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NEWSLETTER

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1. Specialist or Specialised Maintenance?

Correctly worded regulations and standards are clear and concise, i.e. understandable. Sadly, what has been produced over the last decade has raised more confusion than clarity and one of the main reasons is the failure to adopt and use international terminology and definitions. Instead, we have poorly worded regulations and standards very unique to Australia. Internationally, maintenance not covered by the AME, can be classified as **specialised maintenance**, not **specialist maintenance**.

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Maintenance tasks that are not covered by the ICAO AME Training Manual may be classified as "specialised maintenance" requiring further qualifications.

2. What is a "Certificate of Release to Service" (CRS)?

Does a "***certificate of release to service***" give the impression that the aircraft is airworthy and serviceable or is it, as EASA states, simply a release from maintenance?

AMROBA looks very closely at what CASA states is a "**certificate of release to service**" and how others will interpret this improper terminology.

EASA states clearly in their documentation that their CRS does not mean the aircraft is airworthy and/or serviceable, this will not be the interpretation of our Courts or even members of a Senate Committee. The words "***certificate of release to service***" will be interpreted as the aircraft is airworthy and serviceable to return to service.

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Adoption of the EASA CRS requires adoption of EASA's terminology and interpretation, otherwise others will interpret the CRS as meaning the aircraft is airworthy and fit for flight.

3. The effect of bad terminology on the AME skills.

One reason why the aviation regulatory system relating to AME skilling and licencing is not easy to understand is because it fails to adopt international standards promulgated under the Convention and comply with Government Guidelines.

Instead of harmonising with EASR Parts M, 66 & 147, CASA changed the meaning of EASR wording in the CASRs so they applied a unique system, with different LAME privileges that impacts on international harmonisation.

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Why wasn't the added costs, time and other aspects that directly affected State approved RTOs sorted out with the government departments? Why duplicate approvals?

4. Government Guidelines & Convention Article 37.

One reason why the aviation regulatory system is not easy to understand is because it fails to meet international standards promulgated under the Convention and comply with Government Guidelines. A close review of the government guidelines and Article 37 of the Convention could see a very different regulatory language being applied to the aviation system where regulations would be very minimal & standards adopted.

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Why doesn't CASA follow government guidelines and Convention Article 37 when they instruct regulatory drafters?

1. *Specialist or Specialised Maintenance?*

Correctly worded regulations and standards are clear and concise, i.e. understandable. Sadly, what has been produced over the last decade has raised more confusion than clarity and one of the main reasons is the failure to adopt and use international terminology and definitions. Instead, we have poorly worded regulations and standards very unique to Australia. Internationally, maintenance not covered by the AME, can be classified as specialised maintenance, not specialist maintenance.

Specialised maintenance. **Specialised maintenance services** has been around for decades and usually includes maintenance tasks that are not covered by the (ICAO) international AME training manual; e.g. welding, plating, NDT-radiographic.

a. The skills required for these tasks are normally, in most countries, met by multi-skilling the AME wherever possible.

b. In some cases, specialised organisations/individuals provide the specialised maintenance service under contract to improve efficiency and productivity.

c. Both EASA and FAA identify separate AMO approval for specialised services on their respective organisation approval certificates.

d. The approval basis confirms the specialised organisation has the data, equipment and "qualified personnel" to do the specified maintenance task(s).

However, CASA converted this international standard (**specialised services**) into the need for "**specialist**". Qualified persons are not "**specialists**". e.g. CAR30 "qualified persons".

Regulations, Manual of Standards and advisory material impose this "uniquely" CASA approach on our industry because international terminology was purposely ignored.

