

# AMROBA<sup>®</sup>inc

ADVOCATE OF THE AVIATION MRO INDUSTRY

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## Regulatory Timetable Crisis

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We are about to enter that period of time where there could be a Federal election sometime in the next 18 months. Once the government gets close to the election it enters what is called "caretaker mode" and it is then hard to obtain major amendments and new legislation, especially if the commencement date is post the election.

In addition, when a new government is formed, they have an agenda that usually pushes aviation regulatory change back as 'priority' legislation is debated as new Ministers come to terms with their portfolios. Aviation regulatory change could have a 12-18 month 'black hole'. Having seen past delays around election time, it was appropriate that AMROBA write to CASA alerting them to the fast approaching problem when the transitional periods for CASR Parts 42/145 expire in July 2013.

For example, the current **transitional** provisions state that CASR Parts 42/145 only applies to those involved with airline operations (CAR 206(1)(c))

"Subject to **Subpart 202.BA**, this Part [42] applies to:

*a registered aircraft and an aeronautical product for a registered aircraft.*"

Subpart 202.BA states from 27 June 2011 until **26 June 2013**, Part 42 will apply to airlines only.

Once the transitional time of June 2013 passes, Part 42 applicability provisions make that Part applicable to all CASA registered aircraft and aeronautical products for these aircraft.

Without doing anything, the CASR maintenance regulations will become applicable to the non airline sector. We were [mis] led to believe that Part 66 was also in the transitional timeframe last year.

The last time CASA put a time frame to convert to the CASRs was in Part 21 manufacturing and we witnessed 50% of the aviation manufacturers disappear from this industry.

The same could occur but this time in maintenance. Just about everyone knows that Part 42, if applied, would have a huge negative effect on GA.

Of course we could just sit back and wait for Part 42 to come into effect or to lobby CASA to take action so we can provide some surety for the future.

We have taken some heart from CASA's GA Project and based on that project we are also trying to work with educators to come up with a training program to enable all AMEs (LAMEs) to up-skill their academic skills to the level needed for CASA to issue these new B1/B2 licences without exclusions.

The problem is, to get all LAMEs up to the B1/B2 level, will take a few years. CASA gave the airlines 5 years to up-skill their LAMEs but closed their eyes to the plight of the non airline sector.

CASA has shown no empathy with the uncertainties they have created so it is up to ourselves to take action to up-skill. We are working with the ALAEA to come up with a pilot program that will take persons with trade, MEA97, MEA07 qualification to up-skill to the skills that CASA accepts as meeting the B1 and B2 levels.

However, until we see a regulatory project promulgated by CASA to amend the applicability provisions of Part 42, we must assume that June 2013 will be the commencement date for the non airline sector.

The best outcome would be for CASA to raise a project to re-create a CASR Part 43 applicable to the non airline sector and leave Part 42 applicable to the airlines.

CASA has called a SCC MSC (Maintenance Steering Committee) meeting on the 30 May, the first meeting since September 2009. We will be stressing the need to change the applicability provisions as confirmation that CASA's GA project is a genuine proposal.

AMROBA has also written to CASA requesting the transitional provisions are placed on the agenda for the meeting.

Most of our members are still smarting over being misled regarding the applicability of Part 66.

Maybe CASA will propose self administration as a way out of regulating GA. There are some that think this would be an answer. Our answer is to get rid of the excess regulations & adopt the 13 regulations of FAR Part 43.

# Weight & Balance Compliance

*There are many factors that lead to efficient and safe operation of aircraft. Among these vital factors is proper weight and balance control. The weight and balance system commonly employed among aircraft consists of three equally important elements: the weighing of the aircraft, the maintaining of the weight and balance records, and the proper loading of the aircraft. An inaccuracy in any one of these elements nullifies the purpose of the whole system. The final loading calculations will be meaningless if either the aircraft has been improperly weighed or the records contain an error.*

*Improper loading cuts down the efficiency of an aircraft from the standpoint of altitude, manoeuvrability, rate of climb, and speed. It may even be the cause of failure to complete the flight, or for that matter, failure to start the flight. Because of abnormal stresses placed upon the structure of an improperly loaded aircraft, or because of changed flying characteristics of the aircraft, loss of life and destruction of valuable equipment may result.*

*The responsibility for proper weight and balance control begins with the engineers and designers, and extends to the aircraft mechanics that maintain the aircraft and the pilots who operate them.*

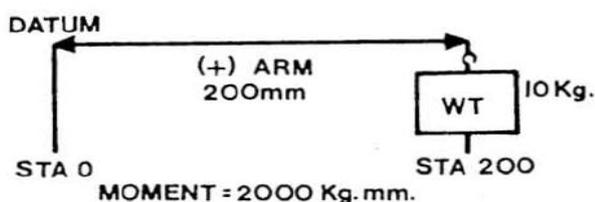
These are the opening words to the FAA W&B Handbook FAA-H-8083-1A, printed 2007.

