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Department of Infrastructure, Transport,
Regional Development and Local Government
GPO Box 594
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Email: aviationstatement@infrastructure.gov.au

To whom it may concern,

The following commentary represents the considered opinion of Civil Air in response to the request for input in developing a comprehensive National Aviation Policy Statement. Civil Air thanks the Minister and Department of Infrastructure, Transport, Regional Development and Local Government for the opportunity to provide input for consideration in the development of the green and white papers.

Civil Air represents 982 members directly employed in the provision of Air Traffic Services by the government's air navigation service provider, Airservices Australia. We are focussed upon developing a sustainable and safe aviation system within Australian airspace and those environments in which Australia provides services for other sovereign nations under contractual agreements.

It is my opinion that the current Air Traffic Control system is in crisis with staff shortages remaining the most immediate and obvious issue. This response is not restricted to staffing issues within Airservices but hopes to raise awareness across the broad range of matters within our purview. Should any clarification or amplification be required, please do not hesitate to contact us via the above listed details.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Mason'.

Robert Mason
President
Civil Air



General commentary:

Airservices Australia

Staffing

The lack of qualified Air Traffic Controllers in Australia is a very real and current critical threat to the Australia's Aviation industry. For at least six years Airservices Australia management have been advised by Civil Air of the looming staffing problem.

From a group of about 800 operational Air Traffic Controllers, human resources managers have advised that over 45% of the workforce is over 45 years of age with approximately 25% of that number over 55 years of age. This represents almost 320 operational controllers within 5 years of retirement (notional retirement average age is 52) and a minimum of 80 controllers that may retire at any time (those already over 52).

Airservices has claimed to have recently developed a "Workforce Plan", after claiming they previously didn't have such a vehicle. Civil Air has grave concerns that it does not place the required urgency towards recruitment and/or retention of air traffic controllers.

Airservices has stated publicly before the Senate Estimates Committee, and in media statements, that we have a shortage of operational controllers. This number varies between 21 and 100 air traffic controllers short depending on the source of the advice. Our association has formed the view that it is at the higher end of the scale.

The plans to recruit 90 trainees in 2008 (and later downsized to 80 trainees for 2008) appear to have not been realised and will not be met.

There are plans to recruit 100 trainee controllers in 2009. We hold concerns that these figures are overly optimistic as the current "Training Academy" resources, in terms of ATC instructors and simulator equipment, are not sufficient for such a training demand. Additionally there appears to be little evidence that the field units will be able to cope with such a large number of trainee graduates in a short time span.

It takes approximately 18 months from commencing abinitio (candidates without prior ATC experience) training to gaining an initial licence (being able to work solo), with another 2-4 years of training required to fully replace a retiring controller. Newly licensed controllers at most locations enter the workforce as a "Journeyman" (normally endorsed on one or two positions) and not as a Full Performance Controller (endorsed on up to 8 positions) like all retiring controllers.

Civil Air believes that the 100 trainee controllers per annum target, at a pass rate of 55% (the current average from abinitio recruitment to successful licensing); will just exceed the retiring controllers (conservatively calculated to be 40 per annum). This is extremely critical given that we are starting with a negative baseline position.

Civil Air expects that new ATC positions will also be required to facilitate traffic demands due to forecast growth in the aviation industry. New Tower services at busier regional locations will be required. (E.g. Avalon). Additional enroute and terminal positions will also be required to accommodate any new airports (which will also need new towers) or new runways (as detailed in both Brisbane and Melbourne airports expansion plans).

Additional enroute positions may be required to safely and effectively deal with increases in traffic flow in the short term particularly with the lack of ground infrastructure. The more airborne traffic is delayed the bigger the impact on system safety and the more harmful the effect on the environment.



Civil Air anticipates that the workforce would require with the assistance of technology, another 25 controllers per annum until 2025, without advanced enabling technology conservatively we estimate another 50 controllers will be required per annum. Airservices does not have a good report card of rolling out enabling technology within the forecast timeframes.

Civil Air believes that additional changes to airspace classifications, which are inevitable, will add additional pressure to staffing figures. As an example, changing Class G airspace to Class C airspace (at Avalon for example) will increase the likelihood of extra controllers being required. We also expect further changes in regional airspace with a trend to change Class G airspace to a higher classification which will also require additional staffing.

Civil Air believes that the ever encroaching global market will cause an increased staffing demand on our system as controllers terminate their Australian employment for the better conditions of employment that are on offer overseas. Additionally we would expect the majority of non Australians currently working as controllers in Australia on 457 Visas to return to their 'home' location.

