On “Trust”.

Australian general aviation, including aerialwork operators, engineering: design, maintenance and manufacturing, is being constrained by over-regulation that delivers low participation, low utilisation of non-airline aircraft and over burdening requirements that are written in a style that works against safety.

If industry is regulatory treated as felonious, as ‘strict liability’ requirements infers, then ‘trust’ cannot be attained between CASA and industry participants.

Safety requires trust – without trust, safety is not fully achieved

[Read more](#)

3. Transition CASR Part 66 To EASR Part 66 To Meet GA Needs.

Without doubt, CASR Part 66 did not adopt EASR Part 66 to the detriment of the GA industry. The uncertainty that this experiment has done to the GA industry demonstrated that drafters did not understand the role of the LAME. Correcting CASR Part 66 by further harmonising with EASR Part 66 and adopting FAR Part 43 to clarify responsibilities will be part of the fix required.

Because CASR Part 66 intermixed into the trade training system, Australia basic skill training has suffered.

[Read more](#)

4. Avionic & Mechanical Group Ratings Required This Year.

The reason for “group” ratings is based on gaining experience in GA. It is not about the basic practical training that should be the same for all AMEs, and it is not about the knowledge that the AME has that can be tested by CASA “avionic or mechanical” examination. Whether CASA or a contracted organisation provides the examinations, is an administrative responsibility of CASA.

Experience has been ignored under CASR Part 66 but well explained under EASR Part 66.

[Read More](#)

Don't forget the Maintenance Conference at the Airshow – 1 March, 2017. Excellent list of presenters will paint a picture of our future – within Australia and in the Indo/Asia/Pacific Region. Also speakers on future training needs.



Harmonisation by adoption of another regulatory system is the only option left AFTER 26 years of continual failure to develop an aviation regulatory system compliant with ICAO Standards.

Inadequately drafted regulations treat aviation participants as untrustworthy. FAA performance based regulations trust FAA approved persons, etc.

The underpinning trade qualification is not highlighted in Regulations because EASR Part 66 overlays each NAA trade training system

EASR part 66 experience plus self-study & examination must be returned to the CASRs.

1. 2017 – Time to make GA Great Again.

CASA may have an acting Chief Executive Officer/Director of Aviation Safety but that does not appear, at this moment, to be stopping the orderly regulatory and procedural changes required. Early indications is Acting CEO Shane Carmody is taking charge and making decisions so “things” can happen. Reducing the number of committees (talkfests) should be a priority. We need “Action Teams” directed to achieve an outcome, determined by senior CASA/Industry Representatives & not by individual team members. International harmonisation by adoption of the least costly performance based system is a priority.

The reduction in red tape is more likely to occur in harmonising with the FAR system than the bureaucratic EASA system. E.g. the FAR system provides for multiple authorisations under one certificate – refer FAR Part 121 air carrier certificate.

Separate the Part 61 independent flight instructor from the Part 141 training organisation so that there is true competition, like there is in the USA, not just restricted to CASA regulated businesses.

So what has to be done to fix G.A. Engineering?

