

AMROBA[®]inc

ADVOCATE OF THE AVIATION MRO INDUSTRY

<p>Newsletter Date 02/09/2014</p>	<p>Aircraft RO Responsibilities</p>	<p>Volume 11, Issue 09 September – 2014</p>
<p>Back in 1991, the regulations were changed so the AMO/LAME could no longer “inspect the aircraft to the depth necessary” every 3 years to certify the aircraft as airworthy just like the FAA A&P/IA does annually.</p> <p>The legislation does not allow the AMO/LAME to do any maintenance NOT authorised by the aircraft registered operator (RO), etc. That ‘right’ was removed in 1991.</p> <p>In addition, CASA seems to have forgotten to use ADs to address unsafe situations, CASR Part 39 ADs.</p> <p>In frustration, AMOs are sometimes targeted by CASA for what are RO responsibilities.</p> <p>CASA should exercise their safety obligations when they are aware that there are unsafe matters. For example, did CASA waste a lot of money advising operators of the dangers of corrosion and fatigue in older aircraft.</p> <p>They are totally aware of the aging corrosion issue; what manufacturers’ recommend, but what have they done? If CASA is aware that there is a safety problem then they have a regulatory obligation & methods to address the safety concern. If ROs have not, in their opinion, maintenance schedules/system of maintenance that are efficient or effective, then they need to take action to address the unsafe situation.</p> <p>They can direct action to be taken to fix a safety problem either individually or collectively. ADs are something the RO cannot ignore and neither is a CAR 38 direction.</p> <p>This has been highlighted recently by manufacturers like Cessna’s Supplemental Inspection programs. If an “annual” inspection is elected, are SIDs mandatory.</p> <p>If CASA believes that aircraft are unsafe unless they include these additional manufacturers’ inspections, then CASA must take regulatory action to correct the perceived unsafe situation.</p> <p>Past experience has proven that our judicial system supports compliance with aircraft & aircraft component manufacturers’ data to be complied with unless analysed and determined not applicable.</p> <p>The onus is not on the AMO/LAME to decide this.</p> <p>CASA however, should take appropriate action if they become aware that aircraft are unsafe because ‘safety’ requirements promulgated by the aircraft and/or aircraft component manufacturers have not been included in the Log Book Statement.</p> <p>In the distant past, CASA would issue an AD. This option is still available to CASA. The MRO industry option is a return of 3 year major concepts.</p>	<p>Still, many aircraft are maintained very well and do not have a corrosion problem. Therefore, if it is not a fleet wide issue, then what other action should CASA take. The Act states when CASA exercises its powers it must regard safety as the most important consideration.</p> <p><u>38 Maintenance directions</u></p> <ol style="list-style-type: none"> (1) CASA may give directions relating to the maintenance of Australian aircraft for the purpose of ensuring the safety of air navigation. (2) <u>A direction is not binding on a person unless it has been served on the person.</u> (3) A person must not contravene a direction that is binding on the person. (4) If a direction relating to an aircraft is binding on the holder of the certificate of registration for the aircraft, the holder must take reasonable steps to ensure the direction is brought to the attention of any person who is likely to fly, or issue a maintenance release for, the aircraft. <p><u>42K System of maintenance: submission to CASA</u></p> <p>CASA may, under <u>regulation 38</u>, direct the holder of the certificate of registration (RO) for a class B aircraft:</p> <ol style="list-style-type: none"> (a) to develop a system of maintenance for the aircraft; and (b) to submit the proposed system to CASA for approval. <p>Also <u>CAR 42Q - CASA may direct changes (amend SoM)</u></p> <p>CASA continues to stand back and allude how unsafe aged GA aircraft are but we have yet to see CASA issue an AD or multiple CAR 38 maintenance directions to ROs.</p> <p>If CASA believes current maintenance schedules or system of maintenance are deficient or ineffective, and that is the impression that they give us, then they have an safety obligation to direct changes to the schedules or system of maintenance OR direct an RO using an elected maintenance schedule to submit a system of maintenance. If they do this, CASA will be a safety regulator.</p> <p>However, many ROs of these aircraft believe their elected maintenance schedules are effective and efficient because they have not brought any deficiencies to the notice of CASA or an ‘authorised person’ within the 7 days.</p> <p>Remember, post 1991, the regulations purposely limited the AMO/LAME to only performing maintenance that the RO (PiC/operator) authorises. If the RO does not “authorise” the AMO/LAME to perform the maintenance, then the AMO/LAME must be aware of CAR 43(7)(a) when signing the maintenance release. Catch 22.</p> <p>The removal of the 3 year major inspection that was the same as the FAA A&P/IA annual inspection, but done once every three years, is probably the major reason why CASA and many AMOs are finding aircraft that have serious corrosion problems. Adopt the FAR GA system.</p>	

MOTTO: SAFETY ALL AROUND

GA LAME NPRM

CASA is proposing a new NPRM for the GA LAME. The proposal will return new 'group' ratings to the B1/2 current system that are based on refinements to the past rating system under CAO 100.90 series.