We continue to see an increase in resignations over the last 18 months and this trend is likely to significantly increase as demand for qualified ATC staff rises. Nations such as India, China, various Middle East States as well as some European nations are experiencing high aviation growth and are all seeking non resident controllers; with employment packages getting more financially attractive every year.

In summary, we anticipate in the next 5 years we will see 200 retirements, 50 resignations to take overseas employment or simply leave the career, and 125 new controllers required in the system, all calculated conservatively. A total of 375 extra controllers will be required over the next 5 years. Remembering we are starting from close to 80 short, this means 455 controllers will be required in this timeframe.

The current workforce plan intends to recruit 100 trainee controllers per annum. This traditionally generates 55 rated controllers (a success rate of 55%); thus our recruiting plans will leave a conservative shortfall of 180 controllers by 2013 (455 short - 275 new controllers). The pass rate would need to be about 91% to manage the current staffing crisis to a zero net base by 2013; a feat never achieved by any ANSP worldwide.

Some areas of Air Traffic Control are undergoing their fourth managerial restructure in 24 months. Apart from the breaks in communication and management that these continuing restructures cause, one of the more recent restructures has resulted in approximately twenty staff being considered potentially surplus as Airservices Australia had insisted that the newly created positions were to be covered by Australian Workplace Agreements (AWAs).

At a time when excessive overtime is required to maintain Australia's Air Traffic Control service, Airservices Australia has created a situation where over 100 Air Traffic Controllers will no longer perform operational functions as they have been 'promoted' into non operational management positions. Yet still other Air Traffic controllers have been made redundant, a situation brought about as the direct result of the mismanagement of the last restructure and the introduction of AWA's.

In early 2007, Airservices Australia embarked on an international expedition to recruit overseas Air Traffic Controllers. This recruitment has resulted in only limited success for such an expensive exercise. At the same time that Airservices Australia management has introduced a restructure that makes some staff potentially surplus they have also been trying to recruit overseas staff, a situation that is both unfair and unreasonable.



The lack of adequate staff is a business continuity risk that is starting to have an impact on Airservices Australia's operations, resulting in controlled airspace service degradation or closures in both the major centres and regional approach and tower services. We have seen an over reliance on overtime and multiple airspace closures in recent months, all directly related to the lack of available qualified staff.

The provision of adequate staff (in both number and qualification), is a management responsibility. Breaks in service caused by low staff levels are also a management responsibility and not the fault of already overworked controllers who do not attend work on a day they are rostered off duty to prop up an under resourced and failing system.



Fatigue

Airservices Australia uses a fatigue management system called FAID[®]. This system is used to predict the risk of a fatigue event and is designed to be used in a strategic sense to develop rosters.

Airservices Australia uses the FAID[®] software in a tactical manner to assess short term staffing availability, contrary to the design specifications which state that the software is designed specifically for strategic purposes. Such tactical uses include changing the start or the end time of a particular shift by in some cases less than 2 minutes to achieve the 'right FAID[®] score'.

The FAID[®] software produces a numerical value that represents the risk of a fatigue event. The numerical value over which a person is unavailable is set by the operational organisation; in this case Airservices Australia.

The cut off should take into account the task to be performed, the environment and the risk mitigators available. Airservices Australia has globally set the value at 80 (rounded down from 80.4), which has been assessed externally as equivalent to a blood alcohol level of 0.05%. Civil Air is extremely concerned that 80 is deemed to be safe by the employer and subsequently endorsed by the Civil Aviation Safety Authority (CASA).

Airservices Australia's Air Traffic Controllers perform a number of different tasks, from quiet sectors to busy and complex sectors. Air Traffic Controllers operate in a number of different environments from large centres to single person control tower and approach operations.

Mitigators available in these disparate facilities range from direct support and supervision to a person being isolated and alone in a compound. Therefore the global fixing of a score of 80 as the benchmark fatigue risk value is a serious misuse of the software. A value of 80 may be the appropriate score in Melbourne Centre for a quiet sector on a night shift where there is other staff on duty and direct and immediate support is available in the event of a fatigue event. However, if this is the case it should not be the appropriate score for an Air Traffic Controller in Perth Terminal Control Unit on a night shift where there can be constant traffic, the Air Traffic Controller is alone in the compound and any mitigator is both distant and remote.

