ALAEA

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Submission to the Joint Standing Committee On Migration

Inquiry Into Skills Recognition, Upgrading and Licensing

June 2005

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1. Preamble

The Australian Licensed Aircraft Engineers Association (ALAEA) represents certifying Licensed Aircraft Maintenance Engineers (LAMEs) throughout the Australian airline, regional and General Aviation industries.

The ALAEA welcomes the opportunity to respond to the Joint Standing Committee on Migration
'Inquiry into skills recognition, upgrading and licensing'.

The ALAEA commends the inquiry given the timeliness, appropriateness and relevance of conducting such a review with respect to current arrangements for overseas skills recognition and associated issues of licensing and registration. We believe it is essential that significantly more effort needs to be put into attracting young people into the aviation and airline industry throughout the world and, particularly, within Australia.

The ALAEA is concerned that the adoption and/or enhancement of measures designed to attract skilled overseas migrants into the Australian aviation market will, unless immediate and appropriate steps are taken in this country to address the growing industry skills shortage, merely defer the inevitable, further decline in the supply of skilled licensed aircraft engineers available to the aviation/airline industry in Australia.

The ALAEA would be pleased to appear before the Committee to answer any questions the Committee might have regarding this Submission and to provide further evidence and amplification if requested.

About the ALAEA

- *The ALAEA is an organisation founded in 1960 to advance the professional, technical and industrial interests of Aircraft Maintenance Engineers who are licensed by the Civil Aviation Safety Authority (CASA) to certify for work performed on aircraft within Australia. Currently the ALAEA has 4200 members employed in all sectors of the industry – in the major airlines as well as in regional operations and the general aviation sector.*

The motto of the ALAEA is:

"To undertake, supervise and certify for the safety of all who fly"

2. Executive Summary

Australian industry, State and Federal Governments need to be more pro-active in re-establishing apprenticeship training, assuring the younger generation and future generations, that aircraft maintenance engineering is a rewarding, fulfilling and worthwhile career path. Without a concerted and sustained effort involving industry stake-holders and Government, the aviation maintenance industry in Australia will steadily decline.

The ALAEA is alarmed at a continuing trend which sees airline and aviation companies, operating in an intensely cost-competitive environment, pushing regulatory boundaries unchecked in order to cut costs, often at the expense of sensible safety risk management.

The ALAEA has serious concerns that attempting to import skilled aircraft maintenance engineers will not solve the long-term problem. The major obstacle to attracting overseas skilled aircraft maintenance engineers is that there is not only a worldwide shortage of engineers, but the wages and conditions on offer in Australia are unattractive when compared with levels on offer elsewhere in the world aviation industry. Regional airline and General Aviation wages and conditions are sub-standard, therefore these areas have unaccepta high level of transitional employees.

Many airlines around the world are increasing their levels of out-sourcing of maintenance work, which poses further safety risks, and they are justifying their needs on:

1. the lack of a skilled workforce; and
2. the cost of employing such a skilled workforce.

The basic reasons for the shortfall of experienced licensed aircraft maintenance engineers are fleet growth, retirements of skilled personnel, attrition, costs of training and companies attempting to down-play the role and function of the licensed aircraft

engineer. When these factors combine with the trickle of new engineers entering the workforce, the inevitable outcome is that the industry is on a path to severe delays, disruption and dislocation.

The imperative to address the worsening skills shortage has never been more pressing. Governments, the industry and key stake-holders must work together immediately to address the fundamental structural issues which are allowing this crisis to continue.

3. Submission

3.1 Skill Shortages

Skill shortages exist when employers are **unable to fill or have considerable difficulty in filling vacancies for an occupation and/or specialised skills needs within that occupation.** Current low levels of remuneration and conditions of employment are significant contributors to skills shortages in the aviation/airline industry.

Recruitment difficulties are due to the characteristics of the industry, occupation or employer, such as relatively low remuneration, unappealing working conditions, poor image of the industry, unsatisfactory or unattractive working hours, remote locations not well serviced by public transport, inadequate recruitment practices or firm-specific and highly-specialised skills needs.