1. Adopt and harmonise with the FARs in the following areas:

- a. **Adopt** changes to FAR Part 21 Subparts F, G, K, & O that basically applies “quality systems” to **manufacturing**.
 - i. Returns to previous CAR 30 quality system. A costly regulatory experiment.
- b. **Harmonise** Part 21 Subpart Q with EASA Part 21 Subpart Q.
 - i. Recent regulatory changes abandoned the simpler FAR Part 183 approach.
 - ii. EASA 21 Subpart Q is closely **harmonised** with FAR Part 183, Subpart D.
- c. **Adopt** FAR Part 43 that will enable many CARs/CAOs/ADs etc. to be cancelled.
 - i. This is the foundation to safe GA airworthiness/maintenance.
 - ii. USA manufacturers’ documents also comply with this FAR requirements.
 - iii. Will remove unique Australian requirements introduced since 1990.
 - iv. Consequential amendments to CASR Part 42 to restrict it to Part 121 AOCs.
- d. **Adopt** EASR Part 66 in its entirety with some changes:
 - i. **Replace** EASR LAME Group ratings with Australia’s Group Ratings.
 - ii. **Adopt** CASR Part 23 split of 19 seats/5180 Kgs for split between B1.1 & B1.2.
 - iii. **Adopt** ICAO LAME privileges for clarity of EASR LAME privileges.
 - iv. CASA must **promulgate** ICAO AME Training Standards for:
 1. **AME practical skills** ICAO Manual Chapters 4, 9, 10, 11 & 12.
 2. **AME avionic/mechanical** knowledge based Chapters 6, 7, 8 & 9.
 3. **LAME specific knowledge** based on Chapter 3.(refer NZ IA training)
 - v. **EASR Part 66 experience** requirements have greater clarity than CAR 31:
 1. Specified years + NAA basic examination = LAME.
 2. Less years if trade trained + NAA examination = LAME.
 3. Less years for full time formal training + NAA examination = LAME.

- vi. Correct **adoption** will align with minimum AME international training standards:
 1. Avionic & mechanical training packages must meet minimum international AME training standards specified by ICAO.
 2. Aligns with comparable mature aviation regulatory system.
- e. **Adopt** EASR Part 147 correctly to recognise the NVET system:
 - i. EASR 147.B.25 enables the NAA to **exempt** NVET approved RTOs from CASA approval – this had been CASA & its predecessor’s policy for decades.
 - ii. CASA should have a government agency to department agreement that:
 1. Requires AME trade skills meet minimum ICAO training standards.
 2. CASA must promulgate ICAO AME training standards ASAP.
- f. **Adopt** specified provision of FAR Part 91:
 - i. In particular, Subpart E in its entirety.
 - ii. Other airworthiness and maintenance provisions in Part 91.
 - iii. **Require** additional LAME training as CAA(NZ) has covered in its training of LAMEs holding an Inspection Authorisation.

CASA could start the ball rolling by issuing instruments to enable these things to happen.

[Back to Top](#)

2. *Aviation Safety is based on “Trust”.*

This is an interesting subject and is the basis of Safety Management Systems. Earning the trust is an individual responsibility to become part of the safety culture required to achieve improvements in safety. Red tape works against safety in many cases.

Australian general aviation, including aerialwork operators, engineering: design, maintenance and manufacturing, is being constrained by over-regulation that delivers low participation, low utilisation of non-airline aircraft and over burdening requirements that are written in a style that works against safety.

If industry is regulatory treated as felonious, as ‘strict liability’ requirements infers, then ‘trust’ cannot be attained between CASA and industry participants.

Safety requires trust – without trust, safety is not fully achieved.

Safety management systems are based on each person having the skills and **attitude** (safety commitment) trusting the other person so aircraft are safe to fly and aircraft are then operated within the capability of the pilot. This overall safety approach should include trust by government and its agencies of this industry’s safety conscious workforce, many that are approved and/or licenced by CASA.

- Is it simply that CASA personnel providing drafting instructions have a lack of trust in those that CASA approves and/or licence, and that is why we end up with threatening “strict liability” provisions in aviation regulations?
- Is it CASA covering themselves because they were deficient in approving a person or entity? That is the impression that these repressive regulations provide.

The concept of the performance based FARs is centred on trusting businesses & certificated personnel to perform their roles responsibly and competently. Penalty provisions are mainly in CFR Title 49, not CFR Title 14 FARs. Maybe CASA should adopt the FAA approach.

CARs & CASRs are not written in a language that “trusts” those that CASA has approved or licenced.

- What impact has this drafting style had on improving safety?
- Most feel the drafting style has a negative impact on safety.

FARs are FAA promulgated standards, they are not parliamentary regulations like CARs. Adoption of the ASRR recommendation would see the FARs being adopted as “standards” with high level CASR to implement. These FAR “standards” include “shall” and “must” so they need regulatory head of power.