To reiterate: every night in Adelaide, Cairns and Perth, Air Traffic Controllers work for periods of over 6 hours alone and isolated with no provision for breaks. Airservices Australia has self-assessed the risk of a fatigue related event at these locations as being the same as at the major centres in Melbourne and Brisbane, where there may be a number of staff on duty.

Civil Air has argued since the introduction of Airservices Australia's fatigue management procedures that they do not satisfy the intent of "Beyond the Midnight Oil (Managing Fatigue in Transport)", published by the House of Representatives Standing Committee on Communications, Transport and the Arts in October 2000. Airservices Australia should be directed by the Government to place a much higher emphasis, by the introduction of a much more robust system, on fatigue management, in the safety critical aviation role that forms the basis of its business.



General commentary:

Civil Aviation Safety Authority (CASA)

Compliance

Civil Air is of the opinion that CASA needs to develop a culture of being willing to independently assess Airservices Australia's claims whilst maintaining a focus on upholding Civil Aviation Regulations, an opinion that Civil Air would expect to be supported by the broader aviation industry and travelling public.

It is not the job of a regulator to manipulate the interpretation of regulations or acquiesce to the demands of a business that, for craven profit pursuit or to cover up short comings in their management practices, seek to short cut or disregard the laws governing their operations.

As an example, within the past 12 months Airservices Australia management has instructed Air Traffic Controllers to operate on airspace sectors for which they are not qualified to provide short rest breaks within a shift. CASA has supported Airservices Australia's position, to use inadequately qualified staff to operate Air Traffic Control positions. Either a person is correctly trained and qualified or they are not. The situation currently endorsed by CASA is akin to a pilot qualified to command a Cessna 172 being allowed to be in command of a Boeing 747 while the pilot of the 747 has a short break. This situation is beyond what is allowed under the Civil Aviation Regulations and could only undermine the confidence of the travelling public if they were aware of the situation.

Civil Air has received legal advice that the related instruction contravenes Civil Aviation Regulations – specifically CASR 65.035. Civil Air knows of no other Air Traffic Services provider internationally that requires Air Traffic Controllers to operate a position for which they are not qualified, let alone an aviation safety regulator that sanctions the practice.

Civil Air has made representations to Airservices Australia on this matter, as we believe this is an issue critical to safety. Airservices Australia is making threats under industrial legislation and direct threats of legal action against individuals who resist implementing what is debatably an unlawful instruction.

Civil Air has also sought from CASA, on a number of occasions, a written legal opinion that the procedure does not contravene any Civil Aviation Regulation. So far CASA has being unwilling to provide this guarantee.

This and this alone is enough to show that CASA are dysfunctional in their role of safety regulator.



ATC Duty Hours

Airservices Australia treats duty hours as an industrial issue (a productivity issue). The only way that Australia's Air Traffic Controllers are protected from the excessive desires of management is through the collective agreement that covers our employment conditions and an easily manipulated Fatigue Management System which has been proven to have no realistic affect.

Civil Air calls on Government to instruct the relevant agencies that the rules defining Air Traffic Controllers duty hours must be specified in Civil Aviation Regulations and most definitely not be part of an industrial contract. Having Duty Hours defined in Civil Aviation Regulations, as many other nations do, will mean that they are scientifically robust with regard to safety and not dictated or managed by the strength of a particular industrial position.

Including Duty Hours for Air Traffic Controllers in the Civil Aviation Regulations will protect the travelling public from the excesses of an employer where profit is put before safety.

Legislated Duty Hours gives organisations such as Airservices Australia and other prospective air traffic service providers, a clear way of calculating the number of staff required when current and future requirements are determined.

The "Beyond the Midnight Oil" House of Representatives Report recommended that duty hours be defined and regulated by the regulator. Despite repeated approaches to CASA to have such a system implemented, CASA has continued to pay lip service to these recommendations by saying they are satisfied with the conditions covered in the certified agreement (between Civil Air and Airservices Australia). As these agreements are subject to amendment every 3 years, the conditions could easily change. This would then leave only a reliance on a fatigue safety management system introduced by Airservices Australia; which is easily manipulated and as such is ultimately leaving fatigue hostage to profit, operational expediency and managerial inactivity.

Action is required from CASA to avoid this issue become perilous to the safety of Australia's Air travellers.



Service Provision

The focus of Airservices Australia must be the continuous provision of a safe Air Traffic Control service in Australian airspace. This focus must come before all others including overseas business ventures. Adequate operational staff need to be the priority and this should have precedence over managerial restructures and projects that make no real difference to service delivery.