> ***Part 42: specialist maintenance** means:*
>
> *(a) for a Subpart 42.F organisation:*
>
> *(i) maintenance specified in the Part 42 Manual of Standards as **specialist** maintenance; and*
>
> *(ii) maintenance that CASA has approved in the organisation's exposition as being **specialist** maintenance for the organisation; and*
>
> *(b) for a Part 145 organisation:*
>
> *(i) maintenance specified in the Part 145 Manual of Standards as **specialist** maintenance; and*
>
> *(ii) maintenance that CASA has approved in the organisation's exposition as being **specialist** maintenance for the organisation.*

CASA has introduced "specialists" and will now dictate to industry what "specialist maintenance" is.

CASA is now involved with industrial matters. What was the safety case used to apply a unique and potentially costly "job classifications" on industry? How come CASA have become the experts in determining what maintenance tasks, which qualified persons have been performing safely for decades, are now to be treated as "**specialist**" tasks? CASA admits it does not have the expertise, this provision confirms it.

This use of improper terminology has already seen industrial issues raised in Parliament about the need for "**specialists**" that did not exist before the creation of CASRs and demonstrates the mindset of those instructing regulation drafters.

Australian industries have been multi-skilling to improve efficiency, productivity and innovation by nurturing an employee's talent so the employee feels they are being used to improve the performance of the workplace. The adoption of "**specialist**" is a retrograde step that is damaging the industrial benefits that have been attained over the last couple of decades by governments and unions working to upskill the workforce.

Urgent Corrective Action Required –

1. Replace "**specialist (maintenance)**" with "**specialised (services)**"; and
2. Remove CASA from determining who and what are **specialist** and **specialist maintenance** and restrict to determining, in consultation with industry, what is **specialised services**.

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2. What is a "Certificate of Release to Service" (CRS)?

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AMROBA looks very closely at what CASA states is a "certificate of release to service" and how others will interpret this terminology.

EASA states clearly in their documentation that their CRS does not mean the aircraft is airworthy and/or serviceable, this will not be the interpretation of our Courts or even members of a Senate Committee. The words "certificate of release to service" will be interpreted as the aircraft is airworthy and serviceable to return to service.

Most registered operators contacted are under that impression and some CASA staff interpret this partially adopted EASA CRS system as meaning the aircraft is airworthy and serviceable.

Partial copying of other regulatory systems imposes problems.

Unless another country's regulatory system is adopted completely, adopting parts of the system ensures that improper and poor wording will be applied. CASA adopted the EASR "***certificate of release to service***" (CRS) without understanding the meaning of applicable EASRs.

Firstly, you cannot "release an aircraft to service" as airworthy unless the aircraft, or parts of the aircraft being maintained, are certified as airworthy during maintenance. That is an Annex 8 requirement that is not addressed in the CASRs or relevant MoS.

EASA states that their CRS only releases the aircraft from maintenance.

Civil courts, politicians and even some CASA staff won't and don't realise this unless you read CASR Part 42 very closely and then it is debatable. EASR reaffirmed, 12/2015, the CRS is only a release from maintenance and the certificate does not mean the aircraft is airworthy or serviceable. The CASRs should make this quite clear seeing we adopted the EASRs.

Maintenance Release. This is a basic international requirement and standard that has raised more confusion simply because of the way CASA & EASA has implemented this international requirement.

ICAO definition: *A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organization's procedures manual or under an equivalent system.*

LAME Privileges: *The privileges 'shall be to certify the aircraft or parts of the aircraft as airworthy* ***after*** *maintenance and to* ***sign*** *a maintenance release* ***after*** *maintenance has been completed.*

Annex 6/Annex 1	Annex 8/Annex 1
Specifies a requirement for a signed maintenance release after maintenance is completed. LAME to sign maintenance release This is the current system. Regulations must be amended to include the Annex 8/1 certification as airworthy.	Specifies the need for a continual inspection system to ensure the aircraft, or parts of the aircraft, are airworthy after completion of maintenance. LAME is qualified to certify after maintenance that aircraft, or parts of the aircraft, is airworthy. i.e. airworthy and fit for flight.

"**Release to Service**" or "**Release from Maintenance**"

A '***document that contains a certification***' stating that specified maintenance has been completed in a satisfactory manner is not a "release to service" or, as the FAA state, "return to service". **It is only a release from maintenance**.

