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AVIATION MAINTENANCE REPAIR & OVERHAUL BUSINESS ASSOCIATION, INC
ADVOCATE OF THE AVIATION MRO INDUSTRY

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1. An Industry in Permanent Transition?

It is of great credit to the participants of '*general aviation*' that safety levels have been sustained during continual transition to an unknown future not yet defined by governments, or the public service, that are still debating what is "general aviation". Since the *1992 Productivity Commission's Intrastate Aviation* paper, aviation, in particular general aviation, has been in transition. But, ***Transition to what***!!!!

Aviation has been unsympathetically treated by governments for decades and some changes that have been imposed on aviation was not based on survival or growth of the VH general aviation industry. You only have to look at how the public service interprets recommendations from multiple reports that have been created over the last 30 years to understand the outcome we have today.

None of the reports generated by Federal & State parliaments supported a blueprint that describes where and how general aviation participates and grows in the future. The political answers were, and are, "*competition*" and "*direct cost recovery*" from participants.

Like roads, airports are a means of transport servicing communities commercially and privately. Without airports, communities tend to wither and stagnate.

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2. Do We Have a Government Small Aircraft Transport (SAT) Policy?

Before the review era started in the 1980s, Australia had a *small aircraft transport system*.

Today, the EU is further ahead with their SAT system which we once had.

> "general and business aviation complements regular air transport performed by commercial airlines and thus provides specific social and economic benefits such as increasing the mobility of citizens, the productivity of businesses and regional cohesion".
>
> ** ***European Parliament Resolution of 3 Feb 2009 on an Agenda for Sustainable Future in General and Business Aviation***.

Quote: "**EU**: SATS aims at the segment of the transport market that is not served by scheduled air transport ~~or high-speed trains~~, which today results in a substantial need for road travel for short to medium distances, to answer the specific needs of business and other users. --- The small aircraft transport mode can fill a gap, which exists between Surface Transport and regular mass Air Transport." *Unquote*.

The EU is behind SATS so why can't we get political support in Australia???

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3. Regulatory Change Failures

The move from (1) Air Navigation Regulations and Orders to (2) Civil Aviation Regulations and Orders was never completed before it was decided to move to (3) Civil Aviation Safety Regulations and Manual of Standards based on the FAR Parts structure and before that was completed, adoption of (4) EASA Regulations and Acceptable Means of Compliance is also being applied.

The government's guide to better regulation states: *With this new approach stakeholders can look forward to a future with substantially less red tape and Australia's economy continuing to grow and prosper.*

What really is the future direction and outcomes of aviation regulatory change?

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Aviation, especially general aviation, has been unsympathetically treated by governments for decades and some changes that have been imposed on aviation was not based on survival or growth of the VH general aviation industry. You only have to look at how the public service interprets recommendations from multiple reports that have been created over the last 30 years to understands the outcome we have today.

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The significance of "**AVIATION**" was officially removed from the Federal Portfolio Department's title in 1987 when *Departments of Transport, Aviation and Communications* amalgamated to form the *Department of Transport and Communications*.

Creating an Agency (CAA) in 1988 moved aviation outside political influence but this also meant a loss of a previous political supported general aviation industry; design, manufacturing, maintenance, private and commercial operators.

The August 1990 Federal Budget announced that the $73 million contributed towards safety regulation would be phased out in favour of the costs being met by the aviation industry.

A list of the changes over the last 20 years demonstrates the instability of governance.

No industry can grow when there is so much change in governance and administrative directions – all affect the capability of small and private businesses and individuals.

What are the benefits to the community and the small private and commercial industry?

It is hard to imagine the future when there is no vision promulgated and politically supported.

The biggest single problem with the government's *guide to better regulation* is that the Regulatory Impact Statement is based on there being a *government policy*.

If there is no policy for a future safe and viable general aviation industry, then all the RIS is creating is an undocumented policy problem to be changed.

The Government's guide to better regulations provides what was once an approach taken by the Authority and before the decision to include European provisions.

"*Light touch regulation is defined as:*

As a policy maker, you can choose to be less prescriptive and give discretion to regulated parties on how they can act. ***Principles–based regulation allows maximum flexibility among affected groups as to how they achieve compliance***."