The continued Airservices focus on profit must at some point ultimately lead to corners being cut in this pursuit. To guard against a loss of focus on safety, there is a need for a dedicated CASA, willing to enforce the associated regulations and expose shortcomings.

By way of example CASA has so far not reacted in any meaningful way to airspace closures, despite the provision of an ATC service being a condition of Airservices for holding their operating certificate.

A far more robust system of regulatory oversight by CASA needs to be introduced in respect of Airservices Australia. As safety is the centrepiece of confidence in the aviation industry, Civil Air believes that this situation needs urgent attention.



The Australian Aviation Industry

1.1 International Services

Civil Air has no comment.

1.2 Domestic Services

Civil Air has no comment.

1.3 Regional and general aviation

Civil Air has no comment.

1.4 Addressing skills needs in the aviation industry

The lack of qualified Air Traffic Controllers in Australia is a critical threat to the Australian Aviation industry. For at least six years Airservices Australia management have been advised by Civil Air and others of the looming staffing problem.

Civil Air believes that the numbers of Australia's air traffic controllers will be further reduced by approximately 100 over the next 5 years. If new technologies do not eventuate or they fail to reduce workload then the system may be a further 200 short by 2013. Technology has always been flagged as a way of reducing controller numbers, when in reality new technology has led to growth but not reduced ATC numbers.

Civil Air believes that the government owned employer of air traffic controllers, Airservices Australia, must be directed by Government to take immediate steps to increase the retention of existing ATC's as well as making the entry positions as attractive as possible to ensure that the best candidates entering the profession. To not invest the necessary capital in training will result in Australia's aviation industry being subjected to further safety pressure as the ratio of aircraft to controllers will inevitably trend upwards.

At present ATC conditions are not 'internationally competitive' as evidenced by the recent departures of fully qualified staff to overseas positions. This situation would be further exacerbated except that for many remaining in Australia is essentially a lifestyle choice, not a financial one.

To be blunt, Air Traffic Control as a profession has been completely devalued by successive government's intent on using the service as a profit making organisation to contribute to consolidated revenue at the expense of investment in their both training and people. The government must direct Airservices to reverse this position. Perhaps corporate taxation concessions can be given to encourage this investment in skills. We have too often seen evidence of training as a cost rather than an investment. Training costs are always sought to be minimised and this is a situation that must be reversed.

As is recognised by all parties we are in competition with other vocations not only internally in Australia (mining industry) but also globally when attempting to attract suitable candidates to a profession.

Unless there is immediate action by Airservices in making the necessary investment into recruiting and training Air Traffic Controllers, including terms and conditions that attract top candidates, then it can be virtually assured that this vital piece of Australia's infrastructure will crumble.



Aviation Infrastructure

2.1 Airport planning and development

Civil Air is concerned that airport land is being utilised for non aviation commercial purposes to the detriment of aviation safety.

We have multiple examples of new buildings located close to runways generating mechanical turbulence over active runways with a given prevailing wind. We have multiple examples of buildings on airport lands that obstruct the views of other active runways and or terminal aprons or taxi-ways, from both a runways threshold and air traffic control tower view point.

Whilst there will always be commercial pressures to increase revenue from assets, to enable this at the expense of safety at the aerodrome is not within the spirit of the leaseholds.

We have seen navigation aids and guidance systems being sited in non optimal positions because of the unavailability of land (off aerodrome) or simply the airport 'owners' have not being willing to release the best position for the equipment due to other commercial revenue opportunities.

Conflicting interests between commercial revenue opportunities and safety appear to be tilted towards commercial revenue. By way of example negotiations between airport 'owners' and Airservices Australia over new control towers, many of which require urgent updating due to the existence of asbestos and the inability of current facilities to cope with the installation of new equipment, almost always end in the selection of non-optimal sites.

Safety must be paramount and whilst these things in isolation may be individually acceptable the cumulative effect on safety must be constantly considered.

Civil Air rejects the premise that the 'existing network of airports is coping'; we regularly see aircraft holding because of the lack of terminal space, or the lack of landing facilities. Whilst there may be a trade off between the expenditure of building and maintaining new facilities we believe many aerodromes have reached their capacity and are desperate for additional infrastructure. This is the responsibility of the Airport owner and it should not be able to be abrogated because of cost. Of particular mention would be Perth, Sydney and Melbourne where daily holding is rapidly trending upwards. Additionally airport facilities such as rapid exit taxi-ways can increase aerodrome capacity. Improved navigation aids such as CAT-III ILS systems can significantly reduce holding and diversions when visibility is at or below the operational minima.