Look at the following excerpts from FAR Part 43; this ‘standard’ has clarity which cannot be replicated in parliamentary regulations. Compared to CARs/CASRs/maintenance ADs, this standard is quite clear and supported by minimum FAA ACs/Orders.

§ 43.13 Performance rules (general).

(a) Each person performing maintenance, alteration, or preventive maintenance on an aircraft, engine, propeller, or appliance **shall** use the methods, techniques, and practices prescribed in the current manufacturer's maintenance manual or Instructions for Continued Airworthiness prepared by its manufacturer, or other methods, techniques, and practices **acceptable** to the Administrator, except as noted in § 43.16. He **shall** use the tools, equipment, and test apparatus necessary to assure completion of the work in accordance with **accepted industry practices**. If special equipment or test apparatus is recommended by the manufacturer involved, he **must** use that equipment or apparatus or **its equivalent acceptable** to the Administrator.

(b) Each person maintaining or altering, or performing preventive maintenance, **shall** do that work in such a manner and use materials of such a quality, that the condition of the aircraft, airframe, aircraft engine, propeller, or appliance worked on will be **at least equal to its original or properly altered condition (with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness)**.

FAR Part 43 adoption would enable maintenance CARs, CAOs and ADs to be cancelled.

The following FAR Part 43 excerpt returns to performing inspections to determine whether the aircraft/product meets all applicable airworthiness requirements as it was pre 1990.

§ 43.15 Additional performance rules for inspections.

(a) *General.* Each person **performing an inspection** required by part 91, 125, or 135 of this chapter, shall—

- (1) Perform the inspection so as **to determine whether** the aircraft, or portion(s) thereof under inspection, **meets all applicable airworthiness requirements**; and
- (2) If the inspection is one provided for in part 125, 135, or § 91.409(e) of this chapter, perform the **inspection in accordance with the instructions and procedures set forth in** the inspection program for the aircraft being inspected.

The FAR system uses the ICAO LAME privilege to certify an aircraft, or part of an aircraft, as “airworthy” not just certify for the completion of maintenance. A return to past compliance with ICAO standards.

Their regulatory system is built on “trusting” the appropriate person/organisation meeting their regulatory standards – if they don’t, then appropriate action is taken.

Look at the difference between clear and concise technical requirements written in past regulations and orders and how they encouraged safe participation whereas redrafting clear standards as strict liability imparts the lack of trust that government has for this industry.

The problem is, many strict liability offences have little or no input on safety outcomes and they have never been assessed for this purpose.

- Where are the performance requirements so aircraft remain in an airworthy condition?
- We have lots of specific requirements on paperwork though.

To regain trust within the industry to improve safety, CASA must first change their written instruction to the Office of Parliamentary Counsel (regulatory drafting office) so that performance based regulatory styles can be used, predominately by adopting performance based requirements from the USA FAR system for engineering.

Industry will be safer and grow, i.e. create jobs, when CASA starts adopting performance based requirements that will enable greater flexibility for business management, including reducing the need for so many certificates.

[Back to Top](#)

3. Transition CASR Part 66 to EASR Part 66 To Meet GA Needs.

Without doubt, CASR Part 66 did not adopt all EASR Part 66 provisions to the detriment of the GA industry. The uncertainty that this experiment has done to the GA industry demonstrated that drafters did not understand the quality/conformance role of the LAME. Correcting CASR Part 66 by further harmonising with EASR Part 66 and adopting FAR Part 43 to clarify responsibilities will be a large part of the fix that is required.

Because CASR Part 66 intermixed licencing examinations into the NVET trade training system, Australia's basic skill training suffered and now needs to be completely overhauled.

The failure by CASA to promulgate training standards meeting the minimal international standards promulgated by ICAO is a reason why skills decline has been recognised as a negative effect on maintaining a high maintenance standard. If CASA promulgates the minimum international AME training standards and has confidence in the skills provided then "trust" should be written in CASR regulations and standards.