It has always been obvious to AMOs that the CAR 31 AME licence ratings was the best licence system for Australia. Eventually, we hope included in CASR Part 66 is the flexibility that exists in EASR Part 66, re self study, etc.

Basically, the draft NPRM that we have previewed, is not compatible with the CARs. As it stands it is not acceptable. We have brought that to the notice of CASA so we hope the NPRM is adjusted before publication.

CAR, 1988 LAMEs (Schedule 6) sign for the completion of maintenance and stages of maintenance not every maintenance task as specified in CASR Part 42.

The proposed structure of the new ratings will remove the "exclusion" concept adopted in Part 66.

The 'basic' GA aircraft will be covered by the "small" aircraft rating and additional ratings, similar to past CAO 100.90 ratings but refined by inputs mainly from AEA, AL-AEA and AMROBA.

We were aware that the old ratings needed refining to address new technologies and the outcome may need further refinement once put into practice. This can be achieved by small adjustments to the competencies associated with each rating.

One of the most important issues that many AMOs requested was the ability to enable competent staff that have not completed their training to sign for the completion of maintenance they perform.

This has been achieved by adopting the Canadian "Elementary" maintenance tasks that includes pilot maintenance. This will mean that a 2 year apprentice will have achieved competencies to be issued with a licence limited to these "elementary" maintenance tasks.

This will also encourage apprentices to complete their training and obtain a "Basic" B1/B2 licence.

As part of the training agreed by the AMO and RTO, some of the ratings may be attained during initial training. Additional 'ratings' for the B1 "small aircraft" LAME will include, for example:

- a. *Hydraulic Systems*
- b. *Oxygen Systems*
- c. *Air-conditioning Systems*
- d. *Propeller Systems*
- e. *Turbine System*
- f. *Pressurisation Systems*
- g. *Electrical—Landing Gear*
- h. *Electrical—Multi generators*

For a B2 basic licence ratings:

- a. *Instruments—glass cockpit*
- b. *Inst—FDRs*
- c. *Inst—Oxygen Systems*
- d. *Autopilot & FCS aeroplanes*
- e. *Autopilot and FCS helicopters*
- f. *Radio systems—Com 2 & HF*
- g. *Radar: ADSB, Rad Alt, DME, Transponder & TCAS*
- h. *weather radar systems*
- i. *CVR systems*
- j. *radio interface, ACARS, SELCAL, INS, IRS, Compass, FMS, ADF, VOR, ILS, Marker Beacon, Sat Nav (GPS and GNSS)*
- k. *retractable undercarriage*
- l. *multi generator rating*

Like all NPRMs, we expect there will be issues to comment on and AMROBA will do an analysis of the final published document even though we have had the benefit of a review prior to the issue of the NPRM.

Basically, this is an attempt by CASA to return to a system that was proven and should never have been abolished now that we know we do not have the EASA Part 66 system.

The only reason for change was to meet the needs of the airlines for a Class A line maintenance rating that was possible under CAR 31. Happy reading, it is a large NPRM.

FIRE Extinguisher Training

Having spent time reviewing the Ozone legislation, the LAME exemption is spelt out in their legislation:

- (1) On or after 1 November 2005, a person must not handle an extinguishing agent that is, or has been, for use in fire protection equipment unless he or she holds:
 - (a) an extinguishing agent handling licence; or
 - (b) a special circumstances exemption that covers the handling of the agent.Penalty: 10 penalty units.
- (1A) Subregulation (1) does not apply to a person if:
 - (a) the fire protection equipment is or will be installed in an aircraft; and
 - (b) the person handles the equipment for the purpose of installing or removing the equipment; and
 - (c) the person:
 - (i) is, under Part 66 of the *Civil Aviation Safety Regulations 1998* (which is about aircraft engineer licences), a category A licence holder, a category B1 licence holder or a category B2 licence holder; and
 - (ii) has achieved the unit of competency CPPFES2043A Prevent ozone depleting substance and synthetic greenhouse gas emissions.