Slot management needs a national system wide approach. We see the allocation of slots at above aerodrome capacity whilst on paper being within limits.

For example at Sydney airport the current system allows up to 80 movements an hour, yet in certain configurations such as 16 parallel operations, more than half the aircraft allocated a slot require or need to use 16R (either because of the type of operation or the lack of available airways to the applicable destination from 16L). As a result runway 16L is often under-utilised and there is a queue for 16R, which is operating at above maximum capacity otherwise intended under LTOP (i.e. 40 movements an hour per runway).

More pressure is added to the system with the A380 and similar types, as the acceptance rate behind an A380 is approximately 4 minutes, rather than the normal two to two and a half minutes, slot allocation must be adjusted because of these aircraft.



Civil Air is very concerned by capacity issues at Melbourne, Sydney and Perth, with little evidence of new runway infrastructure being planned before 2025. We believe that daily holding figures would represent a need for additional capacity sooner rather than later.

All aerodromes require some or more holding bays for aircraft either not able to enter the active runway or taxi-way system or for aircraft unable to enter an apron to disembark passengers. Modern overseas aerodromes often park aircraft away from the gate, without effecting aerodrome movements, but enabling any holding bay aircraft to re-enter the system in a quick manner when required; this is particularly evident when bad weather affects a particular aerodrome.



2.2 Air traffic management

Civil Air firmly believe that ‘artificial’ movement caps in capacity (such as Sydney airport’s LTOP) have little place in the modern world.

Air Traffic Controllers are often ‘blamed’ for delaying aircraft, yet they are simply ensuring compliance with various acceptance rates determined by various (often disparate) bodies. Often the greatest delays in our system are caused by the lack of runways on the ground, the lack of suitable runway exits such as high speed taxi-ways and the limited capacity to hold aircraft on the aerodrome clear of an unavailable gate.

New technology such as ADS-B will increase flexibility and increase optimal cruising level allocation, and reduce delays associated with climbing and descending, but will not improve the through put of traffic. The biggest impediment for aircraft delays are runways, not ‘airspace’ capacity.

Civil Air firmly believes in “ADS-B Out” to improve situational awareness and reduce workload, particularly in sectors such as those sectors that operate in Western Australia, the Northern Territory, Queensland and South Australia. “ADS-B Out” will increase surveillance, increase flexibility and adaptability of sector control and enable some controllers to be released for other priority tasks.

Civil Air estimate approximately 20 controllers could be otherwise allocated to other control functions given 100% ADS-B coverage and aircraft installation of ADS-B Out units. We would hate to see the delay in this project because of the lack of “ADS-B In” equipment, as long as there is capacity to upgrade when the technology issues are resolved. We believe that higher priority should be given to this project. It is imperative that the standards to be used are available, as well as the duplicated systems required to use the technology effectively.

Civil Air endorses the current plans for amendments to airspace classifications, provided that they are based on transparent risk assessment and cost benefit analysis. Too often in the past this extremely important issue has become a political football. Civil Air believes that this politicisation and a lack of consultation have led to numerous failures to implement a better system. There is also the significant issue of change management; we believe all attempts in the past 18 years have been effective failures because of the lack of education associated with change.

Civil Air is particularly concerned about some of the current ‘system’ designs, for example the 2.8 degree airspace modelling is neither efficient nor sufficient to meet the demands of a modern aircraft fleet. High lift low drag wings being installed in all modern aircraft need an arrival slope of much less than 2.8 degrees, particularly outside the landing configuration phase of flight. We see modern jets flying on the bottom of the CTA steps far too often, with VFR aircraft avoiding the steps by 500 feet, causing the need for traffic advice and often avoidance instructions to be issued to the commercial airliner because the crews are letting the aircraft fly efficiently.

The current system of airspace promulgation is an ill defined half way system. The main problem from an Air Traffic Control perspective is that the services to be provided in some classes of airspace are ill or under defined. Air Traffic Controllers and Pilots must be clearly aware of the service that is provided in a particular class of airspace. Of particular concern is who is doing what in the CTAF environment and what each party is expecting and is legally obliged to provide.

