

AMROBA[®]inc

ADVOCATE OF THE AVIATION MRO INDUSTRY

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Government Aviation Databases

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Stop Press

- Employer associations meet and agree on actions that need to be taken to improve the aviation infrastructure
- The Australian Aviation Associations Forum (TAAAF) will continue to meet regularly and work to improve political awareness of the plight of the industry.
- There is general agreement that Australia's aviation infrastructure is not world class.
- Very little improvement has been made to the aviation infrastructure over the last couple of decades.

Databases are important in providing government and its agencies with **factual** data that can clearly identify the health and the trends of the aviation industry.

CASA's *Annual Report*, ATSB's '*Australian Aviation Safety in Review: 1998 to 2007*', plus a number of other reports from BTRE, etc, makes one ask how this data is, or should be used to underpin the infrastructure for growth.

Too often this data is used to provide statistical data to government and other bodies as grounds to create legislation to provide additional punitive provisions to improve "safety". But does it?

There are some startling facts contained within these databases that should focus our members on the health of the industry as well as aircraft condition and safety.

For instance, it is interesting to note that 5% of the civil aircraft fleet are large aircraft (i.e. > 5700Kg) whilst 65% were small aircraft (< 5700Kg). Another 1429 (i.e. approx 10%) sport aircraft (including amateur built, balloons and gliders) are on CASA's register.

However, there are the negative facts in these reports that will impact on the growing success for aviation.

AMROBA MEMBERSHIP UPDATE

AMROBA continues to grow and participate in appropriate aviation committees. We need you.

AMROBA's long term survival depends on MRO industry support. A minimum of 300 AMROBA members are required to make us financially viable but 500 to 1000 members is our aim.

If you are not a member access our website www.amroba.org.au for details of AMROBA and membership application.

We are registered as a non-profit organisation with a Management Team representing each segment of the aviation industry.

Membership growth continues to grow but many still sit on the fence collecting the benefits that AMROBA brings to the MRO industry. It is time for you to join — there is strength in numbers.

Complete an application and join now. www.amroba.org.au

When comparing 2006/2007 to 2008/2009, the number of AOCs **declined by 94** in non-airline operations. In other words, 88% of the number of GA type AOCs now exists. However, airline AOCs **increased by 9 to 41**.

In contrast, during the same period, 77% of AMOs providing airline support now exist while 95% of AMOs servicing the non-airline sector exist.

67% of aircraft are piston powered and 3% are jet powered — the rest are turboprop/shaft aircraft.

From 1985 to 2009, the number of aircraft on the CASA register has doubled **but** the annual non airline sector total flying hours **has slightly decreased**.

Basically, there is factual evidence that the use of aircraft as a mode of transport in other than the major/regional airline sectors, is decreasing.

An in-depth analysis of the reasons why this is happening should be done.

Though we all know why there has been a decline in average hours/annum flown in the non-airline sector, excluding helicopter operations, **nothing will happen until there is a government review team created to state the obvious.**

Aircraft Maintenance Skills Future Outcomes Required

CASA Annual Report

“Bilateral agreements & arrangements

Bilateral aviation safety agreement aim to reduce regulatory duplication & prove greater market access for Australian manufacturers. CASA progressed a number of such arrangements during 2008-2009.”

When will we see maintenance included in these agreements and when will we see them come into effect.

Every year adds more countries and NAAs not recognising CASA approved businesses.

ATSB Safety Report.

“Over the last 10 years, with the exception of the ATPL, there has been a decline in the number of fixed-wing pilot licences held, particularly PPL & SPLPAX licences.

Since 1998, the total fixed wing licences have fallen from 35.4K to 30.8K in 2007.

On the other hand, there has been a growth in the number of pilots flying rotary-wing aircraft. Commercial helicopter pilot licences, CP(H)LS, have risen from 1,236 in 1998 to almost 1600 in 2007.”

This does not equate with the fact that aircraft registrations have almost doubled in that period.

This subject is of great importance to the future of the aviation MRO industry as we come to identify these issues that have negative impacts on future growth.

With 5% of aircraft on CASA’s register greater than 5700Kgs, the maintenance personnel support for these aircraft is about 50% of all maintenance personnel required in Australia.

The base training for the Air Transport (AT) and non-AT maintenance engineer is now very different — flexibility of the AME workforce is changing.

Airline maintenance personnel work in an environment where they are fully supported by an organisation’s administrative and management structures.

However, is the training applicable to the future environment that will be required for new technology aircraft.

Based on CASA databases, the level of new LAMEs entering the workforce is also decreasing over the last decade.

In the past, this has happened as new technology aircraft enter into service.

New aircraft are more reliable thus extending maintenance visit intervals with a resultant drop in the number of LAMEs.

Considering that the airlines employ about 50% of all maintenance personnel it could be argued that this natural decline is a result of new technology.

However, the growth of the airline sector should off-set this natural reduction.

With airline maintenance personnel skills now differing from the non-airline sector, there is less chance of an airline LAME taking up employment in the non-airline sector because of the costs of re-training.

Basically, the non-airline sector needs AMEs with FAA A&P mechanic skills whereas the airline segment needs higher IT skills to interrogate the new aircraft computerised maintenance systems.

It is time for a national review of what has been rushed through in anticipation of very large aircraft.

The other aspects for a small workforce is delivery of training — is it also time for consolidation of training resources?

AME Training—Role of MSA

Manufacturing Skill Australia (MSA) is aviation’s maintenance national education skill council that develops and promulgates training skill competencies.

MSA has and is providing the industry with the tools to meet future skill needs by identifying pathways through the National Aerospace Industry Competency Standards to achieve qualifications.

