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NEWSLETTER

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1. *The Ugly Truth Regarding Maintenance Training.*

Incompetence is the only answer to why the maintenance training and licencing is in such a mess and almost unworkable. The previous CASA project managers never spoke with other governments departments and agencies. There was no understanding of the role of the AME/AMT, who work in base maintenance and component shops, let alone understand the role of the ICAO Annex 1, Chapter 4 licence privileges. The Education Department recently confirmed no restrictions on course duration. EASR Parts 66 & 147, implemented properly, can lower costs.

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Adopt EASA should mean implementing all the beneficial EASR requirements including course duration. EASR Part 66 did not override EU member States' trade training systems

2. *Implementing National Aviation Trade Qualification.*

NZ implemented and retained a National Trade Qualification that retained the skills to perform aircraft maintenance tasks. The global standards that underpin this training is the practical and experience chapters (10, 11, 12 & 13) of the ICAO maintenance training manual. Many EU countries have AME trade training equivalent that meet the ICAO practical training standards. This qualification must be resurrected and it should be first priority to get the skills back into training.

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NZ has basic trade "national certificate in aeronautical training" Level 3. Underpins licencing training.

3. *Adopting EASR Common Core Modules.*

Once again the sensibility of the NZ system makes sense. They have taken the common core modules from the EASA system that cover mathematics, physics, electrical fundamentals, electronic fundamentals, digital techniques, materials and hardware, maintenance practices, basic aerodynamics, human factors & aviation legislation. These include the common core subjects from the ICAO training manual.

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NZ has a B1.1 & B2 common core modules – Australia needs B1 and B2 common core to underpin B1.1, B1.2, B1.3, B1.4 & B2.

4. *Adding LAME Avionics & Mechanical EASR Modules.*

What also has to be taken into consideration is returning to ICAO terminology and adopting the ICAO LAME privileges and identifying the "scope" of each licence instead of describing scope as a privilege. Time to join the rest of the world. This issue was discussed in our last newsletter. [Last Newsletter](#)

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Once again, we compare NZ system and it clearly identifies the career path for AMEs to become LAMEs and on to other jobs.

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 Asia/Pacific Region. Even speakers on future training needs.



1. The Ugly Truth Regarding Maintenance Training.

Incompetence is the only answer to why the maintenance training and licencing is in such a mess and almost unworkable. The previous CASA project managers never spoke with other governments departments and agencies. There was no understanding of the role of the AME/AMT, who work in base maintenance and component shops, let alone understand the role of the ICAO Annex 1, Chapter 4 licence privileges. The Education Department recently confirmed no restrictions on course duration. EASR Parts 66 & 147, implemented properly, can lower costs.

Australian aviation legislation/regulations have been out of step globally since 1990. The ICAO requirements for a LAME is important to adopt and the scope of the licence needs to be documented.

Why are we not harmonised with ICAO, EASA and NZ?

The reason is CASA, who thought they were experts, did not adopt EASRs properly or work with the rest of government. The damage they have done will take a major rethink to correct. Many of our members insinuate that it was deliberately done to damage GA. Considering the inputs they had during the consultation period, it always raised industry concerns how they developed the regulations.

CASA did not adopt provisions from EASRs that are a major reason for the unique LAME rating system applied to the licence. With a small change to **EASR 66.A.5, Aircraft Groups**, the original CAO 100.90 Series “Groups” could have been retained. For those that are old enough, EASA is similar to the original Group ratings use by DCA before the CAO 100.90 series Group ratings. CASA reintroduced a system from the past that did not work well for GA.

66.A.5 Aircraft groups

For the purpose of ratings on aircraft maintenance licences, aircraft shall be classified in the following groups:

1. **Group 1:** complex motor-powered aircraft as well as multiple engine helicopters, aeroplanes with maximum certified operating altitude exceeding FL290, aircraft equipped with fly-by-wire systems and other aircraft requiring an aircraft type rating when defined so by the Agency.
2. **Group 2:** aircraft other than those in Group 1 belonging to the following subgroups:
 - sub-group 2a: single turbo-propeller engine aeroplanes
 - sub-group 2b: single turbine engine helicopters
 - sub-group 2c: single piston engine helicopters.
3. **Group 3:** piston engine aeroplanes other than those in Group 1.

We need to adopt with reference to original CAO group ratings. The following unused EASR clarifies LAME privileges

EASR 66.A.20 Privileges

(a) The following privileges shall apply:

1. **A category A** aircraft maintenance licence permits the holder to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in point 145.A.35 of Annex II (Part-145). The certification privileges shall be restricted to work that the licence holder has personally performed in the maintenance organisation that issued the certification authorisation.

2. **A category B1** aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B1 **support staff** following:

- maintenance performed on aircraft structure, powerplant and mechanical and electrical systems,
- work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting.

Category B1 includes the corresponding A subcategory

Other provisions of EASR Part 66 also need to be adopted that will enable self-study plus examination plus experience to obtain a licence and or rating. In addition, to obtain a licence, the use of on-line providers is growing in Europe. Tradespersons from allied trades can also be smoothly introduced into aviation maintenance with a more cost effective system.

For a decade or more, MSA, the now defunct industry skill council, (has been replaced by a new SSO to support the Industry Reference Committee responsible for developing training packages) has misled the industry in stating the training had to be crammed into the same training hours that existed 2 decades back. Basically 1200 to 1500 training hours, depending on which State; these hours include competency assessment.

The Department of Education has informed us, at a meeting in Canberra on the 23rd November that they have never had a limitation on course duration. Like NZ, the course duration has to be promulgated by CASA. This will correct one problem. It will enable harmonisation of training packages. Under the Trans-Tasman Mutual Recognition Agreement, we should be harmonising as close as possible with education qualifications.