A document titled "Evidence of Skill Shortages in the Engineering Trades" produced by the National Centre for Vocational Education Research (NCVER) Ltd, in 2002, detailed:

"Skill shortages affect levels of production and increase the costs of recruitment and retention activities. They impact on the ability to be competitive, a factor that is increasingly important in a rapidly changing global market.

Skill shortages exist for many reasons:

- *strong employment growth causing increased demand for skilled workers*
- *factors affecting the supply of skilled workers, for example, attrition rates in apprenticeship and traineeship training and lower take-up of traditional apprenticeships*
- *demographic changes, in particular, the ageing workforce and impending retirement rates*

- *problems attracting and retaining people because of the poor image of some occupations and industries; community emphasis on higher education as opposed to vocational education; and poor salaries and working conditions*
- *changing employment arrangements, for example, casualisation of the workforce leading to a declining investment in training*
- *changing skills needs within occupations, such as those relating to new technology*
- *the demand for generic skills across a wide range of industries, for example problem-solving, communication, adaptability and literary skills*
- *cyclical factors such as fluctuations in training and the size of the workforce in many trades such as construction, and seasonal factors such as those that occur in agriculture".*

3.2 Worldwide Shortage of Licensed Aircraft Maintenance Engineers

The ALAEA is concerned that not enough is being done in the global market to increase the number of licensed aircraft maintenance engineers. With the rapidly ageing population of maintenance engineers, particularly in Australia, much more needs to be done to attract young people into the industry. At the March 2005 Avalon Airshow, a summit was convened by the Australian Aviation Council (AUSAC), '*to address key issues which will confront the aviation industry over the next decade.*' The summit concluded: '*Foremost among these concerns was the issue of human resources and industry skills, notably of flight crew and maintenance engineers. The growth surge coincides with an ageing industry population, where the average age of licensed aircraft engineers is in the mid fifties and the average professional pilot is aged in the late forties.*'

AUSAC President, Captain John Siebert, said: *"These are not problems which can be solved by quick fixes. Training professionals in these areas can take anything from four to seven years. As an industry we need to come to grips with this looming*

problem before it becomes endemic." The training period quoted is purely to gain a 'basic aircraft maintenance' licence but it takes considerably longer to gain vital expertise and experience on specific aircraft types (Group 20/21) [typically, pressurised RPT (regular public transport) passenger aircraft] that is crucial to the industry.

An article titled "Qualitair and the European Perspective on the Technician Shortage", written by Michael Donohoe, states: *'The world is running out of enough qualified aircraft maintenance engineers to ensure the proper servicing and safety of all those fleets of passenger and cargo aircraft criss-crossing the skies. Without enough qualified and experienced aviation engineers, there will be far fewer aircraft in the air. This will result in damage to both local and national economies. It is even possible that air safety may be compromised. Something has to be done, and done soon.'* Mr Donohoe goes on to add: *'The single, most fundamental, rock-solid and incontestable reason for the shortage of aviation engineers in the UK and the rest of Europe has been the short-sighted, cost-cutting policies of most aviation companies from the mid-1980s onward, in discarding apprenticeship and other training programs'.*

Mr Donohoe further states: *'And in none of these alternative careers (finance, marketing, and other white-collar jobs; or even, better pay packets as washing-machine or TV repairmen),does anyone have to put up with the overwhelming amount of regulation paperwork that is endemic in the aviation industry; not to mention the unsociable hours worked by engineers in aviation to keep aircraft in the air 24 hours a day'.*

How can skilled aircraft maintenance engineers be attracted to work in Australia when there is a world-wide shortage and wages and conditions here are lower than in many overseas countries?

3.3 Costs Involved in Training

The main reasons for the low number of young people entering into training to become a licensed aircraft maintenance engineer are the costs involved and the time to

complete the required training. Ongoing or recurrent costs are payable to CASA for licence renewal every two years and examination costs for Basic, Type Specific and general costs exceed those required to be paid by pilots.

Typically the work is 24 hours a day-7 days a week at the front line, facing deadlines and making critical decisions constantly. Maintenance Repair and Overhaul organisations (MROs) and small GA operators are usually Monday to Friday operations, however Regional, Domestic and International airlines operate around the clock every day of the year. The unsociable hours, combined with low wages and often poor conditions, are very unattractive to modern day youth.