What seems to be missing is the link between Trade Recognition Authorities and these MSA identified pathways.

What will improve the maintenance training in the non airline segment is for

senior LAMEs and AMO chief engineers to raise concerns, directly with MSA, regarding the perceived deficiencies in the skills training.

Brian Cobb is MSA’s national coordinator of aviation maintenance training. Industry must start inputting to MSA; Brian is contactable by email:

briancobb@mskills.com.au

www.mskills.com.au/

MSA is also offering study awards

- 20 Oct 2009 - \$10,000 Study Award offered by MSA

Reducing Accident/Incident Occurrences Maintenance Elements

Based on factual data from government databases, since 1998, of all accident/incident occurrences, 14% involved some degree of mechanical element.

According to ATSB's 1998-2007 safety report, there has been some changes to the mechanical elements within occurrences.

In GA, powerplant, airframe & systems occurrences have recently trended slightly upwards. Of the 25 mechanical related accidents between 1998 and 2007, 74% involved GA aircraft.

Of the 1,529 accidents between 1998 and 2007, 20% involved a mechanical failure. Of these, powerplant events were the most common but have remained fairly consistent, whilst areas such as landing gear events have increased.

Irrespective whether there is a trend up or remain static, the level is still unacceptable to the MRO industry and our members.

To increase aviation participation, which will increase aircraft usage, we need actual maintenance improvements that will result in lowering the mechanical elements involved in accident/incident occurrences.

There are a couple of other facts that need to be taken into account when trying to analyse why improvements have not been made.

One, the number of aircraft on the register has increased during this period although the GA segment has had a decline in hours flown/annum.

Two, during this period, the average age of aircraft on CASA's register has also increased with 35%, by far the largest group, aged between 27 & 36 years old.

What this does is place increasing emphasis on preventive maintenance for an ageing aircraft fleet with low utilisation.

Ageing aircraft and low utilisation are two elements that are not addressed in most aircraft manufacturer's maintenance data.

To reduce the 14% mechanical occurrences both registered operators/owners and the maintainer need to take additional attention regarding ageing aircraft and low utilisation factors.

Low utilisation airframe/systems effects can be reduced by performing, for example, a 50 hourly inspection every 6 months. Engine problems can be reduced by regular engine servicing program addressing low utilisation.

Ageing airframes require more detailed airframe structure and airframe systems inspections as well as increased servicing.

Of course, lack of hours means additional costs not compensated by increased flight hours therefore operational costs increase.

To lower the 20% mechanical failure element in accidents and the 14% mechanical element involved in all occurrences, registered operators and their maintenance provider need to work closely together to help reduce these factors.

Reducing these percentages will increase maintenance costs but the right maintenance may also reduce unplanned costs when components fail to operate safely.

Improving the reliability of an aircraft to reduce maintenance related elements of accident/incident occurrences is the responsibility of the registered operator.

Registered operators should discuss the maintenance of their aircraft with their maintenance provider especially if it has low utilisation or is an ageing aircraft.

What should be the goal of the industry is to reduce the 1 in 5 accidents having a maintenance element to 1 in 10. In addition, we must lower the 14% incident mechanical occurrences.

When people are transported in an aircraft, their expectation of safely arriving at their destination should be the same regardless of the type of aircraft being used.

ATSB Safety Report

"The most common organisational influences involved in investigated occurrences between 2001 and 2007 were regulatory influences (45%) and safety management (40%)."

16.9 accidents/100K flying hours in private/business & 18.1 accidents/100K flying hours in aerial ag are by far the worse sectors in GA.

However, they have decreased since 1998.

CASA Annual Report

CASA's appropriations & responsibilities are derived from Infrastructure's Outcome 2: Fostering an efficient, sustainable, competitive, safe and secure [air] transport system.

CASA's Outcome is: Fostering an efficient, competitive, safe and secure transport system through CASA's vision. Safe Skies for All"

Note that CASA's outcome does not include "sustainable".

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More Aircraft – Less Hours

This factor should be utmost in everyone's aims. Doubling the number of aircraft on the CASA aircraft register whilst total non airline fleet hours are reducing clearly must be addressed IF aircraft are to be retained as an alternative form of transport.

Ask anyone why aircraft are no longer used as much as they were in the past and you will open a great debate. High on the list is regulatory impost costs, maintenance costs, aerodrome privatisation, etc, etc.

One misconception that is virulent in society is that non airline aircraft transport system is for the rich and famous.

Aviation does not even have a seat on the Minister's National Transport Council. Just about every form of transport; road, rail, marine, even the cycle industry are represented. Aviation needs to be part of the National Transport Council.

If anyone looked at Minister Albanese media releases over the last few weeks, you will find that millions have been assigned for cycle ways in cities all over Australia.

Where is the government money being spent on aviation's infrastructure?

If aircraft are to compete as a form of transport then we must start lobbying the Minister and real progress must be made to reduce costs so that aviation can be com-

petitive with other modes of transport moving people and freight.

Obviously the environment that has been in existence for the last couple of decades has not encouraged noticeable growth in the non airline sector.

When will government accept that aircraft are a form of transport and every effort should be made to reduce regulatory impost restricting the promotion and fostering the non airline aviation sector?

CASA's *Annual Report* tabled in Parliament and ATSB's *Australian Aviation safety in Review: 1998 to 2007* provide all the factual information that confirms the declining industry.

The effects of regulatory change are usually felt 3-5 years after the regulatory changes are made.

In the early/mid 1990s major changes were made to the Regulations and many Orders were repealed. Major changes to the maintenance rules, pilot licensing, etc were introduced, including the introduction of ATOs.

Most in aviation that have experienced this period agree that the industry would have been a lot better off if most of these changes did not happen.

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."

