

AMROBA[®]inc

ADVOCATE OF THE AVIATION MRO INDUSTRY

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Aviation's Important Role During Emergencies

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Australia is a country that floods and burns on a regular basis and, even with the best planning and preventative actions being taken by governments, the aviation industry know that floods and fires will always be a threat and their services will be required.

Whenever this country faces natural disasters like floods and the current bushfires, aviation quietly slips into action providing helicopters and fixed wing aircraft. Aviation plays a crucial part in the emergency management of floods, fires and other disasters.

The planning and use of aircraft have been accentuated since a number of "disaster" bushfires in Australia that include:

- Victoria, 2009 in which 173 lives were lost. This is now referred to as Black Saturday.
- South Australia and Victoria, 1983, which claimed 76 lives and was named Ash Wednesday.
- Southern Victoria, 1969, when 23 people lost their lives.
- New South Wales, 1968, in the Blue Mountains and coastal region, where 14 lives were lost.
- Hobart and Southern Tasmania, 1967, where 62 people perished.
- Victoria, 1939, known as Black Friday, when 71 lives were lost.

Add to that list the floods in most eastern states, the recent fires in Tasmania and now an early fire season, the real value of aviation once again prevails.

These disasters demonstrate why airstrips and airports across the country must be retained. They are essential during natural disasters as well as other essential services.

Behind the scenes, not shown on television is the State's Incident Control System (ICS) and their Air Operations Manager. Normally only

required at large fires or floods, they are responsible for overall coordination of air and air support activities and for ensuring that the air operation properly services the fire suppression strategy.

There is also an aircraft officer position in the State's ICS responsible for ground operations and overall provision of support, enabling a safe and efficient air operation to be conducted.

There are many examples where aircraft are used effectively to help ground crews and protect property, crews and/or people relocating to fire risk areas. There are examples of aircraft extinguishing spot fires ahead of a main fire, giving people more time to evacuate ahead of the fire.

Aircraft also carry out reconnaissance, informing ground crews of spot fires, and providing a platform for firefighters to observe fire conditions and obtain intelligence for fire operations.

Aircraft are not the panacea to fighting bushfires. They are used collaboratively with ground crews to ensure an efficient and effective outcome. Aircraft are expensive so consideration is given to the effective benefit versus cost.

Behind these operating aircraft is a plethora of people maintaining the aircraft. Logistic controllers ensuring that all materials and personnel are available.

Many of these aircraft are operating away from their home base so the co-operation with other AMOs is paramount to the success of keeping these aircraft airborne.

Though many of these AMOs may be trade competitors during normal times, during times of disaster, everyone cooperates and aircraft are kept airworthy. Well Done.

What Makes a Competent LAME

Is it hand skills, knowledge or attitude?

If we look back at the training system that served the non airline sector for many decades, there is no doubt that LAMEs had good hand skills, knowledge and safety attitude.

But, where did they get the knowledge, hand skills or safety attitude from?

Did they get the knowledge from attending a training establishment or did they get it from their supervising LAME or did they get it from self study?

Or, was it a combination of the above.

From an employer position, all that was wanted was CASA examinations be used by the Recognised Training Organisation (RTO) so apprentices/trainees did not have to pass both the RTO exams and CASA Basics.

Some TAFE colleges actually applied for the CASA Basics instead of using their own exams. However, CASR Part 66/147 has undone what was a very successful skill training system supported by employers.

The real reason why the previous system worked so well is that the apprentice/trainee was educated better by the employer.

Employers relied on the RTOs to provide the knowledge and minimum hand skills so that the student was nurtured by the employer.

The regulatory system accepted that there was a trade training system. CAR30 placed the responsibility on the employer to employ “qualified” persons to do the work.

If you end up in a court case, you will soon learn that “qualified” means holding formal qualifications (if they are available in the industry). The AME is a trade qualification.

You could also employ a person with other specific “qualifications” if you needed them.

This has been muddied by CASA becoming involved with the trade skilling system that underpins the AME licence.

Unlike EASRs, there is only one option in CASRs and that is formal training. EASRs allow self study to sit examinations by a CAA, just like the Basics examinations by CASA.

Except for the real basic skills that can be learned at RTOs, the finesse of the skills and knowledge are learnt on the job. We all remember how hard our first LAME supervisor was and how they were so pedantic.

However, that strict supervision and high standards demanded also developed the safety attitude that is important. It is this close attention in the early days that creates the practical skills and attitudes that gives us a safe industry. Regulatory change is needed to get back what worked.

Schedule 5 — CASA CAAP42B-1

If you carry out a comparison with the manufacturer’s maintenance schedule, then most older aircraft are better off using Schedule 5.

The requirements still require you to use the “how-to” instructions promulgated by the manufacturer, etc. What makes Schedule 5 a problem is CASA’s own advisory material.

CAAP 42B-1 states the aircraft must have a thorough functional and visual check of the nominated system, component, assembly and/or installation. All items are to be inspected for GENERAL CONDITION.