Currently State and Federal Government assistance is available to studentshowever this is due to cease at the end of 2006. Centrelink assistance, such as living away from home allowance and travel assistance. is available to country students but it does not guarantee students will continue in the industry. Other significant factors come into play, such as finding a suitable employer.

Employers typically look for some level of knowledge and experience among entry-level Aircraft Maintenance Engineers (AMEs), and also require problem-solving and learning skills together with a positive attitude and good work ethic.

3.4 Skills Migration From Overseas

As has already been stated, there is a world-wide shortage of skilled licensed and unlicensed aircraft maintenance engineers and the rewards on offer in Australia are insufficient to attract highly skilled migrants. General Aviation within Australia cannot afford to pay rates which will attract and retain good quality aircraft engineers. Major mainline operators within Australia are consistently trying to drive down pay and conditions for their employees whilst reaping the benefits of burgeoning profits.

The reality is that major airlines within Australia (Qantas, Jetstar and Virgin Blue) are further endeavouring to erode the duties and responsibilities of the licensed aircraft

maintenance engineer, by passing a number of safety-related tasks such as 'Before, After and Turnaround inspections' to pilots, and inspections of aircraft panels around doors to baggage handlers at receipt and dispatch of aircraft at terminals. These tasks are an integral part of the work of the licensed engineer for which he/she has been trained over many years. To have employees who are not trained in Engineering carrying out these tasks is flirting with disaster.

The document previously referred to 'Evidence of Skill Shortages in the Engineering Trades', produced by the NCVER, (see section 3.1 above) states:

"Migration as a source of engineering skills

Migration of skilled labour is a source of skills that supplements the domestic skill base in the engineering trades.
DEWRSB reports that in recent years net migration of engineering tradespersons has fluctuated around 600-700, with arrivals of around 1900 partly offset by departures of about 1200. Thus migration is an insignificant source of skills for the engineering trades in Australia, a situation not likely to change. Even if governments were to open up immigration intakes, it is highly unlikely that such a policy would increase net intakes in a significant way because of the global demand for skills in the engineering fields.

The potential for increased migration as a source of new skills in the engineering trades in Australia:

- *Net migration is an insignificant source of skills for the engineering trades in Australia with about 700 per year (compared to a skilled trades workforce in this area of 217,000.*
- *Growing global demand for engineering skills means that migration is likely to remain an insignificant source of such skills for Australia in the future".*

3.5 National Interest - Security and Cheap Labour

Aviation security remains one of the most important standards Australia can maintain. Our safety record is testament to the excellent system of regulation we have enjoyed in this country. With strict adherence to the provisions in the Civil Aviation Act (CAA), International Aviation Security Policy through the International Civil Aviation Organization (ICAO) Aviation Security Panel and Industry participant awareness we can maintain the standards expected by the travelling public of Australia.

CASA has identified an ever-increasing average age of LAMEs (almost 60 years), and has highlighted the lack of future training programs currently in place or planned by significant industry participants. As it takes 8 to 12 years to produce an appropriately experienced engineer some government consideration of appropriate measures to address the worsening shortfall is clearly required and means to achieve this objective must be investigated as a matter of urgency.

In the short term, immigration of appropriately qualified personnel could alleviate the problem, however, for a longer term and more sustainable solution, the major airlines working with Government must establish more suitable training programs, whether in-house or by sponsorship of training organisations in each state of Australia. This process has begun in Australia but it is insufficient and the pace needs to be increased sharply.

The problem is also one of remuneration. Overseas airlines and foreign MROs are setting up and expanding at a rapid rate and, in order to attract appropriately licensed engineers, are offering far better packages than those available in Australia. As a consequence the task of attracting suitably skilled aircraft maintenance engineers to Australia is proving increasingly difficult.

