

Aviation Safety Regulation Review Submission



VIPA

Virgin Independent Pilots Association

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VIPA

The Virgin Independent Pilots Association (VIPA) was formed in 2009, in a response to the need for a more focused approach to pilot representation among Virgin Group companies in Australia. VIPA currently represents a large number of pilots at Virgin Australia, Virgin Australia International, Tiger Airways and Virgin Australia Regional Airlines.

VIPA has a specialist safety group, known as the Flight Safety, Technical and Regulatory Compliance Subcommittee (FSTRCS). This group represents pilots involved in incidents or accidents, monitors and makes recommendations on company and government agency practices, works closely with the Australian Transport Safety Bureau (ATSB), and manages a pilot welfare program. Members of the group are experienced airline pilots and qualified Air Accident Investigators, or Peer Supporters. Members are also involved in committees associated with Virgin's Safety Management System. The FSTRCS works closely with Virgin Australia and a number of major airlines and government agencies, both in Australia and overseas.

Review Objectives

VIPA understands that the Aviation Safety Regulation Review has the following objectives.

To investigate:

- # the structures, effectiveness and processes of all agencies involved in aviation safety;
- # the relationship and interaction of those agencies with each other, as well as with the Department of Infrastructure and Regional Development (Infrastructure);
- # the outcomes and direction of the regulatory reform process being undertaken by the Civil Aviation Safety Authority (CASA);
- # the suitability of Australia's aviation safety related regulations when benchmarked against comparable overseas jurisdictions; and
- # any other safety related matters.

VIPA will focus on a number of areas of concern in relation to current aviation practices in Australia. These areas include:

1. Civil Aviation Order (CAO) 48.1
2. Part 61, Flight Crew Licensing
3. CASA and the Cutting of Red Tape in the GA Sector
4. Security and Airport Full-Body Scanners

5. Australian Safety Transport Bureau (ATSB) Funding

6. Airport Infrastructure and Airservices Australia

7. Regulatory Cost Burden

Although VIPA's work is focused on representing airline pilots, many of the Virgin pilots are aircraft owners/pilots who continue to operate in the General Aviation (GA) environment. VIPA also recognises the importance of a thriving GA sector in supporting the Australian economy and producing good quality pilots for the airlines. Therefore, there will be mention of issues relating to GA throughout this submission.

1. CAO 48.1

For many years Australian pilots operated flight and duty time rules covered by CAO 48.0. Generally this was a very effective set of rules to prevent the effects of short and long term fatigue in pilots. In more recent times, pressure from airlines and other aviation companies has seen a liberalization of these rules. This has allowed operators to have more 'operational flexibility' and to extract more duty and flying time from the pilot. An example of this was the introduction of an exemption to CAO 48.0, which had the hallmarks of introducing elements of the United Kingdom's CAP371. Since then CASA has introduced a complex three tiered system, which at the highest level allows an operator to adopt a Fatigue Risk Management System (FRMS). The FRMS is a data driven system which should be supported by scientific research. Unfortunately systems like FRMS are easily manipulated and are often supported by science that is not peer reviewed. VIPA has recognised the potential flaws of such a system, and continues to fight for prescriptive flight and duty rule limits through regulation change and the Enterprise Bargaining Agreement (EBA) system.

The studies that CASA has relied upon for justifying this rulemaking shows that where accidents have occurred, the proportion of accident pilots with 10 hours or more of duty time was 1.7 times greater than for pilots working under this limit. CASA's new CAO 48.1 allows up to 16 hours of duty time and up to 10 hours of flight time including extensions to flight and duty time. European Aviation Safety Authority (EASA) and the Federal Aviation Administration (FAA) do not allow this.

Studies that the International Civil Aviation Organisation (ICAO), CASA, and other agencies relied upon in determining safe limits have found definitively that accident rates in the 12th hour of work are double that which occur during the 8th hour of work. For pilots with 13 hours or more of duty the proportion of accident pilot duty periods is over 5 and a half times. Whilst the FAA and EASA recognise this in their Flight Duty Period (FDP) limits, CASA has rejected the very science they purport to rely on for this rule making and allow 16 hour un-augmented duty limits.

CAO 48.1 ignores a previously acknowledged benchmark of limiting flight deck duty to 8 hours for long haul operations. ICAO and CASA recognised studies have shown that error rates increase by up to 4.7 times when time on task (flight time at the controls) exceeds 8-9

hours. Whilst the FAA limits this time on task by limiting 3 pilot augmented crew operations to 13 hours flight time max, CASA without justification will allow Australian pilots to operate 3 crew for up to 16 hours.

Both the number of sectors and length of FDP's allowed under CAO 48 extension of duty provisions represent a relaxation of the current limits, which CASA has stated are devoid of any scientific basis. Extensions to both flight times and duty periods have been increased beyond existing rules without any additional risk mitigation to fatigue. Extensions to existing, as well as proposed FDP limits, which some operators are now using, have in practice been the cause of considerable fatiguing events including serious incidents and accidents. The FAA has resolutely rejected allowing extensions to flight time limits as it reflects the scientifically sound tenant that actual flight time and not scheduled flight time causes fatigue.

