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NEWSLETTER

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1. Aircraft “Inspection” – By Who and to What Standards?

Is it time that the aviation regulatory system identified “aircraft inspection” separately from other maintenance actions as it is done in the FARs? CASA’s ageing aircraft concerns raised this as a major issue and various condition reports that AMROBA is aware of, and we know CASA also sees these reports, is clearly identifying a worsening trend instead of an improvement.

If we have a worsening trend then we have the wrong regulatory environment that is not ensuring airworthiness standards and practices are being applied at the coal face. Everyone has complained about skills & training since the introduction of CASR Part 66 but no corrective reaction yet from CASA. Does this mean that CASA believes the regulatory environment is not the “causal” problem?

The Civil Aviation Act (20AB (2)) clearly states that a person must be permitted by or under the regulations to do maintenance. Who is permitted to do aircraft inspections? What skills/qualifications should they have? We are aware of aircraft registered operators “authorising” persons that are not licenced and do not have AME trade qualifications to work on VH registered type certificated aircraft.

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Safety is reliant on approved design standards supported by approved repair and modification standards being used by skilled maintenance personnel applying only practices that have been approved.

2. Cable Inspection AD Review

Many operators have changed their flight control cables so they won’t be happy with CASA if it cancels/amends the AD that should never have been published. AMROBA Newsletter Vol. 11, Issue 3, (March 2014) available on the website, raised the approved cable inspection maintenance standard that should be applied in GA. As FAA AC 43-13-1 states, cable tensions need to be relieved to perform inspections correctly. This means every annual inspection maintenance records would require ‘*independent*’ inspections to rig and functional check flight control systems that had been inspected. As pointed out in the 2014 Newsletter, CASA’s “standard” specified in CAAP 43B-1 still has not been “harmonised” with international standards so why do CASA expect things to change?

Extending the life of cables past a manufacturer/regulator “recommended” replacement time, places the responsibility on the inspector LAME to determine, in the same manner as extending engines or any other component with a “recommended maintenance/overhaul” period, to be safe to proceed beyond the recommended period. Is it wise to make such decisions?

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Any corrosion on a cable end is cause for rejection. Even cable safety clips can cover a corrosion pit that may need a 10X magnifying glass to see.

3. Aerospace and Aviation working together

Both the aerospace and aviation industry are working together identifying the skills needs for the future. There is a common concern that the skills need to improve to provide a workforce for the future. It is clear that too much has been placed on the past and not will be the future. Australia should be a powerhouse in the India/Asia/Pacific Region providing aerospace and aviation higher education and vocational training to all in this region.

However, both the aerospace and aviation industries are concerned that the education capability within this country is not taking advantage of the growth within the Indo/Asia/Pacific Region. Aircraft, and many components, require the same hand skills in maintenance and manufacturing but both sectors have identified the lack of skills that are an outcome of the national vocational education training system. Training must return to being based on the minimum international standards. It is interesting to note in the ICAO AME Training Manual that it states: “*the standard of training recommended in this manual is intended to be sufficient for an individual to qualify for a licence*”.

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1. Aircraft “Inspection” – By Who and to What Standards?

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Adoption of FAR Part 43 would correct the lack of “inspection standards” in our requirements.

§ 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.*

Unlike current requirements that require work to be done to ‘approved maintenance data’, this FAR regulatory requirement raises the inspection standard to determine the aircraft, or part being inspected, continues to meet design and operational standards. Standards that are no longer part of the LAME training curriculum. This subject is included in the ICAO LAME training syllabi contained in Chapter 3 of the ICAO Training Manual.

How many approved SoM in Australia, outside the airlines, include “*the instructions and procedures*” to perform “*inspections*” to determine all airworthiness requirements have been addressed. CASA must adopt FAR Part 43 and their supporting ACs as they are totally compatible with US manufacturers’ manuals applicable to the majority of GA aircraft.

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Extending the life of cables past a manufacturer/regulator “recommended” replacement time, places the responsibility on the inspector LAME to determine, in the same manner as extending engines or any other component with a “recommended maintenance/overhaul” period, to be safe to proceed beyond the recommended period. Is it wise to make such decisions? AMROBA encourages its members to input to CASA Proposed AD amendments. The first reaction CASA should take to safety issues is to research the inspection standards that apply, determine whether the inspections standards are appropriate and then make a decision to enforce the inspection standards if appropriate.

In AMROBA’s opinion, the inspection standards can be confusing if one looks at the inspection standards specified in CASA’s CAAP 42B-1. If the FAA promulgated inspection standards were applied, they are appropriate and should be enforced.

AMROBA has for over a decade lobbied for this CAAP to be changed – its inspection standards are way below world standards and conflict with FAA AC43-13-1.

CAAP 42B - 6.4 All items are to be inspected for GENERAL CONDITION together with specific requirements where nominated.

6.5 The term GENERAL CONDITION includes, but is not limited to, the following:

- freedom from excessive:*
 - *leakage;*
 - *corrosion, deterioration of protective treatments;*
 - *cracking and disbonds;*
 - *deformation, wear, scoring, chafing, flat spots and fraying;*
 - *obstruction or other obvious damage; or*
 - *burning, arcing or heat damage; and*
 - *that hoses are within inspection and testing periods.*

What is “excessive”? CASA should fix their own standards.