The real differences is that in adopting the FAR “annual” inspection, CASA did not require the aircraft to have “detailed inspec-

tion” as it must in the US by an A&P with IA.

The CAAP states the ‘general condition’ of the aircraft means it is **free 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;

What is “**excessive**”? We have asked CASA.

The IA under the FARs must disassemble the aircraft to the depth necessary to inspect the airframe — why are we different?

Webinar Training

Rural Australia should embrace distant learning to cut costs and provide employer supported training process. How many CASA approved RTOs are needed to provide this type of training to our rural AMOs?

Many employers feel they need more direct supervision of the training being undertaken by their apprentices/trainees and one way is to utilise distant learning technologies. Distance learning allows you to learn from home or work – without commuting.

Today, you can earn just about any degree online from colleges and universities across Australia. They may use 'webinars' to provide tutor/student interface.

Webinars are live, online learning events in which students can obtain information or expertise on a topic, and have the ability to comment or ask questions in real time. Webinars have the flexibility to be done cost efficiently for a small audience, as well as for large audiences. A Webinar is considered a form of web-based training, distance learning, and virtual training.

Using the latest technology to help students learn, distance learning stimulates you in ways a simple lecture can't.

It is interactive, engaging and effective. For example, you can pull up a streaming video, sit in a virtual classroom, collaborate on a group project, listen to a podcast, take part in a discussion board or chat group, e-mail your fellow classmates, or instant message your tutor whilst still at his work place.

It is recognised that no one web conferencing tool can currently meet the needs of all users and/or levels of connectivity. REACT, Adobe Connect and Bridgit are some of the web conferencing tools that are used. More and more web conferencing apps can run on desktop and laptop computers as well as many mobile devices. (Direct link)

The technology is there to be used.

Benefits to a rural organisation is productivity and by training a local who is more likely to be retained by the organisation. Retention of employees is an issue in our industry.

Government funding may be needed to initially set up technical RTOs. However, many education establishments already have the capability and utilise it regularly at schools.

It is time we used this technology in our high technology industry to bring modern training methods to rural Australia.

Follow the Procedures

CASA's regulatory oversight is important in providing the public confidence in the safety of aircraft operations. To achieve this, they have promulgated a surveillance and Enforcement Manual.

The people they survey are expected to operate in a very rigid regime. It is a pity they do not apply the same rigor to their own staff.

CASA is charged with implementing effective enforcement strategies to secure compliance with aviation safety standards.

CASA's surveillance policy is available on their website under policy notices.

Purpose: Surveillance assesses an authorisation holder's ability to manage its safety risks and willingness to comply with applicable legislative obligations.

Does CASA identify a holder's 'willingness' to comply with the rules?

CASA places priorities on Enforcement actions in their manual:

- *Assisting* the industry to comply, generally and on an individual basis
- Encouraging or exhorting compliance
- *Compelling* compliance
- *Penalising* and *detering* non-compliance.

CASA endeavours to bring about compliance with legislative requirements and optimal safety outcomes by assisting the industry through general and more specifically targeted *safety promotion* and *educational activities*, and through the *advice* CASA provides on operational and technical matters to individual pilots, engineers and operators. CASA also acts to encourage or exhort authorisation holders to comply and to conduct their activities at a high level of safety through the *counselling* process and by recommending *remedial training*.

Many wish CASA would follow their own procedures when surveilling or enforcing.

* 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/index.php/download/file/view/15/>



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Importance of Coordination

We don't all have planning departments or maintenance task cards supporting our maintenance functions.

Coordination was introduced into the aviation system to ensure that all certifications for completion of maintenance had been made prior to return to service and a certification did not nullify a previous certification.

So what is meant by nullifying a previous certification. Even in an airline controlled maintenance system, installation of a replacement part may nullify a previous certification made to meet an AD or modification installed.

A SB may fit a different part number item to an aircraft to improve safety but the IPC is not updated by the manufacturer. Post certifying for the modification, a defect occurs to the replacement part and it is changed by using the original part in the IPC. The aircraft has been fully or partially de-modified. In some cases, this has reduced the safety of the aircraft by changing the part.

In addition, during base maintenance, work may be completed on a system and all functional checks carried out. During final engine run checks a system defect is identified and rectification is undertaken. That rectification affected the sign-off of the operational and functional checks. The coordinator needs to be vigilant to recognise that the affected operational or functional check will once again need to be performed to verify system serviceability.

The final coordinator has the role to monitor all categories of work to ensure the aircraft is returned safely to the operator.

Coordinators and final coordinator are also relied on, outside major airlines, to identify future maintenance requirements that have been introduced during maintenance. Though unwritten, the coordinator has a duty of care to inform the aircraft's registered operator of the introduced maintenance requirements.

The failure to include these additional maintenance requirements in the aircraft's maintenance schedules means there is a high possibility of required maintenance being missed.

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."