Augmented crew operations under CAO 48.1 have been stripped of flight deck duty limits as a control mechanism for fatigue, despite EASA and the FAA including these limits to meet the intent of ICAO's FDP Standards and Recommended Practices (SARPs).

CAO 48.1 has prescriptive FDP limits for Tier 2 operators (most airlines) which VIPA considers to be so lacking in constraint that no airline in Australia would need to even consider using the Tier 3 FRMS rules. In 2016 when the changeover period expires, airlines will be forced to adopt these new Tier 2 FDP limits which are more liberal than current rules and provide less protection from fatigue risk.

CAO 48.1 is out of step with international standards and more importantly does not meet the ICAO SARP for FDP limits that is supported by the science that CASA and ICAO have both relied upon to develop these standards

2. Part 61, Flight Crew Licensing

Civil Aviation Legislation Amendment Regulation 2013 (No. 1) dealing with Flight Crew Licensing is scheduled to commence on the 1 September 2014. Construction and implementation of Part 61 (Flight Crew Licensing) was, in VIPA's view, poorly handled by the Australian aviation regulator. VIPA understands the need for Australia to modernize aviation regulation, however it is important to align itself with the major players in the industry, such as the United States and Europe.

Such a major change in regulation gave CASA the opportunity to adopt world's best practice and adopt a less complex approach to Flight Crew Licensing, this is particularly important to GA. The following example illustrates where Australia has not applied 'world's best practice' under the new regulation.

Qualifying of flight instructors and examiners

In December 2013, just prior to the 4 December implementation deadline, CASA ran Professional Development Program (PDP) courses for airline Check and Training pilots at Virgin Australia. It was clear that the Manual of Standards (MOS) attached to this regulation

had not been completed, nor was CASA's Flight Crew Licensing section prepared for the implementation date. CASA informed Check and Training pilots that they were now required to hold a Flight Instructor (FI) rating in order to exercise their examining privileges. The question was asked: How would Check and Training pilots that did not hold an FI be qualified in just two weeks? CASA responded by stating that the rating would be issued without need for further training. In the case of Virgin, management responded that over time they would ensure all Check and Training pilots would be brought up to speed on the Principles and Methods of Instruction. When asked about the base instructor qualifications for new Check and Training pilots, CASA stated that the minimum prerequisite would either be a tertiary teaching qualification, 'Certificate IV in Training and Assessment', or an approved course in the 'Principles and Methods of Instruction (PMI)'.

Certificate IV in Training and Assessment is a national qualification designed for people in industry to teach. Experience has shown that the Certificate IV in Training and Assessment course length varies and is designed for people to instruct a person to make a hamburger at McDonald's or to teach a person to weld a trailer. It falls well short of the basics and principles associated with teaching a person to fly a complex airline transport aircraft. PMI courses, can, if developed by airlines, be more useful. However, given the commercial constraints of Australian airlines, these courses are often too short and fall well below the requirements in other countries. These standards should be set in writing by the regulator and not left up to Part 142 operators with commercial objectives as their primary consideration.

Under Part 61, Australia has adopted a system of introducing a FI rating or Simulator Instructor (SI) rating with no less than 22 endorsements available under the FI rating. The proposed Australian system is competency based and has no minimum competency prerequisite for course entry or hourly requirement, which is the case under the EASA system. Australia has also not adopted the terminology used by both the United States and EASA by using the term FI 'rating' rather than 'certificate'.

Europe does not have a system of an umbrella FI rating system as adopted by the Australian Part 61. Instead EASA has separate instructor and examining certificates for the main license categories. For example, a European FI has to undertake extensive ground and flight training to qualify for the FI certificate. The holder of this certificate can instruct and revalidate licenses and ratings, such as a Private or Commercial Pilots Licenses, Multi-Engine Class Rating, and an Aerobatic or Tow Rating. Unlike the Australian system, the core traditional FI qualification is retained. Other types of training in Europe, such as, a multi-engine jet transport type rating, is covered by a Type Rating Instructor (TRI) and TRE (Type Rating Examiner) TRE certificates. These qualifications have extensive prerequisite and training requirements, which are not matched under the new Australian regulations. The United States also adopts the principle of retaining the core FI certificate, so it is difficult to understand why Australia has moved away from overseas practices.

A CASA consultative briefing document in November 2011 stated:

Part 61 of CASR 1998 also adheres to Australian Government policy for vocational education and training to be structured and competency-based, delivered by qualified and competent

instructors and assessed against clearly defined competency standards. Training for the grant of a licence or rating must be conducted by flight training operators authorised under Part 141 or 142 of CASR 1998.

