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ADVOCATE OF THE AVIATION MRO INDUSTRY

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CIVIL AVIATION – NEW LEADERS




Minister | Secretary | CEO/DAS | Chair

Minister: Mr Barnaby Joyce
Secretary: Mr Simon Atkinson
CEO/DAS: Ms Pip Spence
CASA Chair: Mr Mark Binskin

NEW LEADERS - NEW VISION?

Civil aviation is now managed by a new government management team to lead our industry back into a harmonised, internationally recognised, competitive safe industry.

Australian civil aviation has an inherently safety culture built on over 100 years of aviation experience. An industry that is innovative, an industry that has been a world leader in design and creation of modern technology that sadly has, in recent years, been stifled.

Can these leaders achieve where the Byron/McCormack/Carmody era under-achieved. Skidmore wasn't there long enough to implement change.

These new leaders have to overcome:

1. Elected officials divide their time between predominately running for election and actually doing 'government' work, which means we are second priority.
2. Elected officials come and go, but bureaucracy remains.
3. No bureaucrat or government agency will relinquish any of their powers.

Australia's political and bureaucratic view of civil aviation has always been a short term vision. With no long term vision that actually prevents short term removal of aviation's capability to be a real long term job creating industry. New Leaders, be aware.

The first task for these new leaders is to develop and promulgate a new Aviation Safety Program that at least looks to the future and is written in support of the Convention.

The second task is to create an inter-government aviation free trade agreements policy and team that negotiates government to government bilateral aviation [safety] agreements to enable our aviation businesses to compete internationally in their own right. Harmonisation.

The third task is to fix our domestic commercial and non-commercial regulations.

Look at the differences Australia has lodged against the Convention Annex standards.

If any NAA around the world looked at the differences lodged, they would not consider a Bilateral Agreement with Australia.

Table of Contents

1. *Airports Act Review – Minister's responsibility*

When government made the decision to privatise aerodromes, to shift the cost of running aerodromes from government to private operators, nobody understood the effect it would have on aviation in Australia. How many of these leased aerodromes will exist in 100 years is now debateable as civil aviation is being restricted in favour of non-aviation businesses operating on these airports.

Unlike USA legislation, the operators (Property Developers) can freely remove aviation businesses and replace with non-aviation businesses simply by developing non-aviation commercial development within a comprehensive master plan submitted to the Minister for approval.

California has a bigger aviation community than Australia and it has professional airport legislative requirement specifying airport land use. The new leaders, Minister and Secretary, should read and model Australia's aerodrome land use on California's State Aeronautics Act and adapt their "Airport Land Use Planning Handbook" to properly control aerodrome development and compatible planning in the vicinity of each existing and new public use aerodrome. The Handbook states:

"*Aviation is a vital link in the local, national, and global transportation system. Air cargo, consisting mainly of high-value, time-sensitive documents and goods, plays a significant role in the vitality of the state's economy. In today's international and technology-oriented economy, businesses use the speed and reliability of air service to achieve operating efficiency. California's airports are critical for providing services such as business travel, tourism, emergency response, fire suppression, and law enforcement. Airports, airlines, and businesses that support airports provide direct and indirect jobs and income throughout the State. The vital role that airports play in economic development and as a means of passenger and cargo transportation cannot be understated.*

Incompatible development near an airport can lead to a politically contentious relationship between an airport and the communities around it, resulting in complaints and demands for restrictions on airport operations, ultimately threatening the airport's ability to operate efficiently and serve its function in the local economy."

The last sentence says it all.

> Current Australian, Minister-approved, aerodrome master development plans will lead to a "*political contentious relationship between the aerodrome and the communities around it ultimately threatening the aerodrome's ability to operate efficiently and serve its function*"

In Australia, government development policy for our Metro airports is the exact opposite to California's airport land use requirements.

> *The desired outcome or result of airport land use compatibility planning is to "minimize the public's exposure to excessive noise and safety hazards"* ***while providing for the "orderly expansion of airports"***

"3.4.2 General Aviation Airports

The characteristics of general aviation airports and their environs vary widely. They range from very busy "reliever" airports in metropolitan areas to minimally used

facilities in rural locations. The extent of compatibility issues and the availability of data from which to create an ALUCP also run the full gamut.

For an average general aviation airport, noise, safety, airspace protection, and overflight compatibility concerns are all important issues to be addressed in ALUCPs. Moreover, because ***many general aviation airports are located on the fringes of urban areas****, both* ***the threat of new incompatible development and the opportunity for ALUCs to help preserve compatible land uses are great.*** *Available activity level, noise impact, and other data needed for compatibility planning is not normally as extensive as for air carrier airports. Essential information often must be gathered from a variety of sources ranging from airport master plans to interviews with airport staff and others familiar with operation of the airport. Obtaining data on the locations of principal flight routes can be particularly difficult, yet of key importance at moderately busy facilities. Again, planning for the distant future is highly important*."

Long Term Policy

The simple question to government (Minister & Secretary) is: Why do you allow aerodrome master development plans that will be negative to aviation expansion?

While having an airport environs totally devoid of development may be ideal from a land use compatibility perspective, it seldom is a realistic objective. For one, existing development already makes such sterility impossible to achieve at most airports. Moreover, even in sparsely populated areas, trade-offs generally must be made between an ideal degree of land use compatibility and the community needs for land use development.

This is accepted by the aviation industry but the current trade-off is destroying the aviation industry future growth by enabling non-aviation growth that is incompatible with aviation businesses today and into the future.