Also with the difficulty in attracting skilled migrants, Australia must not lower its entry and/or skills level requirements in order to bring in additional labour. TIMCO, a MRO based in the USA, *'hired illegal immigrants because they are cheap'*. Among its staff TIMCO hired 27 illegal aliens who were all arrested by USA Immigration and

Customs Enforcement agents. "*There's no evidence that anyone who was arrested had malicious intentions but this represents a big security hole. Also, six of those arrested had actually managed to obtain FAA certifications, which means that they were empowered to clear aircraft for service after repairs. Evidently one alien appears to have lied about his experience and qualifications in order to get the 'Airframe and Powerplant' certification.*"

Licensed Aircraft Engineers undergo the most stringent security checks and this is for good reason. The need for LAMEs to have ready access to aircraft enables them unsupervised, unlimited exposure which, if abused, could be a serious national safety and security risk. The same must also be said of family members. Their influence on the Engineer, if improper, could have the same effect on national security. Stable family life has a profound effect on the mental awareness necessary to carry out work and perform functions in accordance with the privileges of an Aircraft Engineer's Licence. There are no such security checks carried out on unlicensed aircraft maintenance workers who are employed at MROs, including contractors around the world. It is only the licensed engineer who is heavily scrutinised. AMEs and Mechanics working for outsourcers do not have to be licensed - they are supervised by a licensed engineer.

CASA carries out surveillance on MROs both within Australia and overseas but the level of surveillance and direction differs significantly. Employees at MROs within Australia are not security screened and are not subjected to 10 year Australian Federal Police security checks as are employees requiring access to aircraft, tarmac and hangar areas.

What is most distressing is the fact that there are security gaps in how maintenance vendors operate given the less stringent background checks and requirements at such outsource facilities. Much like the passivity of governments with respect to protecting borders we can have all the security in the world for passengers entering aircraft, but if there are no checks and balances for crews maintaining aircraft outside borders, it may be in vain.

3.6 Licensing Requirements for Aircraft Engineers in Australia

CASA has in place regulations governing licensing of Aircraft Engineers in Australia. Civil Aviation Regulation (CAR) 31 Part 4 (a) to (e) stipulates the requirements an applicant must possess before being granted a Licence:

> *(4) In this regulation, **qualified person** means a person who:*
>
> *(a) has attained the age of 21 years; and*
>
> *(b) satisfies CASA that he or she possesses such knowledge as CASA requires of:*
>
> *(i) the principles of flight of aircraft;*
>
> *(ii) the assembly, functioning and principles of construction of, and the methods and procedures for the maintenance of, those parts of an aircraft that CASA considers relevant having regard to the licence sought; and*
>
> *(iii) these Regulations and the Civil Aviation Orders; and*
>
> *(c) satisfies CASA that he or she has had such practical experience of the duties performed by a holder of the licence sought as CASA requires and directs in Civil Aviation Orders; and*
>
> *(d) satisfies CASA that he or she is not suffering from any disability likely to affect his technical skill or judgment; and*
>
> *(da) satisfies CASA that he or she possesses sufficient knowledge of the English language to carry out safely the duties required to be performed by a holder of the licence; and*
>
> *(e) has passed such examinations as CASA requires to be passed by an applicant for the licence sought.*

The Civil Aviation Orders, CAOs, part 100.90 gives guidance on obtaining an Australian Aircraft Engineers Licence in cases where qualifications have been obtained overseas:

"6 GRANT OF A LICENCE

6.1 A licence may be granted to a person who complies with the following requirements:

(c) has passed the examinations and met the experience requirements specified in CAO sections 100.91 to 100.95 as applicable;

(d) has passed the Airworthiness Administration (AA) examination within the preceding 24 months.

Note: For the issue of an aircraft maintenance engineer licence readers must refer to regulation 31 of CAR 1988.

6.3 A licence may be granted to an applicant who is the holder of a valid licence with a rating equivalent to the rating sought, granted by the recognised authority of another country, provided that he or she:

(b) has passed examinations in Airworthiness Administration (AA) and basic technical knowledge as specified by CASA; and

(d) is able to read, write and converse in the English language.

Note: For the issue of an aircraft maintenance engineer licence to a person who holds a licence issued by the competent authority of any other country, readers must refer to subregulation 31 (6) of CAR 1988."