The lack of clear performance based regulations is a reason why many do not want the responsibility of the AME ICAO licence privileges. E.g. "certify as airworthy".

The first thing CASA must do is promulgate the minimum ICAO AME training standards underpinning the avionic and mechanical training packages. CASA predecessors did this in the past so it is not a new idea.

Promulgate references to the following from the ICAO AME Training Standards:

1. Practical Skills for Avionics and Mechanical:
 - a. Chapter 4, *Natural Science & general principles of aircraft*,
 - b. Chapter 9, *Human Factors, as applicable*,
 - c. Chapter 10, *Airframe*,
 - d. Chapter 11, *Engine & Propeller, and/or*
 - e. Chapter 12, *Avionics – electrical, instrument, autoflight & radio*.

These are the underpinning practical skills needed by avionic or mechanical AMEs; some skills and the honing of these skills will naturally be taught on-the-job.

2. Knowledge requirements for Avionic & Mechanical:
 - a. Avionics Knowledge:
 - i. Chapter 7, *Avionics – Electrical & Instrument*,
 - ii. Chapter 8, *Avionics – AFCS/Navigation/Radio, and*

iii. Chapter 9, *Avionics – Human Factors, as applicable.*

b. Mechanical Knowledge:

- i. Chapter 5, *Mechanical – Airframes,*
- ii. Chapter 6, *Mechanical – Engines/Powerplants, and*
- iii. Chapter 9, *Avionics – Human Factors, as applicable,*

These chapters specify the minimum knowledge requirements that should be attained by qualified AMEs to be able, once attaining the practical skills, to perform maintenance tasks and to certify completion of that task.

c. LAME Knowledge:

- i. Chapter 3, *Civil Aviation Requirements, laws and regulations.*

This chapter includes all requirements and responsibilities of a LAME to be able to certify as “airworthy” and to “return to service” post maintenance. It includes understanding airworthiness design standards, AMO/Operator management, aircraft certification, documents and maintenance, including the role of CASA. CAA(NZ) already include similar training for their LAME Inspection Authorisation.

[CAA\(NZ\) 3 Day IA Initial Issue Course](#) and [1.5 Day IA Renewal Course](#)

Transition Process

Once these new training standards are implemented, auto transition of current LAMEs into the new regime should occur with all certifying LAMEs being required to attend a CASA training course adapted from the CAA(NZ) 3 day IA training course within 2/3 years after the commencement of the amended CASR Part 66.

[CAA\(NZ\) 3 Day Initial Issue Course](#) and a [1.5 Day Renewal Course](#) Those Australian LAMEs that have done this NZ training all advocate for its adoption in Australia.

[Back to Top](#)

4. *Avionic & Mechanical Group Ratings Required This Year.*

The reason for “group” ratings is based on gaining experience in GA. It is not about the basic practical training that should be the same for all AMEs, and it is not about the knowledge that the AME has that can be tested by a CASA “avionic or mechanical” examination. Whether CASA or a contracted organisation provides the examinations, is an administrative responsibility of CASA.

Experience has been virtually ignored under CASR Part 66/147 but is well explained under EASR Part 66. Adoption of EASR Part 66 experience requirements will enable a basic national trade training system to be developed so apprenticeships will once again meet international AME training standards.

Adopting the now international split between transport and normal category aeroplanes of 19 seats will enable the CAR 31 group ratings, as modernised with CASA, to also meet the needs of GA much better than what exists – it is close to the CAR 31 group/specific split.

The group ratings relate to the experience that an applicant can attain in GA and we contend that simulated practical experience should be accepted to enable an applicant to obtain additional “groups” as well as what employment experience can provide.

2017 must be the year of action and completion of regulatory reform in the engineering fields of design, maintenance, manufacture and training.

[Back to Top](#)