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

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1. Moving to the FAA Maintenance Regulations

FAR maintenance regulations are compatible with the EAA AME licencing system if common sense is applied.

One of the first concerns raised by many is how does the EASA based AME licencing system work in FAR based maintenance regulations?

For example, FAR Part 43 refers to the '*aircraft & powerplant mechanic*' in several places and refers to FAR Part 64 for the scope of the A&P mechanic, including the requirement to hold an additional "*Inspection Authorisation*".

The first switch is to replace the *A&P mechanic* with "*licenced aircraft maintenance engineer*" and retain the FAA "*Inspection Authorisation*" as used in New Zealand. An IA holder needs industry experience to hold the IA. A LAME with an IA would be approved to certify completion of major modifications and repairs, as defined in FAR Part 43, as airworthy and to perform the "annual inspection" in general aviation. Where FAR Part 43 refers to FAR Part 64 for the A&P mechanic, simply replace with "*within the scope of the aircraft maintenance engineer's licence and/or rating(s)*".

Part 43 does not work without many airworthiness and maintenance provisions in FAR operational regulations and also in FAR Part 21. It is not hard or difficult to adopt the FARs for general aviation.

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2. Part 66 Modules & Future Proofing our Industry.

In 2006, CASA AME licencing promulgated qualifications based on 17 modules for the AME/LAME but never required Part 147 MTO to issue trade/licence module qualifications.

In 2006, CAO 100.66 followed by the CASR Part 66 introduced **17 modules** that underpinned the maintenance trade/licencing system BUT CASA has never required any VET Recognised Training Organisation they have approved as a Part 147 Maintenance Training Organisation to issue 'qualifications' based on the legislative "modules" they promulgated.

This has led to confusion with non-compatible qualifications that employers cannot decipher to meet the modules that are promulgated.

Basically, CASA should not have approved any Part 147 MTO unless they can provide qualifications based on the promulgated module standards.

The modular system is designed to give employers clarity in the qualifications held by their employees or future employees. The reason we have problems with training is it is not based on the modules promulgated under CASR Part 66. The piston engine problems currently being fixed would not have existed if the VET qualifications were based on the 17 modules CASA promulgated.

Read more

3. Realigning with FAR Part 21 certification standards

We already know that CASA is realigning CASR Part 21 with FAR Part 21 but the benefits are not fully understood by many members outside the design and manufacturing sectors, mainly with global interests.

CASR Part 21 is very different to FAR Part 21.

FAR Part 21 Preamble: "*SUMMARY: The FAA is amending its certification procedures and identification requirements for aeronautical products and articles. The amendments will update and standardize those requirements for production approval holders (PAHs), revise export airworthiness approval requirements to facilitate global manufacturing, move all part marking requirements from part 21 to part 45, and amend the identification requirements for products and articles. The intent of these changes is to continue to promote safety by ensuring that aircraft, and products and articles designed specifically for use in aircraft, wherever manufactured, meet appropriate minimum standards for design and construction. As a result of this action, the FAA's regulations now better reflect the current global aircraft and aircraft products and articles manufacturing environment. DATES: This rule is effective April 14, 2010.*

The old certification rules are too restrictive to accommodate today's manufacturing paradigm." We currently use the old rules but we also added additional red tape.

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The first switch is to replace the *A&P mechanic* with "*licenced aircraft maintenance engineer*" and retain the FAA "*Inspection Authorisation*" as used in New Zealand. An IA holder needs industry experience to hold the IA. A LAME with an IA would be approved to certify completion of major modifications and repairs, as defined in FAR Part 43, as airworthy and to perform the "annual inspection" in general aviation. Where FAR Part 43 refers to FAR Part 64 for the A&P mechanic, simply replace with "*within the scope of the aircraft maintenance engineer's licence and/or rating(s)*".

Part 43 does not work without many airworthiness and maintenance provisions in FAR operational regulations and also in FAR Part 21. It is not hard or difficult to adopt the FARs for general aviation. At the least, the regulations will harmonise with manufacturers manuals, etc.

FAR Part 43 adds the second ICAO privilege for the LAME to certify the aircraft remains 'airworthy' post any maintenance that may affect it from being airworthy. This was part of the aviation regulations pre-1990 so what it does is bring back this privilege at long last. It also aligns with what should be Module 10 for the Part 66 LAME and is definitely in the A&P IA training standards of the FAA and the NZ requirements.

Performance based regulations that sets standards for maintenance and inspections will stop the debate that has stressed this industry and even CASA AWIs for the last decade or two.

AMROBA has created and will send an interactive disc to all members identifying the applicable FARs, Part 43 and operational Parts airworthiness and maintenance provision so members can read the applicable FARs needed to adopt the FARs as CASRs.

Additional FAR Benefits

Another benefit of FAR Part 43 is that the FAA return to service confirms that the maintenance was done i.a.w. the applicable data (approved and/or acceptable) and the aircraft/product was airworthy when completed. No more assumption that it will remain airworthy until the next inspection. At long last implementation of the ICAO maintenance release standards.