When politicians eventually support a future for general aviation private and business aviation, including design, manufacturing and education, then making regulatory changes to reduce regulation and red tape to support that vision would make sense.

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2. *Do We Have a Small Aircraft Transport System?*

Before the review era started in the 1990s, Australia had a small aircraft transport system. We had what the EU and US parliaments supported the Small Aircraft Transport System.

- **The FAA/EU SATS has political support.**
- **No politically supported SATS in Australia?**

Today, the EU is implementing a SATS **which we basically had in the past**.

"**general and business aviation complements regular air transport performed by commercial airlines and thus provides specific social and economic benefits such as increasing the mobility of citizens, the productivity of businesses and regional cohesion**".

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Quote: "**EU 2009**: *SATS aims at the segment of the transport market that is not served by scheduled air transport ~~or high speed trains~~, which today results in a substantial need for road travel for short to medium distances, to answer the specific needs of. business and other users. --- The small aircraft transport mode can fill a gap, which exists between Surface Transport and regular mass Air Transport.*" ***Unquote***.

Quote:* USA: 2005**. *The challenge is to create a new mode of transport by wider use of small aircraft using local and regional airports, enabling access to more communities in less time. The SATS concept of operations uses small aircraft for business and personal transportation, for on-demand, point-to-point travel between smaller regional, reliever, general aviation and other landing facilities, including heliports. The SATS architecture contemplates near-all-weather access to any landing facilities in the U.S. SATS would leverage Internet communications technologies for travel planning and scheduling, which would also minimize user uncertainty regarding destination services.* ***Unquote.

NASA is preparing to fly the latest small plane technologies to demonstrate the advantages of a Small Aircraft Transportation System (SATS). This Lancair Columbia has recently been added to the research fleet of aircraft at NASA Langley Research Center. As envisioned, SATS would support prop and jet aircraft for business and personal transportation for on-demand, point-to-point trips, as well as scheduled service.

Where is Australia's politically supported **Small Aircraft Transport System?**

The SATS RIS includes the 10 compliance cost categories: education, enforcement, notification, permission, procedural, publication and documentation, purchase cost, record keeping, delay and other. The cost categories, except 'purchase cost' and 'delay cost', are labour activity based internal costs. 'Delay costs' are the expenses and loss of income incurred as a result of an application or approval delay and can be in the form of labour or non-labour related costs.

EU continued: "A possible visionary ~~European~~ (Australian) Transport System should be based on an environmentally sustainable, cost efficient, safe, seamless and co-modal passenger friendly system aiming to ensure mobility and cohesion for the European citizens while enabling economic growth.

More people and greater economic affluence mean more mobility and more transport. Some studies suggest that the number of cars in the world will increase from around 700 million today to more than 3 billion in 2050, creating serious sustainability problems unless there is a transition towards lower and zero-emission vehicles and a different concept of mobility is introduced in an environmentally friendly way."

Communication from the European Commission.

A sustainable future for transport: towards an integrated, technology-led and user-friendly system. Brussels, 17 June 2009.

Safety

Using professional pilots for small transport aircraft operating both under Parts 91 and 135 of the FAR or EU PART OPS, SATS will have a far lower accident rate than road transport. The challenge to SATS is to reach safety levels similar to those of current commercial air transport (Part 121 or EU OPS air carriers).

Improved small aircraft will be based on new technologies that facilitates pilot situation awareness and flying in poor weather which will help to reach the projected safety levels. Additionally, the small aircraft will be supported by new training systems.

[similar to the old ANR operator system]

Aircraft pilot issues

Using small aircraft means that the pilot costs will have to be shared by a lower number of passengers so, it is crucial to reduce the crew to one pilot, replacing the second by automatic system. SATS will be characterized by efficient pilot management, maximising the pilot availability and skills, complying with the rules addressing flight time limitations and required rest periods.

[So where is Australia's politically supported **Small Aircraft Transport Systems?]**

The Small Aircraft Transport System would **use small 4 to 19 seater aircraft, single pilot crew** and automated control & guidance, flying IFR operations, with propulsion systems that are tailored to the missions, using the network of regional airports, supported by appropriate ATC systems and an ICT infrastructure (Information and Communication Technology) to provide an easy reservation system and per-seat on-demand air travel and enable more effective operational and administrative procedures.