We still have significant concerns relating to frequency management and service provision near CTAFs. There is a potential difference in ATS expectations and pilot expectations whilst operating near (to or from) a CTAF. More education is required as soon as possible



to attempt to fix any potential incident before the situation deteriorates and an accident leads to a loss of life.

To minimise airspace capacity delays better surveillance is required, this should be improved through ADS-B Out and Wide Area Multilateration (WAM) equipment; it is significantly overdue; appropriate ATC standards are also required.

To minimise aerodrome capacity delays, better taxi-way design and extra runways must become available. If we want an aerodrome to schedule 100 movements an hour it must be capable and able to have 120 movements an hour; to be able to easily cope with system delays such as bad thunderstorms and or fog.

CAT-III ILS systems must be available at remote aerodromes or those often subjected to fog. We would suggest that at a minimum, Melbourne, Canberra, Sydney and Perth require this equipment or suitable alternate technology as soon as possible.

Australia must be able to adapt to international changes, the ICAO ATM operational concept, has many variations, both forecast and imagined; we must be willing to take a global lead on some of these issues. Particularly as change in Australia in essence, affects no other nation; we can easily be a global leader in aviation reforms, taking advantage of new technology when it is proven.

Civil Air would like to see regional Class D towers provided with significantly better equipment. Whilst Traffic Situation Awareness Display (TSAD) provides a 'radar like' feed, they can't be used for separation like a real radar position. A reliance on TSADs, comes purely from a financial basis as a remote radar display or TAAATS console like those used in towers like Sydney, Adelaide, Canberra etc. are available to regional locations.

At present ATM is provided by ANSPs worldwide, and most of these ANSPs charge "commercial rates" for the services provided. Many of these ANSPs are either privatised or are government owned commercial corporations or entities; as such they have a mantra to provide returns to their owner and generate those returns from the industry they serve.

There is potential of any charging regime to stand against the best safety principles. The money the airlines spend on ANSP charges could otherwise have been spent on modernising fleets, improving maintenance, improving staff wages and conditions, or simply lower airfares.

Similarly the ANSPs being required to return a 'profit' or dividend to their owners means that they too have 'corporate' pressures to cut spending costs in safety critical areas or technology purchases, or wages and conditions of employment.

When faced with revenue pressures in the past Airservices Australia has reacted in a typical corporate manner, reducing expenditure, reducing training costs and reducing technology spending, all of which have had a negative impact on safety and appropriate staffing.

In particular reduced training expenditure, whilst saving Airservices Australia significant amounts of money from 2001 to 2007, enabling it to meet it's 'corporate objectives', has had a significant effect on safety and the current lack of availability of air traffic controllers.

Civil Air calls on the Government to remove the profit imperative (return to shareholder) from Airservices Australia's charter. It is time that the Air Traffic control service of Australia is recognised as a vital piece of National infrastructure, and not relied upon as a cash cow for consolidated revenue. If a profit still exists it should be wholly utilised to allow vital resources to be devoted to fixing years of neglect.



Aviation Safety

3.1 Safety regulation and regulatory reform

Australia in many ways is a leader in aviation technology, reforms and administrations; recently proposed GPS standards are world leading. In so many ways we are tempted to simply follow what other 'more advanced' aviation nations are doing; but Australia must always be cognisant of our ability to enact and enable technology, develop and implement new procedures and equipment. We must be prepared to do the appropriate research for new standards and rules, rather than simply follow others who in real terms are often behind us; particularly relating to ATC and ATC standards.

We have seen projects and technology such as ADS-B, WARRP, WAM, GLS, RNP, UPRs, being implemented in recent times, often within the current rules. These rules are often antiquated and do not allow for the best use of the technology or modern aircraft systems.

We would like to see improvements in documentation, particularly in the main 'bible' documents such as AIP, MATS, and ERSA. These documents have been subjected to review and reduction in recent years. Primarily the 'how to' has been removed from the documents and simply replaced by the 'must do or the should do'. Previously "how to" do things were contained in the training regimes, but were also backed up with documented advice (practical examples) which could be drawn down from, to back up or correct the perceived intent; now when debate or doubt exists, there is almost no way to seek clarification.

We have seen multiple examples of rule breaks, without corrective advice from the regulator and or without prosecution, such as the PART 65 licensing issue pertaining to short-break procedures use by Airservices Australia. Additionally we would have thought that CASA would have at least written to Airservices Australia regarding the 50+ service breaks (TIBA or TRA) in 2007 asking for evidence of its ability to meet its staffing obligations under the CAR's.

