



**National Aviation Policy Green Paper:  
Flight Path to the Future - December 2008**

**Submission to the Department of Infrastructure, Transport,  
Regional Development and Local Government**

**The Association of Professional Engineers, Scientists and  
Managers, Australia**

**March 2009**

*Professionals together*

## **Introduction**

1. The Association of Professional Engineers, Scientists and Managers, Australia (“APESMA”) is an organization registered under the Workplace Relations Act 1996 representing over 25,000 professional engineers, professional scientists, veterinarians, professional surveyors, architects, pharmacists, information technology professionals, managers and transport professionals throughout Australia in both the public and private sectors. We are the only industrial association representing exclusively the industrial and professional interests of these groups.
2. Within the Australian aviation industry, APESMA primarily represents professional engineers, information technology professionals, transport professionals and managers. Our members are employed by organizations including:
  - a) International and Domestic Airlines such as Qantas, Jetstar and Virgin Blue;
  - b) Airport Infrastructure organizations such as Sydney Airport Corporation, Melbourne Airport and Brisbane Airport Corporation; and
  - c) The Civil Aviation Safety Authority (CASA).

## **Terms of Reference**

3. The Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Anthony Albanese MP, has released a National Aviation Policy Green Paper seeking industry and community feedback to assist in the Australian Government’s development of a National Aviation White Paper, a comprehensive National Aviation Policy.
4. This submission is in response to the National Aviation Policy Green Paper, *Flight Path to the Future*, and is intended to be read in conjunction with APESMA’s *Towards a National Aviation Policy Statement Issues Paper Submission* made to the Department of Infrastructure, Transport, Regional Development and Local Government in June 2008.
5. This submission responds specifically to two sections of the Green Paper, *Flight Path to the Future*: section 1 – Aviation Safety and section 6 - Industry Skills and Productivity. APESMA notes the submission by the Australian Council of Trade Unions regarding other sections of the Green Paper.

## **Response to Section 1 of *Flight Path to the Future: Aviation Safety***

### **The Civil Aviation Safety Authority**

6. APESMA supports moves to strengthen CASA's regulatory powers and enforcement provisions if this contributes to a stable, robust, regulatory environment in which operators understand what they must do and what minimum standards apply without fear or favour. There is obviously much work to be done.
7. APESMA notes that the most effective way to achieve this is for CASA to demonstrably support enforcement work undertaken by staff unless there are compelling reasons not to do so. This goes to the heart of problems in maintaining a healthy, mature relationship with industry and meeting community expectations of a firm safety regulator. The message currently sent to both good and bad industry participants by the failure to provide such support to staff and follow through on enforcement action is that CASA is willing to sacrifice safety and regulatory compliance to limit potential complaints from industry. This is an abrogation of a duty to the flying public, the good industry participants and staff themselves. APESMA does not believe that this is what industry wants from the regulator. Regulatory provisions and enforcement provisions are only as strong as the will and capacity to use them.
8. APESMA stresses that enforcement activity and regulatory activity needs to be appropriately resourced in terms of financial resources and the qualifications of the staff engaging in technical and professional roles. APESMA is concerned by the reduction in such staffing over the last five years and the pressure that has consequently fallen on existing staff. This pressure is exacerbated when employees are stood down for attempting to follow through with enforcement action. Appropriate resourcing must also include a genuine commitment to both the funding of ongoing technical and professional training and the time resource to allow employees to participate in such training and development activity. It is not helpful when employees are told that they cannot take holidays because of resource limits.
9. Fundamentally CASA needs to be able to provide unambiguous strategic advice to staff and to key stakeholders and to be able to consult genuinely with internal and external clients. It is of concern within the aviation industry and within CASA that the upper management of CASA appear to lack some fundamental grasp of the reality of front line operations within the organisation and have been unable to provide clear strategic direction to staff.

## **Response to Section 6 of *Flight Path to the Future: Industry Skills and Productivity***

### **The Professional Engineering Skills Shortage and the Australian Aviation Industry**

10. The term “professional engineers” refers to university-qualified engineers who have completed a four-year Bachelor of Engineering degree (or recognized acceptable equivalent) and are eligible for admission as a graduate member of the Institution of Engineers Australia. Professional engineers working in the Australian aviation industry are primarily qualified in disciplines including Aerospace/Aeronautical/Avionics, Mechanical, Electrical, Materials and Civil Engineering.
11. In paragraphs 6 and 7 of APESMA’s *Towards a National Aviation Policy Statement Issues Paper Submission*, information on the impact of the professional engineering skills shortage on the Australian aviation industry was outlined. APESMA notes that even in the current global economic climate, the professional engineering skills shortage has continued to impact on the Australian aviation industry. The professional engineering skills shortage is expected to remain a serious issue into the medium to long-term.
12. The Green Paper, however, does not recognise professional engineering as an area in which skill shortages are being experienced within the aviation industry.
13. APESMA wishes to clarify that professional engineering is a separate occupation to aircraft maintenance engineering. Professional engineers must complete a four-year Bachelor of Engineering degree and meet the requirements for graduate membership of the Institution of Engineers Australia (in other words a different qualification to those required for aircraft maintenance engineering).
14. Professional engineers perform a unique role within the aviation industry. For example, only senior professional engineers can be authorized as Design Signatories (through an Instrument of Appointment (IoA)) for the approval of designs, repairs and replacement parts under the Civil Aviation Regulation 1988 (CAR 35/36). The Design Signatory’s approval is required, for instance, before a licensed aircraft maintenance engineer can commence specific work.
15. It is noted on page 153 in the “A Global Labour Market – Australia’s Arrangements for Skilled Immigration” section of the Green Paper that a number of aviation occupations are included on the Employer Nominated Skilled Occupation List, published by the Department of Immigration and Citizenship. APESMA notes that professional engineers of the aeronautical, civil, electrical, electronics, materials and mechanical disciplines are also included on this list.