- Unless there are LAME certifications confirming the aircraft as airworthy, it may not be airworthy or serviceable.
- EASA states this very clearly in their documentation.
- FAR Part 43 provides all the provisions to certify aircraft and products as airworthy. CASRs do not and EASRs uses quality inspections.

In practice, there are multiple 'documents' that are used to certify completion of maintenance such as, aircraft flight technical log, aircraft or component log book, component history sheet, and the globally agreed '*Authorised Release Certificate*' for manufactured or maintained products. However CASR requires a "certificate" to be issued for aircraft maintenance.

EASA documents confirmed that "*it is important to stress that a* ***release to service, whether it is single or multiple, does not necessarily mean that the aircraft is airworthy and ready for flight. A release to service is just a release after the performance of maintenance*** *and its issuance is the responsibility of the maintenance organisation.*"

- EASA's system removes the coordination process that CASA's predecessors implemented to overcome many errors in aircraft and component maintenance and maintenance records.
- When multiple CRSs are used, who coordinates to ensure all the maintenance is performed?

Under the CASRs, an AMO no longer makes any certification or stage certification that the aircraft is airworthy or serviceable. This is part of the EASR and FAR system.

42.760 (1) A document is a certificate of release to service for an aircraft ***in relation to maintenance*** *carried out on the aircraft only if it includes the following information:*

(a) information identifying the certificate as a certificate of release to service;
(b) the aircraft's registration mark;
(c) if the maintenance was carried out by an approved maintenance organisation--the organisation's approval certificate reference number and the certification authorisation number of the employee issuing the certificate;
(d) if the maintenance was not carried out by an approved maintenance organisation--the name and aircraft engineer licence number, pilot licence number or flight engineer licence number of the individual issuing the certificate.

(2) The certificate must be included in the flight technical log for the aircraft on which the maintenance was carried out.

The regulation could be replaced by stating that the LAME must sign a release from maintenance after all the maintenance has been completed satisfactory.

REG 42.810 Form of certificate of release to service

Maintenance that is not in-house maintenance

(1) A document is a certificate of release to service for an aeronautical product in relation to maintenance:

(a) that is carried out on the product; and
(b) that is not in-house maintenance;

only if the document is in the approved form.

Note: Under regulation 11.018, a certificate of release to service in the approved form is not complete unless it contains all of the information required by the form.

In-house maintenance

(2) A document is a certificate of release to service for an aeronautical product in relation to in-house maintenance carried out on the aeronautical product only if the document is:

(a) in the approved form; or
(b) in the form of an in-house release document.

Note 1: Under regulation 11.018, a certificate of release to service in the approved form is not complete unless it contains all of the information required by the form.
Note 2: For the definition of in-house release document, see Part 1 of the Dictionary.

EASR 145.A.50(a) states the following:

"A certificate of release to service shall be issued by ***appropriately authorised certifying staff*** *on behalf of the organisation* ***when it has been verified that all maintenance ordered has been properly carried out*** *by the organisation in accordance with the procedures specified in point 145.A.70, taking into account the availability and use of the maintenance data specified in point 145.A.45* ***and that there are no non-compliances which are known to endanger flight safety****"*

When it has been verified that **all maintenance ordered** has been properly carried out is not stating the aircraft is airworthy. In addition, EASA also explains what "*there are no non-compliances which are known to endanger flight safety*" actually means.

"*The intent of this requirement is to cover those cases where the maintenance organisation, during the performance of the maintenance ordered by the operator, discovers a non-compliance which endangers flight safety. However, it is not the intent to require the maintenance organisation to find or become responsible for hidden non-compliances which are not expected to be discovered during the ordered maintenance.*"

Another misunderstanding: Instead of adopting the ICAO standards that states a maintenance release is a "certification" in a document. The CASA applied standard requires a certificate to be issued instead of a certification to be made in records.