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3. Aerospace and Aviation working together.

Both the aerospace and aviation industry are working together identifying the skills needed for the future. There is a common concern that the skills need to improve to provide a workforce for the future. It is clear that too much has been placed on the past and not what will be in the future. Australia should be a powerhouse in the India/Asia/Pacific Region providing aerospace and aviation higher education and vocational training to all in this region. However, both the aerospace and aviation industries are concerned that the education capability within this country is not taking advantage of the growth within the Indo/Asia/Pacific Region.

Aircraft, and many components, require the same hand skills in maintenance and manufacturing but both sectors have identified the lack of skills that are an outcome of the national vocational education training system.

AME training must return to being based on the minimum international standards. It is interesting to note in the ICAO AME Training Manual it states: “*the standard of training recommended in this manual is intended to be sufficient for an individual to qualify for a licence*”.

This is what everyone wants, all CASA has to confirm is the AME working experience meets regulatory requirements that should be specified in Part 66 as it is in EASR Part 66.

CASA’s Executive must produce a “policy statement” stating that AME training will meet the minimum training standards specified in the ICAO AME training manual for licensed and unlicensed AMEs, including course duration and theoretical/practical training hours split. This meets Article 37, Adoption of international standards and procedures, of the Convention.

This training would underpin the AME licences and ratings included in Part 66 as a result of the PIR. The Education Department is also committed to implement international training standards, course duration and split that CASA promulgates.

The difference in EASR Part 66 is it splits the B1 licences between turbine/piston engines, whereas AMROBA supports the difference between transport category (Part 25/29) and other categories and kinds of aircraft. B1.1/B1.3 for “transport” category aeroplanes/helicopters with specific aircraft ratings and B1.2/B1.4 for other aeroplanes/helicopters with group ratings already agreed with CASA. AMROBA recommends adopting the new Part 23 “normal” category up to 19 seats and 5180Kgs for the future to be covered by group ratings as it was originally under CAR 31. Aircraft above 5700Kg but less than 5180Kg manufacturer’s pilot engineering course should also be accessed by LAMEs holding group ratings covering the aeroplane.

B2 avionics would have specific aircraft ratings for transport category aircraft and system group ratings as has been already agreed with CASA.

In addition, linking the licence to aircraft type certification standards enables the LAME to “certify the aircraft or parts of the aircraft as airworthy”.

LAME specific subjects are contained in Chapter 3 of the ICAO AME Training Manual.

It is time for radical change in how training is provided. On-line providers are used by over 70% of AMEs obtaining licences in the European system.

We need a basic skill training course to teach the practical skills associated with the trade.

This should be followed by complete on-line training providers addressing the knowledge elements of the mechanical and avionic elements of the training package tested by examinations with 75% pass marks to replace Basic Exams provided by CASA.

We must lobby the Education System to provide on-line training providers.

Adoption of EASR Part 66 regulatory experience requirements will be checked when an applicant applies for a licence/rating to CASA. As long the applicant holds the applicable academic qualification then he/she will be acceptable.

The number of apprentices and adults undertaking AME training is small compared to other trades and changing to colleges that provide practical skill training and on-line knowledge training providers might mean some of the current training organisations may not exist in a modernised training environment.

Webinar training can also be provided by on-line training providers.

Universities are well placed to provide on-line training, including using webinar capabilities.

If and when CASA promulgates a “Policy Statement” committing to once again adopting the ICAO minimum international training standards for AMEs and LAMEs, then the Aerospace Industry Reference Committee can direct its Skills Service Organisation to develop training packages, based on the ICAO standards that would underpin the B1.1, B1.2, B1.3, B1.4 and B2 licences and associated “group” ratings.

How long does it take CASA to adopt corrective action to fix the problems they created?

Why can’t the training be approached more practically? Time to come out of the dark ages.

Practical trade skill training can be performed by any college that can meet the ICAO practical skill training – some practical skills should be obtained before working on aircraft.

Once practical skill competencies have been obtained, the knowledge elements promulgated by ICAO can all be provided by on-line providers. This would keep costs down, especially for rural trainees, and can include webinar elements.

Examinations of knowledge elements to be the responsibility of CASA who may out-source the examinations to an approved third party. This aspect must also look at examination on-line as is now done in so many para-professional jobs.

When the marine industry was confronted with the same situation it created a single training facility in Launceston. AMROBA does not believe we are in the same position as the marine industry was but we are getting close.

Australia has been aware of the potential growth in aviation in the Indo/Asia/Pacific Region and the need to harmonise training, especially in the airline sector, with international training standards. The introduction of CASR Part 66 and Part 147 have put Australia at a disadvantage by not adopting international AME/LAME training standards.

Europe does not have a GA industry like Australia had so their “group” ratings were never capable of replacing the CAR 31 group ratings.

Change will not happen until CASA commits to adopting international AME/LAME training standards as promulgated by ICAO and as implemented for example, by EASA.

1. CASA promulgate Policy Statement.
2. Aerospace IRC directs SSO to create AME training packages (practical and on-line knowledge) based on ICAO minimum training packages to support both avionic and mechanical streams.
3. Aerospace IRC direct SSO to create additional training packages (knowledge), based on ICAO training in Chapter 3, associated with each licence (B1.1, B1.2, B1.3, B1.4 and B2). Aircraft type specific training & ratings no change.

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