16. It is incorrectly stated on page 153 of the Green Paper that aircraft maintenance engineering is the only aviation industry occupation on the Skilled Occupation List, and that specialist avionics and mechanical aircraft maintenance engineering is the only aviation industry occupation appearing on the Migration Occupations in Demand List. APESMA notes that professional engineers from the aeronautical and materials disciplines are included on the Skilled Occupation List, and that professional engineers from the civil, electrical, electronics and mechanical disciplines are included on both lists.
17. The professional engineering skills shortage within the Australian aviation industry is impacting on employers such as Qantas (see paragraph 7b of APESMA's *Towards a National Aviation Policy Statement Issues Paper Submission*) and CASA.
18. By way of example, despite increases in aviation traffic there has been a reduction in the number of qualified airworthiness inspectors, flight operation inspectors and professional engineers in CASA with little evidence of workforce planning. For example at Moorabin Airport, without any change to the level of work, there has been a thirty percent loss of staffing amongst airworthiness inspectors. This erosion of frontline staff puts particular pressure on remaining staff and limits the capacity for staff to take leave or participate in training programs (where available).
19. APESMA is unaware of any consideration of graduate, cadetship or traineeship programs at CASA despite the age profile of technical and professional staff. This is coupled with the absence of an implemented technical training program despite its importance in maintaining currency of qualifications and ensuring staff are abreast of the latest developments in the aviation field and can adapt to new technologies and procedures.
20. APESMA supports the Green Paper proposal that "the Australian Government reinforce with industry that it needs to be more pro-active in developing attraction and retention strategies and broader workforce planning, including... transparent workforce planning process to articulate future recruitment needs across industry sectors..." It is crucial that such planning be comprehensive and include all aviation industry occupations.
21. APESMA also stresses (with reference to paragraph 8 of APESMA's *Towards a National Aviation Policy Statement Issues Paper Submission*) the importance of appropriate and competitive *remuneration* in addition to "improved conditions and flexible working arrangements to encourage retention of key personnel..." in any successful attraction and retention strategies.

## Education and Training Framework

22. In the “Higher Education Sector” section (page 149), the Green Paper considers issues relating to the Bachelor of Aviation degree. APESMA stresses that issues relating to the completion of the Bachelor of Engineering degree must also be considered. Low completion rates for students commencing Bachelor of Engineering courses is one of the major contributing factors to the professional engineering skills shortage and its impact on the aviation industry.
23. Less than fifty percent of the initial enrolments in Bachelor of Engineering courses actually complete the degree. In turn, only approximately seventy-five percent of those who graduate end up in employment as professional engineers and within ten years of graduating only seventy percent of these persons are still in the engineering workforce. This means from initial enrolment to ten years post graduation, the drop out rate is such that only twenty-five percent of those who initially enroll are working as professional engineers.<sup>1</sup> This is occurring in spite of the Government’s efforts to assist students through the Higher Education Loan Program.
24. APESMA supports the Green Paper proposal that “the Australian Government continue to provide assistance to all Australian industries to address skills issues through the education and training framework...”. We stress, however that the Government must work both within the Higher Education Sector and with aviation industry employers to ensure effective workforce planning is matched with strategies in tertiary education.
25. As outlined in APESMA’s *Towards a National Aviation Policy Statement Issues Paper Submission* such strategies should include increases in the number of cadetships offered for engineering students (including appropriate strategies for recent school-leavers and mature-age students) and incentives for employers.
26. Further, APESMA urges the Australian Government to address the taxation anomalies that penalize employers for supporting their staff undertaking relevant tertiary training. For instance, the removal of Fringe Benefits Tax on HECS fees would provide a great incentive for the industry to develop programs that will encourage more suitable students into study in areas of priority.

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<sup>1</sup> Vines, J. (2005) Key Challenges Facing the Engineering Sector 2005-2010, 2005, Paper presented to Conference on Recruitment, Training and Retention for the Engineering Sector.

### **Further Discussion**

27. APESMA would welcome the opportunity to elaborate on any of the issues raised in this submission.

28. This submission was prepared by Alison Rose, Senior Industrial Officer, APESMA NSW Branch and David Smith, Director, APESMA ACT Branch.

29. For further comment, please contact:

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