3.7 Aviation Security Identification Card (ASIC)

In addition to the CASA requirements set out above (3.6) and the issue of National Interest and Security (3.5) the applicant must also be eligible to hold an Aviation Security Identification Card (ASIC), which allows access to restricted airside areas where maintenance is conducted. The 'legislated' requirements are contained within the Aviation Transport Security Act 2004 Part 3 Division 3 Item 35:

*"35 **Requirements for airside areas***

1. The regulations may, for the purposes of safeguarding against unlawful interference with aviation, prescribe requirements in relation to the airside area of a security controlled airport.

2. *The following matters may be dealt with by regulations made under subsection (1):*

1. *access to the airside area (including conditions of entry, the issue and use of security passes and other identification systems);*
2. *the patrolling of the airside area;*
3. *the provision of lighting, fencing and storage facilities;*
4. *the identification or marking of the airside area;*
5. *the approval of building works within, or adjacent to, the airside area;*
6. *the screening of people, vehicles or goods for entry to the airside area;*
7. *the security checking (including background checking) of persons who have access to the airside area;*
8. *the movement, management or operation of aircraft, vehicles and other machinery in the airside area;*
9. *the maintenance of the integrity of the airside area;*
10. *access to aircraft (including unattended aircraft) from the airside area;*
11. *the management of people and goods (including the management of unaccompanied, unidentified or suspicious goods) in the airside area;*
12. *the management (including the sale or disposal) of vehicles or goods abandoned in the airside area.*

(There are guidelines available for obtaining an ASIC within the Department of Transport and Regional Services Aviation Security Facts Sheet on the department's website (DOTARS).)

3.8 Conclusion

It is imperative that we maintain the complete independence and unbiased authority of the Civil Aviation Safety Authority to regulate the industry and its participants to

ensure the highest possible levels of safety in aviation, in the public interest and to serve national security requirements.

The immigration of appropriately qualified foreigners is welcomed by the Australian Licensed Aircraft Engineers Association provided the legislative guidelines are followed and appropriate local training programs, including apprenticeship schemes, are in place.

The Australian Licensed Aircraft Engineers Association would welcome the opportunity to participate in any Government initiative into future training programs that may arise from this inquiry.

4. Recommendations

1. The ALAEA proposes that Governments (Federal and all States and Territories), in conjunction with the industry and key stake-holders, work cohesively together to address the fundamental structural issues to introduce, promote and enhance aircraft engineering apprenticeship training programs to help reduce the shortfall of licensed aircraft maintenance engineers in Australia

2. CASA have been undertaking a comprehensive review of Air Legislation and Regulations since 1996. This process should be completed with a view to closer 'harmonisation' of Australia's regulations with ICAO, European Aviation Safety Authority (EASA) and Federal Aviation Authority (FAA) regulations, **without diminishing Australian safety standards.**

3. Increased scrutiny and security checks of all participants in the aviation industry including employees at various MRO facilities both within Australia and overseas, contracting companies and, particularly, out-sourcing facilities.

4. The ALAEA strongly recommends to the Committee that Australian safety and regulatory standards should be maintained at a high standard at all costs. Any lowering of any standards in Australia would be prejudicial to the interests and well-being of the Australian travelling public.

5. References

- "Evidence of Skill Shortages in the Engineering Trades" produced by the National Centre for Vocational Education Research (NCVER) Ltd, 2002.

- Avalon Airshow Summit convened by the Australian Aviation Council (AUSAC), 2005.

- "Qualitair and the European Perspective on the Technician Shortage", as part of the Annual Salary Survey, European Supplement (http://www.nvlt.org/archief/Annual_Salery_Survey.htm)

- "TIMCO Arrests" – Aviation Outsourcing (http://www.aviationoutsourcing.com/timco-arrests.htm)

- Civil Aviation Regulations (CAR) 31 Part 4

- Civil Aviation Orders (CAOs) Part 100.90

- Aviation Transport Security Act 2004 Part 3 Division 3 Item 35.

6. Authorship

The ALAEA has formed a sub-committee to examine this issue and prepare a Submission to Federal Parliament's Joint Standing Committee on Migration:

The sub-committee members are:

Kevin Dadge – Qantas Regional Airlines Councillor (Federal Executive)
Frank Coglan – Qantas Airlines Councillor (Federal Executive)
Chris Ryan – ALAEA Industrial Manager

- Contact details as per cover page of this Submission.