[The USA & EU research is applicable to Australia, we should use it]

Affordability

Calculations show that small aircraft transportation is cost effective compared to road traffic over distances greater than 200 kilometres. Using modern mass-produced small aircraft based on advanced technology and an intelligent transport business model, SATS will be affordable, and once full maturity is reached, costs will be similar or less than car travel.

The EU project showed that 7% (96 billon pas.km) of the future car travel (by means of affordable operating costs) in 2020 could be shifted to SATS. This would require a fleet of 89 000 small aircraft (4 to 19 seats), and generate up to 43 million flights per year.

[Would resurrect air services to many rural communities]

Business aspect

The business cases are generated by straight forward choices, but have complex operational characteristics. Operational characteristics and elements of the business cases include:

• **Totally on-demand**: the passenger is free to choose the final airport destination and the flight time. He always flies without other non-related passengers.

• **Semi on-demand**: the passenger is bounded in his departure and destination airport choice, but is able to choose its own flight time.

• **Per seat on-demand** (net-centric case): the passenger is free to decide his final departure and destination airport; other non-related passengers may accompany the original passenger to the same destination. Consequentially the passenger can choose a flight time interval for departure, whereas the operator decides the ultimate intermediate departure time of all passengers. The higher the interval the lower the charter price.

• **Aircraft fleet**: passengers are free to choose different aircraft type according to their demands.

[Adopt FAR Part 91 and 135 that support SATS]

Conclusion: To achieve a future Small Aircraft Transport System, we just need a "motion", we all agree with, to be put to the lower House, debated and passed so it becomes a Resolution.

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What really is the future direction and outcomes of aviation regulatory change?

The government's guide to better regulation states: *With this new approach stakeholders can look forward to a future with substantially less red tape and Australia's economy continuing to grow and prosper.*

So what are the failures? (Latest review may fix)

1. CASR Part 21 adopted the FAR Part 21 but never remained harmonised:
    a. In addition, many unique amendments were made over time.
    b. All changes introduced costs and red tape.
    c. FAR Part 21 major re-write in 2009.
    d. FAR was amended to remain internationally current.
    e. Failed to remain harmonised.
2. CASR Part 66/147 based on some provisions of EASR Part 66/147:
    a. EASA training system based on a modular training system.
    b. Introduced in 2010 and the VET system still has no training modules.
    c. CASA still has not promulgated EASR's course duration.
    d. Partial adoption has caused administrative hardships.
    e. Full adoption of EASA system should have been adopted/implemented.
    f. EASR Part 66/147 was heavily amended this year.
        i. EASR Part 66/147 has included GA licencing.
        ii. Latest EASR Part 66/147 needs to properly adopted.
        iii. Re-introduces licence "Group" ratings for GA.
        iv. Introduces a B2L for GA. (e.g. B1.2 (Group) & B2L).
        v. Introduces sport aviation AME licence ratings.
    g. Failed to harmonise and remain harmonised.
3. CASR Part 21 was amended to include EU CS 21, subpart J:
    a. Partial adoption caused additional costs.
    b. Full adoption is recommended to reduce costs.
    c. Failed to properly adopt and remain harmonised.
4. Adoption of FAR and EASR/CS supporting processes:
    a. Adopt FAR Orders/AC to support adopted FARs.
    b. Adopt EASA AMC/GM for adopted EU regulations.
    c. Failed to adopt and remain harmonised.

For those that understand the Canadian AME and pilot licencing system, it is obvious that the EASA systems are being based to a certain degree on the Canadian system. They have implemented a system that is practical and not biased for or against any sector.

Another Canadian system that should be considered is the owner maintenance system. The Canadian Part 21 introduced a "*Special Certificate of Airworthiness - Owner-maintenance*".

- These Canadian Regulations/Standards would formalise proper regulatory control.

AMROBA is also aware of similar failures in the operational regulatory provisions that also have economic restrictions on operations of same aircraft depending where registered, not what airspace the aircraft is operated in.

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