The only conclusion that industry can come to is that those in CASA do not, or did not, understand the ramifications of poorly worded regulations and standards especially when only half the foreign system is adopted.

Recommendation: CASA must amend CASR Part 42 and include the EASA CRS interpretation that it is a "release from "ordered" maintenance" and "***does not mean that the aircraft is airworthy and ready for flight***" to clarify what CRS really means. This will give the AMO some defence against later accusations that the aircraft was not airworthy or serviceable when returned to the customer, especially under consumer laws in this country.

The term "**release/return to service**" can only be used when the LAME makes stage and final certifications that the aircraft, or part of the aircraft, is "**airworthy**" post maintenance as required by Annex 8 and 1. CAR Schedule 6 was closer to harmonisation with ICAO standards though the CARs did not clarify this international standard as did the CAOs before them. The Annex 1 LAME "certify as airworthy" privilege is applicable.

This is why ICAO terminology should have been used for clarity – "maintenance release". These words express it correctly, released from maintenance.

Both the CRS & RTS terminology used by EASA and FAA should not be used in Australia until Annex 8 certifications stating the aircraft, or parts of the aircraft, are airworthy is inserted into the regulatory system.

Corrective action required – insert EASA definition that the CRS "***does not mean the aircraft is airworthy and ready for flight***" into Part 42 to provide clarity.

Alternative Option: Adopt FAR Part 43 that requires aircraft to be certified as airworthy post specified maintenance identified in Annex 1, LAME privileges. FAR Part 43 would resurrect the Annex 8/Annex 1 airworthy standards back into the aviation regulatory system.

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3. The effect of bad terminology on AME skills.

One reason why the aviation regulatory system relating to AME skilling and licencing is not easy to understand is because it fails to adopt international standards promulgated under the Convention and comply with Government Guidelines.

Instead of harmonising with EASR Parts M, 66 & 147, CASA changed the meaning of EASR wording in the CASRs so they applied a unique system, with different LAME privileges that impacts on international harmonisation.

CASRs concentrate on the ability of the LAME to make '*maintenance certifications*' which is not an internationally recognised privilege of an AME licence holder. Maintenance certifications are normally made by "qualified persons" covering the maintenance task. Qualified means holding a VET qualification.

Comparing CASRs with ICAO international standards, the CASR LAME has less responsibilities than their EASA counterpart. Annex 8 is not even addressed.

ICAO LAME Privileges	EASR LAME Privileges	CASR LAME Privileges.
The privilege shall be to certify the aircraft or parts of the aircraft as airworthy ***after*** *maintenance and* • ***Annex 8 LAME responsibilities***	*B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required (airworthy) standard before the category C certifying staff issues the certificate of release to service.*	***Not addressed*** *(Annex 8 requirement whenever an ICAO Member State adopts a non-renewal certificate of airworthiness.)* *FAR compliant for all aspects, EASR compliant for base maintenance.*
The privilege shall be to ***sign*** *a maintenance release* ***after*** *maintenance has been completed.* • ***Annex 6 LAME responsibilities***	*2. A category B1 aircraft maintenance licence shall permit the holder to issue certificates of release to service following maintenance, including aircraft structure, powerplant and mechanical and electrical systems. Replacement of avionic line replaceable units, requiring simple tests to prove their serviceability, shall also be included in the privileges. Category B1 shall automatically include the appropriate A subcategory.* *3. A category B2 aircraft maintenance licence shall permit the holder to issue certificates of release to service following maintenance on avionic and electrical systems.*	*A person who holds a Category B1 licence endorsed with a subcategory may issue a certificate of release to service for aircraft covered by a subcategory endorsed on the licence, after maintenance of the aircraft, if the maintenance was not base maintenance carried out on a large aircraft;* *A person who holds a Category B2 licence may issue a certificate of release to service for aircraft covered by the licence if the maintenance was not base maintenance carried out on a large aircraft.*
*"**Qualified persons**" sign maintenance tasks – the AME/AMT role and responsibilities have been ignored in CASRs.*		

In Australia, we have, or had, a well-established trade training system that provided "qualified persons" to perform and certify maintenance tasks. That trade training system in aviation has been compromised by the impact of licensing courses.