[www.faa.gov/library/manuals/aircraft/media/FAA-H-8083-1A.pdf](http://www.faa.gov/library/manuals/aircraft/media/FAA-H-8083-1A.pdf)

Maintaining the running record of an aircraft's W&B record is a responsibility of the LAME.

Whenever the aircraft is being modified or repaired, the certifying LAME must be aware of weight changes the modification or repair will impose on the aircraft weight, CoG and even its flight characteristics. Helicopters are more critical than aeroplanes.

A change involving  $\pm 10\text{Kg}$  in a large aircraft may not be noticed but in smaller aircraft, depending on the moment arm, it may be critical.



In many cases, weight changes have been made but the records were not changed because the approved data did not mention a weight change.

**This really is not an excuse the certifying LAME should rely on, as airworthy practices makes the LAME responsible to record W&B changes.**

The last thing we need is for CASA to raise more legislation to implement standard practices.

A LAME has a duty of care to recognise weight changes during modifications, repairs and also replacement components.

One of the problems confronting those maintaining aircraft is, in many cases, the lack of an aircraft equipment list, especially for aircraft that had used the old Authority's Aircraft Flight Manuals.

An aircraft equipment list that includes equipment weight and moment arms is important in on-going monitoring of the aircraft's W&B records.

Avionic changes in aircraft over the recent years have, in some cases, reduced weight. In some aircraft logbooks, these reductions have not been recorded correctly.

The FAA handbook states "*the TCDS includes all of the pertinent specifications for the aircraft, and at each annual or 100-hour inspection, it is the responsibility of the inspecting mechanic or repairman to ensure that the aircraft adheres to them.*"

The aircraft's TCDS includes the aircraft design W&B figures.

## Weight control airworthy practices:

When a LAME adds or removes any item to the equipment list, he or she must change the weight and balance record to indicate the new empty weight and EWCG, and the equipment list is revised to show which equipment is actually installed.

The largest weight changes that occur during the lifetime of an aircraft are those caused by modification and repairs.

Australia has been well served by the Authority's creation of Weight Control Authority holders and we hope they will continue in the future.

If, during a review of an aircraft W&B records, it becomes obvious that previous modifications or repairs were incorporated and, in the opinion of the certifying LAME, the records are not correct; then appropriate action must be taken to amend the W&B Record.

In some cases and every so often, those aircraft where it is not compulsory to have regular weighings, a physical weigh should be carried out under the control of the WCA.

In Australia we have had a few aircraft accidents because of overloading so we need to be aware of basic weight and balance control. The WCA cannot create a safe loading system if computations are not based on true figures. Just another area of maintenance/airworthiness control.

## CASR 21.470 (Foreign Approvals)

The regulation applies to "Foreign modification and/ or repair designs". This applies to a design for a modification of, or repair to, an aircraft, aircraft engine, propeller or appliance, is taken to have been approved for the purpose of these Regulations if the design is approved under specified methods detailed in this regulation.

As we previously stated, we had a bit of confusion with the methods specified in this regulation especially paragraph (a) and (d). CASA initial response that (a) related to mods/repairs already in an imported aircraft were acceptable did not seem to be supported by the law so we asked for clarification. Nor did we agree with their response to paragraph (d) when the CASA/NAA agreement states that US mod/repair designs are accepted.

CASA's response to our query to clarify these issues supports how we were interpreting these particular paragraphs.

CASR 21.470(d) puts into effect, the BASA/ICAs between CASA and the FAA and enables the Australian MRO industry to have free access to FAA (DER) designs for mods/repairs and apply them to Australian aircraft.

CASA's response states that *Paragraph 21.470 (d), designs for modification/repair to aircraft or aeronautical products are taken to have been approved under the regulations if the designs are accepted under a BASA between CASA and the FAA are taken to be approved for Australian aircraft and aeronautical products.*

This response now supports the BASA/ICA para 2.3.1 *Australia shall accept, **without further investigation, the following FAA Design Approvals:***

*(a) Supplemental Type Certificates for all products, regardless of the State of Design;*

*(b) Approved design data used in support of repairs for products, parts, and appliances regardless of State of Design;*

*(c) Parts Manufacturer Approval; and*

*(d) All other minor design changes.*

As long as the FAA(DER) approved data is applicable to the aircraft product by serial number, etc, it can now be used in the course of maintenance.