We have seen reluctance to implement rules, such as Duty hours for ATC's, for no apparent reason, other than to place such issues in the too hard basket and have blind acceptance in Airservices assurances.

Civil Air contends that any regulatory reform must include a far greater oversight of Airservices Australia by an independent regulator than that which currently exists.



Customer and community protection

4.1 Aviation emissions and climate change

Australia has a poor cultural acceptance of wasting fuel in the aviation industry. We have overall poor airport designs, with many airports not having enough “on ground” infrastructure, high speed taxi-ways, on aerodrome holding bays and parking bays. Back tracking on runways due to poor taxi-way design is still a regular occurrence in Australia, as is a lack of low visibility equipment such as CAT III ILS systems and guidance.

There is and has been a reluctance to firmly regulate slot management.

We see on a daily basis aircraft getting airborne to join holding queues where better slot management systems and better aerodromes designs could have enabled ‘on ground’ delays as opposed to airborne delays.

This airborne holding is done for various reasons, including bad weather, fog, thunderstorms, strong winds, but mostly because the demand for arrivals exceeds the rate that landings can be achieved.

All of these issues lead to an increase in aviation emissions. None of these issues are particularly challenging to resolve, but involve the investment of resources, something that seems to have been sadly lacking in Australian aviation for the better part of a decade.

Sydney has a unique procedure called LTOP, which demands that given certain meteorological conditions certain runway configurations are used; built into the procedure is an allowance at which delays can cause a change and enable a higher landing mode at the aerodrome.

Under LTOP, when delays exceed 20 minutes a change of mode is permissible, but how this figure is calculated is very debatable. At present the easiest method of assessment is to utilise the MAESTRO (flow tool) information; this is only factoring in ‘airborne delays’.

We believe that in the current modern world, LTOP requires review; it is irresponsible for multiple aircraft to suffer up to 20 minute delays, for the sake of ‘noise sharing’, this obviously equates to massive CO₂ waste every day; not to mention the costs to industry for this, wasted fuel, and then the costs transposed to passengers because of this industry expenditure.

A proper SLOT management system, combined with better aerodrome design and facilities, could take account of this need to “share noise”, and balance the needs of the airport users and reduce airborne holding; if the delays are still required to ‘share noise’ they can be primarily managed on the ground; the movement cap at Sydney could be considered environmentally scandalous.

All airport curfews need review, curfews obviously have impact on emissions and as such climate change. Whether its aircraft waiting for the end of a curfew such as 6am every winter’s day at Sydney or aircraft operating in non economical configurations racing to beat the onset of curfew times. It is very disappointing to read in section 4.2 that no consideration will be given to ‘relaxing curfews’; they should be reviewed in light of environmental impacts, and to utilise better technology.

Much work has been done to enable ‘User Preferred Routes’ to enable better use of forecast conditions to minimise flight times and fuel burn, however, often the time ‘saved’ in flight is absorbed to enable landing outside curfew hours; ie the aircraft is scheduled to land at 6:05 am, saves 15 minutes enroute, but is assigned a landing time of 6:10 am; because of the pre 0600 curfew and it remains as number 4 to land.



We are also very concerned that staff shortages in Air Traffic control are adding to emissions/climate problems. Many delays are created, not because of aerodrome design or large numbers of traffic, but because controllers are short staffed or are unavailable. Where short staffing occurs the individual needs to be protected from normal 'high workload' so delays are created in the system tactically to protect those controllers from extreme peaks. Full ATC staffing will reduce delays significantly.

New technology, ADS-B, WAM, and new radar like displays, in remote locations would also reduce delays and 'interim' level assignments which often has a deleterious effect on fuel burn; this technology should be prioritised to save CO₂ and money.

Civil Air is firmly committed to reducing fuel burn, by offering direct tracking where safe to do so. 'On ground' holding must be better utilised to also help achieve this outcome.

Industry bodies, including Air Traffic control must come together, yesterday in reality, to proffer solutions which assist in reducing our aviation industry emission and the subsequent climate change.



4.2 Aircraft Noise

Civil Air believes that a total, nation-wide review of noise sharing, curfews and flight paths with new technology should be explored. We have a completely disparate system in relation to aircraft noise.

For far too long, noise sharing, movement reductions, curfews and flight paths have been motivated by political concerns; with politicians rarely standing up to 'noise lobby groups' particularly where safety is concerned.