Urgent Action.

The Secretary must develop a strategy for Minister approval for achieving noise compatibility in the vicinity of an airport by preventing or limiting development of land uses that are particularly sensitive to noise. Common land use strategies are ones that either involve few people (especially people engaged in noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses).

The Airport Act does not contain these standards and is deficient when compared with the California Handbook. No wonder aviation can grow in a more highly populated nation that is very environmentally strong.

Without doubt, the overseeing bodies, pricing controls and monopoly powers are supposedly oversighted by the Australian Competition and Consumer Commission (ACCC). But who provides the oversight of development of these airports?

The Productivity Commission raised an issue with the current monitoring arrangements that have been described as being an example of 'light-handed' regulation, as compared with traditional 'heavy-handed' regulation.

Under this "light-handed" approach, smart property developer airport operators managing these aerodromes have utilised loop holes to implement their master plans.

Back to the Top

2. New 3D printing technology – Will Bureaucracy Cope?

Adopting new technology is one of the exciting benefits in aviation. Just imagine if manufacturers, including PMA manufacturers, could send your replacement part to your 3-D printer to print your replacement part.

3-D printing is no longer a new or innovative technology for the largest manufacturers in aerospace, who have been creating solid objects from digital files for more than a decade, but what's happening across the industry now is a massive expansion in the number of use cases where additive can replace conventional methods of manufacturing commercial and military aircraft parts at lower costs, faster lead times and with more digitally flexible design and development methods.

"*Airbus Services subsidiary Satair last year supplied what it "believes" to be the first additively manufactured certified metal printed flying spare part to a U.S. airline."*

The Future.

Australian maintenance organisations will install a 3-D printer, purchase the specified additives from the manufacturer and then the manufacturer will print, on your printer, the replacement part. Can bureaucracy cope?

Demo: https://youtu.be/MRMwLTiBMEI

There are many links to aviation parts being made to aircraft on the net.

Markforged https://markforged.com/industries/aerospace demonstrated, at the recent Rotortech trade show, parts being made on a 3-D printer & the capabilities in aviation.

As they explained, they can today print the replacement part on any capable 3-D printer anywhere in the world. As long as they, the manufacturer, can link to the 3-D printer, they can print the part.

Additive Manufacturing has been around for a few decades but improved computer and printer technology has widen the capabilities for the future.

Regulatory Issue

Consider Australian Parts Manufacturers applying to CASA for a PMA with a delivery system that prints on a 3-D printer at a remotely located maintenance organisation.

Who issues the manufacturing Authorised Release Certificate?

- Manufacturer who does not see the finished product?
- Maintenance organisation that does not control the process?

e.g. " The printer itself is certified by the Federal Aviation Administration and the Air Force Advanced Technology and Training Center and prints from an online database of parts developed by the University of Dayton Research Institute."

Maybe this technology is too far advanced for our Australian government to adopt.

Today, new aircraft that are being manufactured, are using 3-D printing processes to make structural parts. Considerable weight savings are a major benefit.

The regulatory systems will have to come to terms with the future delivering of replacement parts via your 3-D printer.

Back to the Top

3. AME Licencing and Training – Future Changes

The Chicago Convention places obligations on Australia and these obligations are spread across a number of government departments and agencies.

In Australia, this 'allocation' needs fine tuning because in the past, a government department or agency has been made responsible for an Annex, whereas, within an Annex more than one government department or agency should be responsible.

This has been the case with Annex 8, Certification and Maintenance standards.

AMROBA has proposed to government that provisions within Annex 8 are not allocated to any government department or agency. In particular, CASA is a licencing authority, not an educator; but no education department or agency has the responsibility to meet the global training & skilling of maintenance personnel.

Infrastructure, the major department responsible for the Convention agrees and is working with the Federal Education Department to allocate responsibility to train and 'qualify' aircraft maintenance engineers to recommended ICAO CB training standards.

For the first time, Education will be responsible to train and qualify AMEs and CASA will be responsible for licencing these qualified AMEs.

The outcome we want is for CASA to accept NVET qualifications and only provide an AA type examination on the responsibility of the AME licence. E.g. Part 66 module 10.

This is the biggest change in aircraft maintenance engineer training in over 50 years.

Our civil aviation new leaders have to ensure that CASA accepts the Education maintenance personnel qualifications and only perform a licencing examination not a trade examination in the formal training process. The same as other Australian trade/licence based systems. Overall costs will be lower.

Allied trades – Self Study

As an employer, who do I employ?

The Fair Work Ombudsman provides a detailed Guide to taking on an apprentice.

"*Apprenticeships operate on the basis of a formal training contract between you and your apprentice. The contract outlines your obligations to provide training and the qualification your apprentice is working towards achieving.*"

A national education competency based trade '**qualification'** underpinning each licence category or sub-category will also enable better recognised prior learning to upgrade allied trade qualifications to an aircraft maintenance engineer qualification.

Recognised Prior Learning

If the Education Department is responsible then all ASQA RTOs will practice RPL iaw the education policy. "*With RPL, you may be able to use existing skills to considerably reduce the time and cost it takes to complete a qualification.*" Existing skills can be attained by experience.

This would end the differences that we currently experience with some Part 147 MTOs.

To attain an AME licence you would need a NVET AQF qualification like any other trade.

NVET qualified AMEs, same as CAR 30 qualified employees.

Back to the Top