Note: A defendant bears an evidential burden in relation to the matters in subregulation (1A)—see subsection 13.3(3) of the Criminal Code.

- (2) For subregulation (1), **handle an extinguishing agent** means to do anything with the extinguishing agent (other than use it to prevent, control or extinguish a fire, or suppress an explosion) that carries the risk of its emission, including:
 - (a) decanting the extinguishing agent; or
 - (b) installing or maintaining fire protection equipment; or
 - (c) decommissioning or disposing of fire protection equipment.
- (3) An offence against subregulation (1) is an offence of strict liability

There is a list of RTOs that will provide "unit of competency CPPFES2043A", some will do it as distance learning. There is no reason why all LAMEs cannot obtain this competency. It has been included in future MEA competencies

AFM Supplements

Why is there confusion when deciding if an AFM Supplement is needed post modifications. What is the purpose of an AFM (POH) is the first question — “to provide the pilot with normal and emergency operational procedures and limitations to fly the aircraft”.

Some old aircraft only had markings, some only had a POH. No provision existed for AFMs for aircraft certified in normal or aerobatics categories under CAR 04/4a. Since March 1979, all aircraft had to have an AFM.

Besides AFM Supplements approved by the NAA, supplemental operating and performance information which has not been formally approved is usually provided by the manufacturer; sometimes as ‘Supplements’ but also known as ‘equipment owner manuals’.

From time to time, there is discussion what Supplements should be in a POH/AFM. Early POHs/AFMs did not include much information relating to com/nav equipment fitted. In many cases, standard com/nav equipment (e.g. ADF) is not even mentioned in the AFM. Are they required to operate the aircraft safely? — not really.

The AFM is a document developed by the manufacturer and approved by the NAA. The AFM contains information & instructions **required to operate an aircraft safely**.

The FAA states: *The Supplements section contains information necessary to safely and efficiently **operate the aircraft** when equipped with optional systems and equipment (not provided with the standard aircraft).*

Some of this information may be supplied by the aircraft manufacturer or by the manufacturer of the optional equipment. The appropriate information is inserted into the flight manual at the time the equipment is installed.

Autopilots, navigation systems, and air-conditioning systems are examples of equipment described in this section.

Since civilian manuals are not updated to the extent of military manuals, the pilot must learn to read the supplements after determining what equipment is installed and amend their daily use checklists to integrate the supplemental instructions and procedures.

General Aviation aircraft AFMs are not as prescriptive as operators’ operating manuals. FAR 23.1581 — 1589 includes what must be in an AFM, and standard com/nav equipment is not mentioned.

Supplements are inserted to provide the pilot with information to operate added optional equipment from the manufacturer of the aircraft or component installed as part of a modification to the aircraft.

Supplements for equipment already installed in a standard aircraft by the manufacturer, such as basic comm/nav equipment, have not been seen as necessary by the manufacturer and the certifying NAA—mainly the FAA.

Comm/nav equipment in a VFR aircraft is not seen by manufacturers as needing a Supplement but requiring post Supplements that would not be required by the aircraft’s certifying NAA needs further discussion with CASA.

Safety Culture—An industry on its own

MRO registered businesses understand SMS requirements a lot better than CASA or WHS. Under the WHS legislation there is a need for SMS to reduce OH&S risks. What we cannot understand is why the Mining Industry, that also requires an SMS, can combine their SMS and WHS SMS into a single government acceptable document.

Why doesn’t CASA and WHS sit together to create a template for a single SMS instead of MRO businesses needing two documents. In practice, small business does this.

WHS states: *A company’s safety culture results from a combination of workplace characteristics, such as:*

- *Practices that are considered normal behaviour*
- *Production and bottom line pressures*
- *Action or lack of action taken to correct unsafe behavior in the past*
- *Policies and procedures and how they are enforced*
- *Management and employee attitudes toward safety*
- *Workplace values, stories and myths*
- *Management and employee assumptions and beliefs*
- *Workplace priorities, responsibilities and accountability*
- *Types, content and the emphasis placed on training*

When there is a strong safety culture, everyone feels responsible for safety and everyone pursues it daily.

Governments place great expectations of organisational procedural matters and risk management. In many cases,

the failure to empower staff and provide them with knowledge and skills to understand the environment they are working in prevents nurturing the safety culture.

How does CASA know that there is a “safety culture” in an organisation besides reviewing a documented trail that gives the impression that it exists?