Job skill requirements must be provided by the education system to CASA standards.

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2. Implementing National Aviation Trade Qualification.

NZ implemented and retained a National Trade Qualification that retained the skills to perform aircraft maintenance tasks. The global standards that underpin this training is the practical and experience chapters (10, 11, 12 & 13) of the ICAO maintenance training manual. Many EU countries have AME trade training equivalent underpinning Part 66 training that meet the ICAO practical training standards. This qualification must be resurrected and it should be first priority to get the skills back into training

NZ underpinned their AME licencing training system with a trade qualification: **National Certificate in Aeronautical Engineering (Related Technology) Level 3** (36 week course). They built a training system that creates a career path for the prospective employee. Aeroplane ●, avionics ● and helicopters ●.

This basic trade training system also underpins many EU countries aviation maintenance training system. NZ has created a training and career pathway that we need to adopt. The other aspects of the NZ system is discussed later.

We need an industry wide skilled basic qualification that will enable employment across the whole industry, including workshops. The next step up for the aircraft maintenance is adding the licence pathway common core modules.

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3. Adopting EASR Common Core Modules.

In NZ, a person holding a **National Certificate in Aeronautical Engineering (Related Technology)** can progress into the common core subjects that underpin both the avionic and mechanical streams.

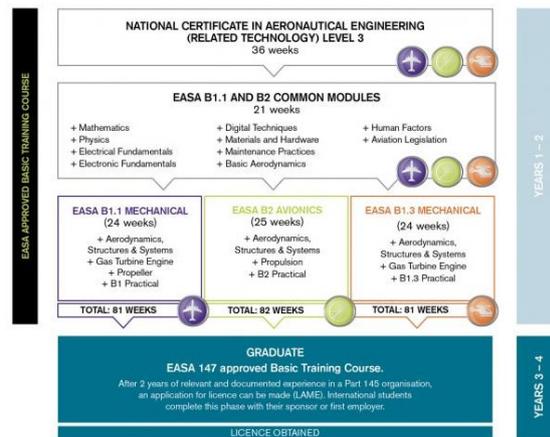
Once again the sensibility of the NZ system makes sense. They have taken the common core modules from the EASA system that cover mathematics, physics, electrical fundamentals, electronic fundamentals, digital techniques, materials and hardware, maintenance practices, basic aerodynamics, human factors & aviation legislation. These EASR modules include the common core subjects from the ICAO training manual.

The common core approach creates an effective aircraft maintenance engineer and provides qualified persons with a greater understanding of the avionic or mechanical licence pathways. Like the basic **National Certificate in Aeronautical Engineering**, the common core builds on a career pathway and provides incentives to take the final step to licencing.

This system is based on meeting the EASA standards and are produced under their EASA Part 147 approval. Converting to meet Australian NVET system can produce better results.

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Training Pathway:



4. Adding LAME Avionics & Mechanical EASR Modules.

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By adopting these avionic or mechanical modules to finalise the applicable training packages will provide qualifications. Add two years of employment and then the NAA (CASA) could issue the licence. The basic document that must be used is the ICAO training manual.

Under this NZ formal training, all instruction training is provided full time and completed in 2 years. Add another two years employment in industry and the licence is then issued. Their only shortfall is it does not include the B1.2 or B1.4 streams in the final packaging. It is mainly for the large transport industry but provides a staged approach to obtaining and retaining skills and knowledge.

The industry’s new IRC with a new SSO will be able to build a training packages that encourages a person to obtain a basic trade qualification utilising basic hand skills and knowledge.

The next “qualification” must be trade common core qualifications in the avionic or mechanical streams. The next stage would be a qualified avionic or mechanical basic qualification. The final stage moves to the full avionic or mechanical fields.

This builds on the training as it needs the basic skills first. It can be used better in Australia under the NVET system using the ICAO training manual.

However, we wonder why training providers’ costs are high. Having to hold two government approvals for the same function is duplication and unnecessary red tape. EASA does not require the NAA to approve what the Education Department approves. This EASA provision was adopted by CASA in 2002 to reduce costs but then ignored by those that do not understand technical training.

EASR 147.B.25 Exemptions

(a) The competent authority [CASA] may exempt a State education department school (RTO) from:

- 1. being an organisation as specified in point 147.A.10.*
- 2. having an accountable manager, subject to the limitation that the department appoint a senior person to manage the training organisation and such person has a budget sufficient to operate the organisation to the standard of this Annex (Part- 147).*
- 3. having recourse to the independent audit part of a quality system subject to the department operating an independent schools inspectorate (ASQA) to audit the maintenance training organisation at the frequency required by this Part.*

(b) All exemptions granted in accordance with Article 14(4) of Regulation (EC) No 216/2008 shall be recorded and retained by the competent authority.

147.A.10 General

A training organisation shall be an organisation or part of an organisation registered as a legal entity.”

CASA has to work with other government departments (Education) to implement this cost saving approach. In addition, exempting State approved RTOs from being a MTO is more cost effective- CASA would still approve courses. Australian RTO standards, including the role of ASQA exceeds EASR regulatory standards. Education already has this arrangement with other professions and tertiary training, some have training referenced to international standards.

Adopting the EASR “exemption process” would also reduce CASA costs, RTO costs and therefore be more cost effective for industry.

A lot of work to be done early next year.

Australia implemented an indefinite certificate of airworthiness many years back on the condition that there was a regulatory system of inspection to maintain the certification basis. Internationally, from 2017 the normal category aeroplanes will be 19 seats/8618 Kgs. Annex 8 LAME continual conformity inspections need to be added to the regulatory system. 9 seats/5700Kg has been replaced.

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