We also were concerned with CASA's original response to CASR 21.470(a) as we could find no regulatory provision that restricted the paragraph to imported aircraft.

We accept CASA's latest response but it also raises the question why we have a BASA/ICA with the US/FAA, except to export some of our manufactured products into the US.

Basically CASA has confirmed that para (a) enables acceptance of designs for mods/repairs approved by a recognised NAA to be accepted without the need for a BASA/ICA.

CASA's response states *Paragraph 21.470(a) relates to designs for modifications/repairs to Australian aircraft or aeronautical products that have been approved by the NAA of a recognized country. In other words, paragraph 21.470(a) can operate without the presence of a BASA between CASA and the NAA of a recognised country.*

It makes one wonder if the recognised NAAs will accept CASA (AP) approved designs of modifications or repairs without the need for an agreement between CASA and the recognised NAAs.

It would have been appreciated by our own industry if para (a) put into affect agreements between CASA and the recognised NAAs. How does CASA regulatory oversight these NAA designs?

## Pipistrel Panthera Aircraft

By Bethany Whitfield

"[Pipistrel](#) took the wraps off its super-efficient Panthera four-seater this week at the Aero Expo in Friedrichshafen, Germany, giving avgeeks a first glimpse at the aircraft that boasts a 1,000 nm range and a cruise speed of 200 knots, all while burning a mere 10 gallons of gasoline per hour.

The prototype unveiled at the Expo is powered by a Lycoming IO-390 fuel-injected engine and comes equipped with retractable landing gear and BRS parachute. Company reps say a hybrid and electric version of the aircraft are currently in the works.

The Slovenian-based manufacturer has pinned the Pipistrel Panthera with the tagline "*Wildly Innovative*," and if the sleek design can attain its target performance stats under Part 23 certification, it will be.

Company reps expect the Panthera, which was launched last year, to receive certification in 2015 and are planning on pricing the aircraft below \$500,000."

It is no wonder that the FAA ARC is reviewing FAR23 to reduce the cost of certification. It is estimated that it takes around \$10M to certify an aircraft to the FAR standard. No wonder there are no new designs coming out of the US. There are some companies turning out new-design airplanes like the Quest Kodiak & GippsAero GA8.



# Aviation Changing Trends

## According to CAPA.

In Asia, where high growth has become the norm, China is looking more fragile and India's industry has to breathe deeply before its next spurt, but low-cost airlines and intra-regional expansion are being progressively fuelled by liberalisation. No less than seven new LCCs (mostly JVs between existing LCCs and full service airlines) will enter the market this year, making for a total of 50 in the region, far more than in any other. This is a unique force in global terms; independent LCCs have more than 1000 aircraft on order in Asia Pacific and Indian markets.

For the longer run, 2012 too will prove in retrospect to be the year that China's full service airlines started to make their mark as an

international force; still relatively small abroad, they are starting to influence markets as they expand.

## Pay Cuts in the US

Of the major U.S. airlines, only American lost money last year, about \$2billion. And the losses keep piling up -- another \$1.7billion in the first three months of 2012, although most of it was for bankruptcy-reorganisation costs.

"We're going through a major restructuring of labour relations in the airline industry," said Gary Chaison, a professor of industrial relations at Clark University in Massachusetts. "The entire industry is preparing itself for hard times ahead that might be caused by high fuel prices or by the continuing recession -- forces beyond its control."

The unions, which forced American to capitulate on wages in the 1990s, have lost much of their clout. Even if they agree to concessions now, Chaison said, they'll probably be asked to give up more in a few years as the airlines go through more cost cutting.

## Staff cuts--wage cuts in Europe

In a letter to the Lufthansa Group's 117,000 staff, the board announced a new programme called "score", which aims to make cuts of at least €1.5 billion (US\$2 billion) by 2014.

Lufthansa can rely on the full support of the unions in pushing through the cuts. They have long been involved in helping the company impose the cuts, and were included early in the planning.

The airport at Frankfurt/Main will be particularly hard hit, with 1,500 jobs threatened. At the same time, the remaining employees will be transferred to a new company where they will work longer hours for less pay. The cuts will reduce personnel costs by 5 percent per flight hour.

## Job cuts in Australia

Qantas is yet to confirm how planned job cuts will affect hundreds of staff and which facilities will be hardest hit, the union representing the airline's maintenance workers has said.

Today's announcement also follows reports of a review conducted by the airline, which concluded that the division at Tullamarine could not be saved and must close within months, with another 660 workers at Avalon not expected to keep their jobs beyond two years.

## Conclusion

Globally, airlines are going through cost cutting reviews to remain viable in a very competitive field--more cuts to come?



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## 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."