FAR Part 43, like the CARs, includes the ability of an independent LAME in GA but, in this litigious society, the FAA also issues AC 150-5190.7, *Fixed Based Operation & Specialised Aviation Services Organisations*. This sets standards for those maintenance organisations that do not necessarily have FAA approval.

Basically the same as pre 1990 when the Department issued maintenance organisation approvals to businesses that only had to comply with the requirements specified in CAOs.

AMROBA recommends that CASA adopts this AC with a little caution. It needs changes to match our societal and government legislative systems that has differences to the USA.

Pity CASA has not made the same commitment to adopt the FARs for GA operational aspects.

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This has led to confusion with non-compatible qualifications that employers cannot decipher to meet the modules that are promulgated. Basically, CASA should not have approved any Part 147 MTO unless they can provide qualifications based on the promulgated module standards.

The modular system is designed to give employers clarity in the qualifications held by their employees or future employees. For instance, the following chart shows what we should be looking for in the qualifications of AMEs leaving Part 147 MTOs.

Employer Expectations – Basic Modules Qualifications – Trade/Licence		
Aircraft Maintenance Engineer	**Trade Modules**	**Licencing Modules**
Aeroplane (turbine) maintenance engineer	1 – 9, 11, 15 & 17	B1.1. Same as trade plus 10
Aeroplane (piston) maintenance engineer	1 – 9, 11, 16 & 17	B1.2. Same as trade plus 10
Helicopter (turbine) maintenance engineer	1 – 9, 12 & 15	B1.3. Same as trade plus 10
Helicopter (piston) maintenance engineer	1 – 9, 12 & 16	B1.4. Same as trade plus 10
Avionics maintenance engineer	1 – 9, 13 & 14	B2. Same as trade plus 10

Except for module 10, these modules standards should be the same standards and outcomes from any country that has adopted the European Part 66/147 system. It should mean international accreditation of tradespersons and licences to the same standards should open a bigger resource pool for business to attract tradespersons with the same skills.

For instance, transferring from aeroplanes to helicopters and vice-versus should simply mean obtaining the applicable module(s) and experience. The B2 is a systems licence and could also be obtained in 'groups' if CASA agrees during the Part 66 review. GA needs groups added as a subset of B1.2. (19 seats and below is recommended).

Future Proofing our Maintenance Industry

If the NVET system had simply put in place the EASA training modules then the modules contents should be the same as in Europe, South Africa and many Asia/Pacific countries. If we have [had] adopted the EASA system, then a LAME from Europe or any country that has adopted the EASA Part 66/147 standards, could be producing tradespersons and LAMEs that should be recognised and work in any of these countries. A foreign LAME under an equivalent EASA based system should be automatically recognised by CASA as meeting the applicable trade modules and the foreign LAME would only need to do a 'bridging exam' for module 10.

This would open the job market globally for our own AMEs/LAMEs and also enable the Australian maintenance industry access to a larger workplace pool of maintenance personnel.

This will mean the CASA Part 66 Modules 1-17 qualifications, excluding module 10, are more transportable not only domestically but globally. This wider pool of qualified workers will assist in future proofing our industry. A technical workforce from many foreign countries have adopted the same EASA AME training system.

We also need to clarify who can issue Authorised Release Certificates, etc. Basically, we support a three-tier approach of broader responsibility of the independent LAME, the need for a Part 145 (light/domestic) and a full Part 145 aligned with FAR Part 145 to make it compatible and beneficial with the new CASR Part 43.

More next Newsletter.

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The old certification rules are too restrictive to accommodate today's manufacturing paradigm." We currently use the old rules but we also added additional red tape.

What is crucial to the success of this change is the devolvement policy adopted by the FAA also be adopted by CASA. The cost savings in the USA were significant and the same should apply in Australia.

The adoption of the FAR system and associated ACs is important to general aviation.

As a result of these changes to once again align with FAR Part 21 will also support the airworthiness and maintenance move to the FAA based system to make the system work more efficiently and effectively.

Design and manufacturing businesses in the USA benefited from major changes to FAR Parts 21 and 183, 18 years ago. CASR Part 21 was based on FAR Part 21 in 1998 but the Government, Department of Infrastructure (DIRD) and CASA have taken no action to keep CASR Part 21 harmonised with FAR Part 21 that, in 2009, provided over $370M savings compared to just over $2M to implement changes to the design and manufacturing industry in the USA.

Changes aligned with ICAO & EASA, reduced costs and enhanced safety and trade.

These regulatory changes made manufacturers more responsibility for their own products, enabling devolvement of FAA regulatory services to design and manufacturing organisations to enhance aviation safety that also enabled the FAA to reduce government costs and provide better regulatory oversight. Less red tape and a safer product outcome.

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