We acknowledge that people affected by aircraft noise have rights; however, these rights should not be protected to the detriment of safety

Civil Air is very concerned about the rules relating to aircraft noise. It is an area that needs to be free of political consideration if an optimal result is to be achieved. It would at times appear that infringements to a given noise sensitive area are paramount and more important than the operational safety of aircraft.

The Sydney LTOP system is an example of a design that forces unsafe practices onto Australia's air travelling public in the name of "noise sharing". Often certain modes of operation utilise runways that have significant cross wind where a better runway option is readily available.

The noise footprint generated by increasing hourly movements would be offset by reduced movements in subsequent hours where demand isn't as high; the effect to the environment in increasing capacity would be incredibly beneficial in terms of CO₂ reductions. The current LTOP pushes the peak into other hours and spreads movements out over the day; where as if the movement cap was removed then we believe the noise intensity periods would be reduced in length, albeit, with more movements in the peaks.

Additionally LTOP was born in a period where all jets were very noisy; this has changed and will change further.

Noise abatable areas are historically based on 'aircraft weight' not aircraft noise. This is an archaic system that bears no resemblance to the actual aircraft noise produced by modern aircraft. With modern systems it should be easy to implement a low noise list of aircraft, to which aircraft noise impacts could be better managed.

We have multiple examples where aircraft are quieter than aircraft that are not subject to noise requirements. For example a BA46 will emit less noise or similar noise than a C441, yet a C441 may fly through most noise sensitive areas whereas the BA46 jet cannot; alternatively a SW4 must also avoid the noise sensitive areas based on MTOW, but it has the same noise "footprint" as a C441.

New aerodromes, or aerodrome facilities, such as new runways change noise footprints and forecasts. Often these amendments to forecasts are done without expert advice, procedures are developed without expert advice and rules are locked in which are either aviation unfriendly or not as safe as modern safety management systems should achieve.

Amendments to flight corridors are often done without expert advice, either the representatives of the various bodies don't include air traffic controllers or simply ignore the advice offered. It is vital when introducing new flight paths for new facilities, both arrival and departure paths, that ATC is at the very least consulted. We also have significant concerns about the ability to subsequently alter the defined areas or procedures once determined.

New technology such as RNP should be utilised as a method of 'sharing noise'. This would enable either the avoidance of noise sensitive sites, such as individual sites or general



areas. RNP arrival and departures procedures can be utilised to more readily avoid particular areas and can include both lateral and vertical performance and can incorporate thrust performance at the design phase. This allows these procedures to be much quieter in terms of avoiding ground infrastructure and utilising noise preferred thrust settings. Civil Air would encourage all airlines to utilise this type of technology.

RNP arrival and departure paths could be developed, for example, at Sydney where the aircraft arrive and depart via the Botany Bay heads (or other low noise impact areas) and thus have minimal impact on the surrounding suburbs; thus removing the night time curfew for aircraft so enabled.

However, we would like to see a set of standard RNP procedures (determined by the regulator). At present commercial pressures result in each airline developing their own RNP procedures; this is both difficult to administer in terms of who's avoiding what and how much space is required between aircraft performing in very different manners; particularly when integrating with non RNP aircraft.

Australia's Airports Curfews system is in serious need of review; the regulation of noise optimal runways is in our view dangerous and without sound basis.

Take a situation where an aircraft with dispensation to land between 5am and 6am at Sydney must utilise runway 34L, but the runway is wet and there is a slight down wind. The pilot attempts to land but then on short final decides that he/she must abort and go-around. The noise emitted by this aircraft will far exceed any noise otherwise emitted by a landing aircraft that is more stable and flying into a headwind (on 16R); yet this is considered acceptable for 'noise' reasons.

Another example is an aircraft that is "pushing" against the curfew such as at 11pm at Sydney. The pilot expects to land before 11pm, but at a few minutes before 11pm, they realise that they won't make 11pm, but will be 16 seconds late; thus they 'go-around'. This creates significantly more noise than they would have if they landed; all in the name of avoiding noise and complying with a 'rigid' curfew.

Again Civil Air can only state that it is very disappointing to read in section 4.2 that no consideration will be given to 'relaxing curfews'; they should be reviewed in light of noise impacts, and to utilise better technology.



4.3 Consumer Protection

Civil Air has no comment.

4.4 Disability Standards

Civil Air has no comment.

4.5 Compensation arrangements in the event of an accident

Civil Air has no comment.

Aviation Security

Civil Air has no comment.