CASA failed to develop policy with the Education Department so that a once excellent trade training system was maintained and the EASR licence knowledge examination system was in addition to the trade training system, not replace the trade training system.

We no longer have trade training with added LAME responsibilities, we have a mess because the AME training and licencing that has been created under partial adoption of EASR requirements. Did the "policy makers" from different government departments and agencies consult with each other to prevent duplication and/or differing policies?

Obviously not, as the Education Department was never consulted as CASA forced parts of the EASR Part 66/147 into the system; a system that is now based fully on formal training at a CASA approved MTO for a LAME licence.

- This is not the European system and adds costs with no benefit to the community.
- Has created duplication – Education approves RTOs & CASA then approves them as MTOs. Why? CASA should only appove licence courses to prevent duplication.

Fact: There are less differences between EASR Part 66 and CAR 31 than there is between EASR Part 66 and CASR Part 66.

CASA omitted a number of provisions from EASR Part 66 that would have reduced the mayhem that is a result of a totally non-harmonised system.

This is very evident under the current airworthiness/maintenance licensing provisions.

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4. Government Guidelines & Convention Article 37

One reason why the aviation regulatory system is not easy to understand is because it fails to meet international standards promulgated under the Convention and comply with Government Guidelines. A close review of the government guidelines and Article 37 of the Convention could see a very different regulatory language being applied to the aviation system where regulations would be very minimal & standards adopted.

Government Guidelines

1. Regulation should not be the default option for policy makers: **the policy option offering the greatest net benefit** should always be the recommended option.
2. Regulation should be imposed only when it can be shown to offer an overall net benefit.
3. The cost burden of new regulation must be fully offset by reductions in existing regulatory burden.
4. Every substantive regulatory policy change must be the subject of a Regulation Impact Statement.
5. Policy makers should consult in a genuine and timely way with affected businesses, community organisations and individuals.
6. Policy makers must consult with each other to avoid creating cumulative or overlapping regulatory burdens.
7. The information upon which policy makers base their decisions must be published at the earliest opportunity.
8. Regulators must implement regulation with common sense, empathy and respect.
9. All regulation must be periodically reviewed to test its continuing relevance.
10. Policy makers must work closely with their portfolio Deregulation Units throughout the policy making process.

Convention Requirements

Article 37 Adoption of international standards and procedures

Each contracting 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.

To this end the International Civil Aviation Organization shall adopt and amend from time to time, as may be necessary, international standards and recommended practices and procedures dealing with:

a) Communications systems and air navigation aids, including ground marking;
b) Characteristics of airports and landing areas;
c) Rules of the air and air traffic control practices;
d) Licensing of operating and mechanical personnel;
e) Airworthiness of aircraft;
f) Registration and identification of aircraft;
g) Collection and exchange of meteorological information;
h) Log books;
i) Aeronautical maps and charts;
j) Customs and immigration procedures;
k) Aircraft in distress and investigation of accidents;

and such other matters concerned with the safety, regularity, and efficiency of air navigation as may from time to time appear appropriate.

The international trend is for the national aviation regulators to be empowered by law to promulgate (international) standards, procedures and organisation in relation to aircraft, personnel, etc. Exactly what the Act, since 1985, empowers CASA to do. The highest degree of uniformity means adopting ICAO standards as does the FARs or EASRs.

Terminology and manner of wording of regulations and standards can set the culture of an industry more than any misguided enforcement program. Correctly worded regulations and standards are clear and concise, i.e. understandable. Sadly, what has been produced over the last decade has raised more confusion than clarity and one of the main reasons is the failure to adopt and use international terminology and definitions. Instead, we have poorly worded regulations and standards very unique to Australia.

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