VIPA would argue that under Part 61, Australia will continue to provide inferior airline Check and Training pilot training and examining qualifications, as it has not adopted world's best practice. Therefore, it does not meet the Australian Government objective of "competent instructors". For the GA sector, it is interesting to note that under Federal Aviation Administration Regulation Part 61.183(c), to be a flying instructor the pilot must hold either a commercial or airline transport pilot's license, which is currently the case in Australia. However, under new Australian Part 61.1185 (1a), a private pilot can now hold an instructor rating. There is provision under EASA regulations for a private pilot to hold an instructors rating. However, there are additional requirements, such as the applicant requiring commercial pilot license theoretical qualifications, along with extra hour and flight conduct requirements. No such provisions are required under the new Australian regulation, so clearly we are not meeting the minimum standards as required by both the United States and Europe.

The argument put forward in this submission is just the tip of the iceberg. Part 61 is an extensive regulation that has seen a philosophical change in many areas, and a movement away from more proven practices. It is clear from comparing the Australian regulation to that of the United States and Europe, that despite the rhetoric, we are now perhaps further away from these countries regulations than ever before. VIPA believes that a complete audit of Part 61 is required, and consideration should be given to moving back to a more traditional system which EASA and the FAA operate under, and one that has seen Australia become one of the safest places to fly anywhere in the world. The new rules are going to place an extra cost on GA in particular. This is evidenced by the new requirements for flight reviews in each endorsement category and the prevention of allowing company Instrument Proficiency Checks (IPCs) to cover competency in other aircraft categories.

3. Cutting of Red Tape in the GA Sector and the Structure of CASA

"UK government to slash red tape for GA sector"

These headlines were published just a few weeks before CASA was going to introduce Part 61. An investigation in the UK – dubbed the red tape challenge – found the regulatory regime to be too prescriptive and impractical for the UK GA community. In response to this the UK Government and the Civil Aviation Authority are preparing to strip away unnecessary bureaucracy by forming a "challenge panel" made up of industry experts and professionals. Their task will be to identify opportunities to deregulate and promote growth in the industry. The panel will also work closely with EASA to find ways of changing regulatory burdens on GA.

For many years now both the GA sector and to some degree airlines have been suffering from the imposition of poorly executed change of the regulations. One of the most significant changes was to aircraft maintenance with the introduction of Part 145. It would seem that much of the fault lies with the interpretation of the regulation by the various

CASA regional offices, along with the attitude of CASA inspectors. The aviation industry is rife with stories of confrontation between CASA and maintenance companies desperately trying to keep their businesses profitable while attempting to appease the unrealistic and bureaucratic demands placed on them. Many people would like to see a switch to the more practical regulations offered by the FAA. VIPA would contend the problem is not so much operating under either the European or American rules, it is more to do with changes to, and the interpretation of those rules in Australia. This is a fundamental flaw in the way the Australian regulator goes about its business, which by any measure has to change.

This regulatory review should give Australia the opportunity to take a fresh look at all aviation safety related regulations and adopt the principles of simplifying the regulations in order to not only promote safety, but to promote growth in all aviation sectors. Clearly, countries like the UK are moving forward by adopting these sound principles. The opportunity should also be taken review the legalistic and punitive approach that CASA has adopted during the formation of new regulation.

One of the complaints often heard about CASA is the varying interpretation of CASA policy and regulation by the different CASA regional offices and by individual inspectors. There is a need to restructure the authority to obtain a more consistent application of policy. And, there is also a need to attract a higher quality of applicant for both flying operations and airworthiness staff. In Australia, airline Flight Operations Inspectors (FOIs) are not permitted to operate an airline aircraft in order to keep current. The best they can do is a basic simulator endorsement on type, after which they become a so called "Type Specialist". They may be fortunate to have had some experience on type in the past, however this is often not the case. Very quickly a pilot who does not fly can become very detached from the real world, which starts to impair judgment, particular when exercising regulatory duties. These same inspectors also, for example, have to become 'experts' in Non-Technical Skills (NTS) matters, PMI courses, FRMS, and pilot training issues, for which again they may not have sufficient experience and knowledge to effectively exercise their duty.

4. Security and Airport Full-Body Scanners

In March 2012 VIPA made a submission to a Senate Enquiry regarding the introduction of full-body scanners at Australian international airports. VIPA found that there was insufficient scientific evidence to conclude that millimetre-wave body scanners were safe, and that there were serious limitations regarding the security effectiveness of such machines. A world leading security expert from Israel has described these machine as being easily overcome by people determined to smuggle explosives onto an aircraft.

The senate enquiry committee recommended that "... ***the use of frisk searches continue to be an alternative screening procedure at Australian international airports and, accordingly, that the bill not repeal section 95A of the Aviation Transport Security Act 2004.*** Based on health and privacy concerns VIPA agreed with this recommendation which is adopted by most countries throughout the world. The committee also recommended that "... ***the Government amend the bill to limit the use of ionising backscatter x-ray equipment for security screening to certain, clearly defined exceptional circumstances.***" Again, VIPA agreed with this recommendation based on evidence to suggest that ionising backscatter

machines are a health risk to humans. The two recommendations along with others were not upheld by the parliament and the Aviation Transport Security Amendment (Screening) Bill 2012 passed through the Senate.

To-date, there is insufficient evidence to show that terrorist attacks have been prevented by the use of these machines. And, only a hand full of countries applies the no-opt-out law to their use. The Australian government has conceded that there may be a potential health risk by not allowing children under the height of 140cms through these machines. VIPA continues to be concerned about the lack of transparent research into the health effects of both ionising and non-ionising full-body scanners. VIPA also recognises the very serious limitations of these machines with regard to airport security. VIPA also understands there are more sophisticated and effective ways to prevent threats to the air transport system, as adopted by countries such as Israel. Because of this, VIPA will continue to press for a review into airport security and would encourage government agencies to allow the inclusion of stake holders, such as VIPA in this process.

5. ATSB Funding

A major outcome of the Aviation Safety Regulation Review will be to examine and make recommendations on the aviation safety roles of CASA and the ATSB. The ATSB's core function is to improve safety within its multi model framework through;

- (a) Independent investigation of transport accidents and other safety occurrences
- (b) Safety data recording, analysis and research
- (c) Fostering safety awareness, knowledge and action

Unfortunately what the ATSB has seen over the years is a diminishing budget allocation when compared to other organizations, such as CASA and the Australian Marine Safety Authority (AMSA). As a consequence of this diminishing financial allocation, the ATSB expects to see a staffing reduction in the mid to long term, and as a result, being even further inhibited in carrying out its responsibilities relating to item (c) of the above core functions.

It's unfortunate that in recent years the ATSB has come in for heavy criticism, particularly in light of the Pel-Air ditching. In hindsight, the ATSB report into this accident was probably not indicative of their finest hour. However, should one report be held up as a beacon indicating major systemic problems within the ATSB? It is the view of VIPA that it should not, and to add some equality to the argument, one only needs to read the exemplary report the ATSB did into QF 32. The Pel-Air report and the associated public criticism aside, it is becoming increasingly apparent that the ATSB is facing a far more challenging future.

If one was to take a more credible and holistic view of the ATSB and its overview covering safety investigation, awareness and education, it would become evident quite early that insufficient funding and resources are being directed towards the important areas of industry safety education and awareness. A view not only held by VIPA, but shared with other sections of the aviation industry. It's a concern within industry that the ATSB received

funding to the tune of \$22 million this FY, in comparison the Parliamentary Library received funding allocation in the order of \$19 million.

It is an unfortunate situation we now face in Australia, one of diminishing aviation safety promotion and education, not singularly as a result of inadequacies with respect to funding, but also as a result of a lack of appreciation and awareness from Government of the capabilities of ATSB personnel and educational material they possess. It should be of concern to not only government, but the industry at large, the ATSB recently being approached by sections of the aviation industry to conduct education sessions, however being unable to provide the staff or resources to partake in such valuable sessions. This, as the CASA budget for aviation safety and promotion enjoys a continual robust allocation per year. However, all the industry receives from CASA, as a result of this continual fat monetary allocation is a substandard electronic " e-zine" sent 4 times per year. Information that is in essence, lacking for an industry as substantive and broad as we have in Australia.

The ATSB is the organization which is tasked in this country to overview functions that improve flight safety, and build confidence, both in GA and the airline industry. Not only is the ATSB facing a bleak future in terms of its normal day-to-day functions, a decline in funding will continue to erode away at the opportunity to provide safety education and awareness throughout the industry.

Given the wealth of information and experience contained within the ATSB, in our view, it can only stand to reason that this organization is best placed to educate and promote aviation safety in Australia. This is achieved through investigation into incidents and accidents, research, special reports, statistics, REPCONs, safety forums, collaboration with aviation groups, and access to resources both within Australia and agencies from other countries. In light of this, the ATSB should receive an appropriate increase in funding to carry out this essential function.

6. Airport Infrastructure and Airservices Australia.

Overview

This review covers a range of potential development areas for the improvement and enhancement of airport infrastructure and air services within Australian airspace.

1. Air traffic flow management system
2. Slot efficiency
3. Arrival/departure route design
4. Airport infrastructure and services
5. Navigation systems/Airservices
6. Service delivery

Air traffic flow management system

In March 2012 Australia commenced a staged transition to a new air traffic flow management system, Metron Traffic Flow. Airservices Australia describes a system which uses real time information to supply up-to-date traffic management information to airlines, airports and ATC. The system is used primarily for operations into Sydney, Brisbane, Melbourne and Perth airports.

In order to manage demand, Metron Traffic Flow issues ground delays for departing aircraft through Calculated Off Blocks Times (COBT). The window for compliance with a notified COBT in most cases is minus 5 mins to plus 10 mins. The reality is a system delivering considerable inconsistencies at the airborne phase. An aircraft might depart COBT compliant, that flight may then experience a delay for example single runway operations at its departure airport, following a lengthy taxi that aircraft departs later than Metron Traffic Flow had calculated. Despite the use of real time data that flight may or may not receive traffic holding as it approaches its destination. That aircraft could ultimately be delayed well beyond its intended Metron delay. Another aircraft might depart COBT non-compliant. That aircraft may have fallen non-compliant for many reasons, in a single departure alone it would not be improbable to receive a series of minor delays such as arrival delays, gate congestion, aerobridge technical issues.

Similar to the COBT compliant departure, despite the use of real time data this non-compliant flight may or may not receive traffic holding as it approaches its destination. However, in the case of the non-compliant aircraft it should be noted that ATC operations in accordance with the COBT system are within their rights to issue the maximum notified traffic holding to this non-compliant aircraft.

Clearly these COBT delays have potential to produce significant delays, along with astronomical cost increases to the operator. Human factor impact from an inefficient flow management system is also a major consideration. Fatigue presents in many forms on a daily basis within all airlines and ground operators. Fatigue from lengthy inflight holding and ground delays is avoidable. The effect of fatigue on a commercial operation includes the direct costs associated with in calling in new crew as outgoing crew reach and in some cases even exceed the maximum amount of hours they are allowed to perform due to these delays.

Fatigue represents a significant cost to an operator, not to mention the safety implications of an individual continuing to operate within a safety sensitive environment when fatigued. To improve inflight flow management a Long Range Air Traffic Flow Management system is being developed. If the system proves effective it stands to significantly reduce aircraft holding, instead an aircraft could receive a minor delay a greater distance from its destination, therefore could slow down to achieve the arrival time, significantly reducing fuel burn when compared with an aircraft flying holding patterns.

- VIPA: expedite implementation of Long Range Air Traffic Flow Management system.
- VIPA: optimise flow management using a combined Ground Based Delay and Long Range Air Traffic Flow system would greatly reduce the need for inflight holding, reducing fuel use and emissions, therefore reducing delays and costs to stakeholders.

Slot efficiency

Capital city airports need to manage aircraft traffic flow for various reasons, this may include safety, efficiency, infrastructure, cost, capacity or noise abatement among a few.

If an airport or government entity fails to invest to meet the demands of airlines through infrastructure upgrades, it is common for a slot management system to be legislated. Slot management systems limit the amount of aircraft movements per hour, regulating the number of arrivals and departures for that airport. There are presently eight Australian airports regulated by slot allocation.

The amount of legislated slots varies, 80 slots per hour at Sydney airport (85 at peak period), or as low as 45-50 at Brisbane airport (52 at peak period). Sydney Airport Corporation Limited (SACL) published 2012 airport capacity figures revealed 39 per cent capacity unused, SACL also claim capacity demands using present infrastructure including planned enhancements will supply the airport with spare capacity through until 2045.

In a Department of Infrastructure and Regional Development report, passenger movement through Australian airports is expected to increase by 3.7 per cent a year over the next 20 years. A review of Sydney airport capacity reveals the 85 slot peak period will be exceeded by 2015. This report also goes on to say ultimately there are no long term infrastructure changes SACL can make at the current site to improve long term capacity.

Airspace constraints play a large role in efficiency for airport capacity. New infrastructure development is worthless if the traffic management system along with route design is not suitable.

- VIPA: enhance slot utilisation through more efficient design and use of air routes for arriving and departing aircraft.
- VIPA: use 0500-0600 and 2300-midnight shoulder periods at capital city curfew airports such as Sydney airport.
- VIPA: the view to support passenger number growth whilst maintaining current slot capacity is not supported due to significant shortfalls with airport infrastructure at many Australian airports. Gate sizes in many cases will simply not support larger aircraft.
- VIPA: a second airport site with sufficient infrastructure to support growing passenger numbers in Sydney is vital.

Arrival/departure route design

According to online travel technology company Amadeus, in 2011 Sydney-Melbourne was the world's fifth busiest travel route. The importance of engaging in good route design and utilisation is essential to the Australian aviation environment. Airspace and routes structure may be designed for a number of reasons, these include terrain avoidance, traffic flow and noise abatement. Aside from an inefficient slot management, poor airspace design is one of the major costs facing airlines within Australia. Jet aircraft will typically burn 40-60KG of fuel per minute. An air route will normally begin with a Standard Instrument Departure (SID), and finish with a Standard Arrival Route (STAR). Poorly designed SID's and STAR's create a number of inefficiencies. Unnecessary additional track miles mean an aircraft will be

airborne for a longer period therefore burning more fuel. Altitude restrictions within the SID/STAR are often utilised, this may be to descend or climb aircraft away from opposite direction traffic. However, in the process there can often be large thrust changes to meet the requirement, increasing the amount of extra fuel used.

Controlled Airspace steps can also be the enemy of an efficient descent in a jet aircraft. It is generally necessary to climb and descend an aircraft within controlled airspace, this affords the paying passenger the extra level of monitoring and therefore safety provided by constant ATC monitoring. Sydney-Melbourne route is an example where in order to maintain an aircraft in controlled airspace it is often necessary to make large thrust changes to stay within the Control Airspace step. Airspace constraints play a large role in efficiency for airport capacity. New infrastructure development is worthless if the traffic management system along with route design is not suitable.

- VIPA: seek industry consultation to enhance safe but efficient operation and design of SID and STAR.
- VIPA: seek industry advice to streamline Control Airspace Area steps.
- VIPA: continue to rollout navigation technology to further enhance airspace efficiency, such as SBAS, GBAS.

Airport infrastructure and services

The Bureau of Infrastructure, Transport and Regional Economics report 117 'Aircraft movements through capital city airports to 2029-30' has updated air passenger growth forecasts suggesting an increase of 4.2 per cent annual passenger movement. Essentially, passenger numbers are set to double. Most major Australian airports are now privately owned through a progressive sale process between 1997 and 2003. The controlling companies are mostly Australian Superannuation Funds. Sydney airport is 85 per cent owned by an ASX listed company. In 2010 Sydney airport revenue was \$901M, for the same period investment was \$227M (ACCC source).

The main area of concern for Australian airports to meet rising passenger numbers will be improving physical infrastructure, such as runways, taxiways, aircraft parking stands and terminal facilities. It is already common place to experience significant ground congestion at major Australian airports including movement flow delays on taxiways, apron congestion delaying aircraft pushback for departure and lack of vacant gates for arriving aircraft. Secondary issues include landside infrastructure, access roads, car parking, rail links and walkways. Approximately 70 per cent of passengers arrive at a major Australian airport by private vehicle.

Considering projected passenger growth for the next two decades, the capacity 'bottleneck' implications on roads along with public transport infrastructure will be extreme. Infrastructure barriers preventing airport growth are easily shown in the case of Sydney airport. Here the Department of Infrastructure and Regional Development has already found that there are no long term infrastructure changes SAICL can make at the current site to improve long term capacity. It has been found there is no option to increase capacity at

Sydney through new runways or extensive reconfiguring in the mid to long term, and in the short term legislative changes would merely postpone capacity pressures.

- VIPA: a strong case exists for a supporting development of second airport facility within the Sydney area.
- VIPA: airspace constraints play a large role in efficiency for airport capacity. New infrastructure development is worthless if air traffic management system along with route design is not suitable. Future air traffic flow technology must provide sufficient growth options, whilst enabling greater efficiency in the short term to allow an airport to operate as close to capacity as possible.
- VIPA: the view to support passenger number growth whilst maintaining current slot capacity is not supported due to significant shortfalls with airport infrastructure at many Australian airports. Gate sizes in many cases will simply not support larger aircraft.
- VIPA: airlines play a large role in managing the potential impact of future capacity. Airlines should be encouraged to seek new technology in equipment and processes, utilising larger more efficient aircraft designs, encourage technology breakthroughs to streamline aircraft turnaround times.
- VIPA: magnitude of growth forecasts clearly suggests that all major Australian airports will have significant infrastructure requirements over the next two decades. This infrastructure spending will need to be a collaborative approach with Government.

Navigation systems/Airservices

Airservices Australia is a government owned corporation, formed in 1995 to provide airspace management within Australia. Recent measures undertaken by Airservices to improve air traffic management and efficiency include Performance Based Navigation (PBN) technology, Advanced Surface Movement Guidance and Control System (A-SMGCS), and Air Traffic Flow Management. Future use of Ground Based Augmentation Systems (GBAS) and Satellite Based Augmentation Systems (SBAS) should be considered. In overseas examples such as US WAAS and European EGNOS have shown increased navigation accuracy and integrity, reduced delays and diversions, reduction in Controlled Flight into Terrain (CFIT) accidents. Cost reduction through reduced infrastructure requirements as an alternative to Instrument Landing Systems (ILS) has also been shown.

A white paper delivered in 2011, deemed the investment involved in establishing SBAS in Australia difficult to justify. The same review encouraged future consideration of SBAS if multi-sector demand improved. Agriculture, construction and engineering, rail, and maritime are examples of industry that could benefit from development of SBAS technology.

In its role overseeing airspace management, Airservices Australia is also responsible for providing Aviation Rescue and Fire Fighting (ARFF) services. The primary role of this service is to protect people and property in the event of an aircraft crash or fire during takeoff or landing. Of the 300 registered and certified airports within Australia, only 22 are currently provided with ARFF.

- VIPA: implement Long Range Air Traffic Flow Management system.

- VIPA: urgently review expansion of the current Aviation Rescue and Fire Fighting network to include all RPT turbo-jet destinations.
- VIPA: future implementation plans for widespread use of Ground Based Augmentation Systems (GBAS) and Satellite Based Augmentation Systems (SBAS) should commence. A multi-sector approach should be explored to provide feasible implementation to the aviation industry.

Service delivery

In the interests of reducing costs to the industry the government should consider adopting the FAA model of service delivery, whereby airport operators have the choice to put these services out to tender rather than relying on the monopoly government provider. This model also allows individual communities/airports to provide the service should they wish to have high capacity RPT aircraft use that airport with a more cost effective provider. Service standards and oversight can remain with the regulator.

7. Regulatory Cost Burden

The huge costs put onto the aviation industry at all levels from GA flight training to the airlines from onerous regulations, antiquated Air Traffic Control procedures and poor airspace design is overwhelming. Aviation regulatory reform in this country began its current journey in the early 1990's when it was decided by the government of the day to adopt the FAA regulations as they were recognised at the time as a suite of rules that were appropriately 'regulation light' for non-commercial aviation and progressively more stringent for fare paying passenger type operations.

Today, we are still yet to achieve what New Zealand, Indonesia and other jurisdictions have done, several years ago, by benchmarking their regulations to the United States. And, this is despite it being Australian government policy now for over 20 years. It is noted that in CASA's bid to roll out the regulatory reform agenda, in what can only be described as morbidly slow, we have reinvented the aviation wheel by several means, not least of which is to write the regulations under the strict liability principle.

In 2005, CASA introduced new regulations regarding the rules for flying in the vicinity of uncontrolled airfields purportedly to bring Australia in line with the FAA. Removing a 2 tiered system of CTAF and MBZ airports and using the FAA simplified 1tier system of CTAF only.

Through the regulatory change process Australia ended up with more or less the same 2 tired system that we started with albeit with different names, CTAF and CTAF-R. What is most concerning is that CASA's own post implementation review of the 'recommended' rather than mandated radio usage by aircraft at these uncontrolled airfields, yielded the same high levels of compliance and safety outcomes as that experienced by the United Kingdom, New Zealand, the United States and Canada, yet CASA subsequently made a rule to mandate radio usage at these airports.

Whilst this alone seems innocuous, it is typical of the regulatory reform process to date and when put into the context of strict liability, it means that where two airports lie in close proximity and at least one is a CTAF, a pilot will be liable to prosecution if they do not broadcast at least once on the CTAF frequency even if they are using their radio to talk on another CTAF or ATC frequency. It is patently absurd to treat pilots as criminals with strict liability penalties for breaches of the regulations where it is sometimes not possible to comply with them.

Most concerning in this process is the manner in which CASA seems totally directionless in the reform implementation. The Airspace Act 2007, mandates a periodic Airspace Policy Statement from the Minister. In 2009, during the Australian airspace reform process, the CEO of CASA had, in addition to the Minister's statement, issued a directive, it read:

“Aviation safety regulations must be shown to be necessary. They are to be developed on the basis of addressing known or likely safety risks that cannot be addressed adequately by non-regulatory means. Each proposed regulation must be assessed against the contribution it will make to aviation safety.

Where appropriate, the aviation safety regulations are to be aligned with the standards and practices of leading aviation countries, unless differences are required to address the Australian aviation environment and these differences can be justified on safety risk grounds. Where the standards and practices of the leading aviation countries vary, CASA will align its regulations with those that effectively address the safety risks in the most cost-effective manner.”

The Minister's policy statement read:

“Australian airspace management would be modelled on the US National Airspace System (NAS). This was to align our airspace classification system with the ICAO system and also to model our system on the proven US system. The National Airspace System changes have brought benefits to aviation in Australia, and the Government remains committed to its reform objectives, particularly greater flexibility and the allocation of air traffic management services on the basis of risk.”

This contradictory approach is just one example of many instances where the regulator has spectacularly bungled the regulatory reform process and indeed failed to deliver its own stated target outcomes. Each regulation CASA has tried to reform, it has managed to overly complicate and proves to be burdensome compared to its international counterparts in other leading aviation countries.

Another aspect of CASA and Airservices Australia's role that has proven to be a huge financial drag both of our international competitiveness and long term viability is the cost recovery program that both these agencies are subject to.

CASA as a regulator and Airservices Australia as a safety critical service provider, should be exempt from this government policy as it represents a significant conflict of interest for

safety outcomes in aviation and adds enormous cost burdens that other industries are largely exempt from.

User fees for Air Traffic Control are an enormous cost impost at all levels of the industry and are particularly onerous for smaller marginal and private aviation activities, which has the effect of discouraging participation of filing an IFR flight plan and flying IFR. Arguably this has a negative safety outcome if private and smaller operators are discouraged from using ATC services especially if flying VFR is done in marginal conditions.

Conclusion and Recommendations

VIPA acknowledges the important contribution that the many individual professionals in the Australian aviation industry make toward a safe industry. Unfortunately the industry has become extremely inefficient and increasingly frustrating for many of these individuals. Poor leadership and management at many levels of the industry, particularly by some of the government agencies have not allowed the industry to grow through liberalization of regulation and investment in infrastructure. Instead we are now faced with a myriad of poorly constructed regulations that do nothing to improve safety, increase cost to industry, and as shown in this submission have moved away from international best practice. To correct this situation, VIPA would like to see the Aviation Safety Regulation Review Committee consider the following:

1. The restructuring of CASA to provide a more consultative approach to regulation reform, adoption of more practical overseas regulations without too much medalling of these rules by the authority, and the centralizing of policy to prevent individual interpretation by regional offices or individual inspectors.
2. Improve the status, professionalism and morale of flying operation and airworthiness inspectors. This can only be achieved through a sound organizational structure, good leadership, and improving the professional status of FOI's and Airworthiness Inspectors. The flow on effect will be to attract a higher quality applicant for these positions, which in turn will help regain some of the lost confidence the industry has in the regulator.
3. Withdraw CAO 48.1 on the grounds that this new regulation is out of step with international standards and does not meet the ICAO SARP for FDP limits. CAO 48.1 does not effectively reduce pilot fatigue and can, under particular circumstances, lead to dangerous levels of fatigue in Australian airline and GA pilots.
4. Withdraw Part 61 on the grounds that this regulation, in many areas, does not comply with the requirements of FAA or EASA practices, which offer a more traditional and sound approach to pilot licensing. On the surface, this new regulation looks neat and well organized; unfortunately the devil is in the detail as was shown in this submission. Organizations, such as VIPA, must have real and effective input into the regulative process. At the moment there is a feeling in industry that CASA's way, is the only way.

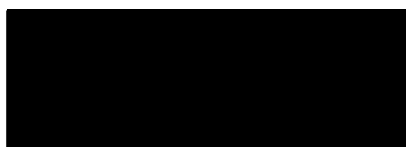
5. Once the restructure of CASA is complete, there should be a concerted effort to reduce red tape for the GA sector, as is currently being achieved in the UK. This can be completed through a simplification of both flying and aircraft maintenance rules. This should, however, not be at the expense of ditching the many sound practices that have been adopted over past decades. The principle of “If it’s not broken, don’t try and fix it” should be applied. This will also help Australia align to the traditional practices of the United States and Europe.
6. Many areas of critical Australian aviation infrastructure have declined through poor government support, however one of the most shameful examples is the level of funding for the ATSB. VIPA believes that funding for the ATSB should be increased substantially and without delay. A recent serious incident at Mildura, involving two jet transport aircraft, has seen the ATSB taking a leading role by announcing an industry forum to help identify and rectify systemic issues that led to this incident. This initiative by the ATSB, could turn out to be some of the most proactive aviation safety work seen in Australia for many years, which should be supported whole heartedly by the Australian government.
7. Governments should not become complacent when it comes to airport security. VIPA is very concerned about the introduction of full-body scanners both on health grounds and effectiveness. To the travelling public and politicians these machines look impressive, however some of the most effective security is what is not seen. Airport employees and the travelling public should have the right to opt out of full-body scans, which was recommended by the Australian Senate Committee enquiry and is the policy of the United States. This will become a frontline issue again, if the government decides to introduce full-body scanners at Australian domestic airports. Therefore, VIPA would look forward to discussions with the government at the very early stages of any such consideration.
8. Airport infrastructure and an effective air traffic system are vital to the safety and efficiency of Australia’s rapidly growing air transport system. The current outdated air traffic system and slow development of airports around Australia is causing large delays. These delays are impacting on airline commercial viability, the environment, and increasing airline and GA pilot fatigue levels. VIPA has made a number of important recommendations throughout this submission, including the suggestion to privatise parts of the air traffic system.
9. Cost burdens associated with regulatory reform delays, delays in modernising the air traffic system, writing regulations to a strict liability code, and not aligning our regulations properly with our overseas counterparts, is now imposing a huge financial penalty on Australia and the users of the system.

VIPA wishes the Aviation Safety Regulation Review Committee well with this important work. The importance of this ‘once in a lifetime opportunity’ should not be missed, and on behalf of all its pilots, VIPA looks forward to real and progressive change to bring our aviation systems in line with both Europe and the United States.

Members of the VIPA Executive and the Flight Safety, Technical, and Regulatory Compliance Subcommittee look forward to meeting with members of the committee to further discuss the many issues raised during the review process.

If you have any queries regarding this submission, please contact our Executive Director, Mr Simon O'Hara on 0400 188 815 or at simon.ohara@vipa.asn.au

Regards



Captain John Lyons
VIPA President