Aviation safety requires the industry to maintain a SMS that is above the minimum maintenance regulatory requirements. However, safety cannot be legislated into the system. Safety cannot be imposed by strict enforcement.

Safety culture is a state of mind that all participants in the industry must nurture and implement to improve reliability, productivity, competitiveness and trust.

Safety improvements can only be implemented by people at all levels within a business. It is not the responsibility of one but it is of all.

Aircraft and components require every person performing maintenance and associated tasks to be safety conscious. How many incidents are prevented by dedicated maintenance staff that ‘notice’ a defect even though the person is not doing tasks in that location. Safety is enhanced when that person has no fear of reporting what he has found.

This does not just apply to the aircraft or component being worked on, it also applies to the tooling, equipment and facilities where the person is working.

When a safety culture is effective, incidents involving human controllable errors are reduced.

Calendar Periods 'and'

* Become a Member *

The adage "there is strength in numbers" is absolutely true when it comes to influencing government regulations and policy. No one company, no matter how big or successful, can keep up on all the regulatory issues directly impacting businesses.

AMROBA is dedicated to serving the businesses that are responsible for the in-service continuing airworthiness of aircraft and aeronautical products, including the manufacture of replacement parts for in-service aircraft. This segment of the industry has never had a dedicated advocate until now.

AMROBA membership form is available from the AMROBA website: <http://amroba.org.au/become-a-member/>

print the membership form http://amroba.org.au/images/docs/AMROBA_Membership_Application.pdf



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It is time for CASA to repeal unique safety requirements that restrict or extend manufacturer's time limits.

The CAA(UK), in 2007, repealed unique fatigue requirements still retained by CASA. CASA still has AD requirements that exclude manufacturers' calendar periods from being complied with.

The manufacturers' maintenance manual or instructions for continuing airworthiness contain overhaul intervals for components, typically referred to as Time Between Overhauls (TBO), which should be taken into account when the RO elects his/her maintenance schedule or system of maintenance.

Under CASA promulgated requirements, the RO is not compelled to take into consideration manufacturer TBOs if an AD specifies different TBOs.

TBO values established by the design approval holder (DAH) should apply. TBOs included in the Airworthiness Limitations Section or otherwise mandated by the NAA responsible for the DAH cannot be deviated from. TBOs are normally defined in terms of calendar time and/or operating or flight hours/cycles/landings, **whichever occurs first.**

Intervals proposed by the DAH as TBOs may be different for different variants of the component and for components with changes or service bulletins embodied.

Most GA aircraft ROs can extend manufacturer's "recommended" TBOs if the AMO/LAME has or is given a procedure by the RO to verify the condition of the component. CASA's predecessor once had internal criteria that enabled local

CASA field staff to extend these recommended periods up to 20% of the recommended period. These extensions were also based on utilisation — low utilisation was a reason not to extend.

Even EASA recognised in NPA 2011-15 that, with the proper procedure to inspect the serviceability of the aircraft or product, there is a possibility of extensions of 20 % of the original TBO provided that the conditions for these extensions are satisfied.

But, over the last decade many manufacturers have introduced or amended (reduced) calendar TBOs.

Considering the airworthiness of a manufacturer's product is the responsibility of the DAH, we find it hard to understand why CASA will not repeal unique ADs that ignores the manufacturers' promulgated recommended TBOs.

The 'continuing airworthiness standard' promulgated by CASA in ADs, CAAPs and other advisory material is below the standards applied by the NAA responsible for the DAH.

The majority of GA aircraft are FAA certificated so these aircraft should be maintained to the FAR standards.

This was last applied pre 1991 but subsequent application of unique CASA standards have not kept pace with the changes imposed by NAAs responsible for the DAHs & DAH's TBOs.

CASA should stop raising "safety concerns" and spend some time removing unique requirements that prevent FAR standards for FAA certificated aircraft & products and other NAA DAH standards for their manufactured aircraft/products.

The Aircraft Maintenance Engineers/Technician Creed

Worth Remembering

"UPON MY HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a qualified aircraft maintenance engineer/technician. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.

IN DISCHARGING this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge nor shall I allow any non qualified superior to persuade me to approve aircraft or equipment as airworthy against my better judgment, nor shall I permit my judgment to be influenced by money or other personal gain, nor shall I pass as airworthy aircraft or equipment about which I am in doubt either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.

I REALIZE the grave responsibility which is mine as a qualified aircraft maintenance engineer/technician, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation."