

**Submission to:**

**Senate Rural Affairs and Transport  
References Committee**

*Inquiry into pilot training and airline safety*

**Summary**

There should be no change to the flight hours requirements for pilots, the focus should remain squarely on the competencies necessary to become a safe and proficient pilot. There is no evidence to support the view that hours equate to safety, there is however a good deal of evidence to support the use of competency. The changes made in the US were not as a result of any investigation or the provision of evidence. Our own major airline and Air Force provide sound examples of the use of competency versus a simplistic hours approach.

Better models for funding initial training are long overdue and should be addressed with some alacrity.

Regulatory change has been too long in the making and the delay is an indication of the issues surrounding the aviation authority. At the very least there is a need for a comprehensive review of the training and safety aspects of the industry.

**Submission**

*a. pilot experience requirements and the consequence of any reduction in flight hour requirements on safety;*

There is very well established evidence provided by a number of ICAO Working Groups directed specifically at this question. The findings of those Working Groups (formed under the ICAO Flight Crew Licensing & Training Panel to research the feasibility of a Multi-crew Pilot Licence [MPL]) are quite clear and unequivocal in their support of simulation and competency based training as a means of reducing the hours required to provide a suitably qualified pilot for the right hand seat of type specific aircraft. But for the untimely intervention of the Global Financial Crisis we would now have numerous examples of this training rather than the few who made it through before the downturn in international air travel resulted in significant shrinkage of pilot numbers.

The evidence that is available indicates that the mix of simulation and competency based training can and does produce safe and effective pilots. There is international recognition of the efficacy of competency based training, in particular that such training provides benefits not found in prescriptive hours based practices. It is also worth noting that Australia is recognised as a world leader in the development and application of competency based training in aviation.

Clearly to simply reduce pilot hours without introducing a replacement process would not enhance safety. However the ICAO Working Groups were quite clear that reducing pilot experience requirements in conjunction with bringing in stringent competency requirements linked to a clearly focused use of simulation would not result in a reduction of safety, and could be expected to contribute safer operations.

*b. the United States of America's Federal Aviation Administration Extension Act of 2010, which requires a minimum of 1500 flight hours before a pilot is able to operate on regular public transport services and whether a similar mandatory requirement should be applied in Australia;*

There is no evidence that a pilot with 1500 flight hours is any more “safe” than one with 1000 or 750. Experience is beneficial provided that it is in context – something which is unlikely to be the case if pilots were to be faced with chasing the hours to meet an arbitrary figure. The present situation where pilots gain the experience to be Captains by flying in the right hand seat provides experience in context.

This is practice followed by international airlines (including Qantas) and our own military. The RAAF has been placing well trained low time pilots on the flight deck large aircraft for decades.

There is no evidence to support the change proposed in the USA to introduce an hour minimum, whereas there is evidence (ICAO Working Groups) that better training will provide a positive safety outcome. Hours should never be accepted as substitute for competence - the focus must always be on the quality of the training. The focus in the USA would seem to have been on the machinations of a lobby group and not on the availability or otherwise of evidence to support the change.

The absence of evidence supporting an arbitrary hour requirement would appear to have been ignored the Congress of the United States in the formulation of the “Airline Safety and Federal Aviation Administration Extension Act of 2010” – we can only trust that a similar approach will not be taken by the Parliament of Australia.

Finally, care must be taken to ensure that the debate is not hijacked by those seeking better remuneration, or the protection of their own position(s). The debate and the outcome must focus on safety and be based on science and hard data not emotion or the scoring of cheap short-term goals.

*c. current industry practices to recruit pilots, including pay-for-training schemes and the impact such schemes may have on safety;*

Whilst the focus here is on pay-for-training schemes to gain type endorsements the question of pay-for-training has a far broader context for the aviation industry.

Where the individual has to pay, usually up-front, for training in order to gain employment there will always be the temptation to go for the cheapest option that achieves the desired outcome – a type endorsement. Low cost should not automatically infer low quality or a diminution of safety, however experience shows what is often the case is that the “depth” of training is absent and that the training meets the bare minimum of requirements with little or no focus on the acquisition of true competency. A true instance of gaining the hours without gaining the competence.

Provided the regulation is met pay-for-training will continue as there is no legal reason to change and the financial drivers will continue to generate “willing” trainees, no endorsement = no job. Stricter control of training providers may go some way to ensuring that the quality of training is maintained, but there are no guarantees. A change in regulation – requiring operators to provide the necessary training would be a start, albeit not a palatable one.

The deeper issue with pay-for-training lies at the very heart of the industry – the acquisition of the first professional licence. The cost to the individual of a Commercial Pilot Licence (CPL) and Command Instrument Rating ranges from \$55,000 to over \$100,000, the variation relating directly to the quality of the training and the equipment being used. Even at the lower end the cost of training is enormous when the initial salary for a pilot is less than \$40,000. Indeed for many there will be the additional cost of an Instructor Rating (\$16,000 to >\$20,000) a necessary means to catching that first job, usually as a casual paid only for hours flown and then at the minimum the Award will allow. Regardless of the pathway to journey for the new pilot is one of hardship and poor reward – borne in the hope that once sufficient hours a logged a position with an airline may be forthcoming. But, only after paying for a type endorsement.

For those fortunate to undertake their training/education through a university access to HECS and FEE-Help removes the immediate burden whilst imposing a very significant long term debt, in excess of \$110,000. Significantly more than the debt faced by a 4 year Engineering graduate, but with no greater benefits. More than 60% of Engineering graduates are employed in their professional capacity within 6 months of graduation – for aviation more than 60% of graduates are NOT employed in their professional capacity well beyond 6 months of graduation.

The underlying issue for aviation, and a long term issue for the nation, is that the rate of training of nationals is not keeping pace with the growing need for pilots. On average there are 485 new CPLs issued each year, a significant proportion of which to foreign nationals who return to their home country. In 2007/8 the Future Pilot Task Force identified that Australia required over 500 new CPLs per year to meet domestic requirements – clearly this is not occurring. If the need for a healthy aviation industry is recognised the shortfall in pilot training must be addressed quickly, and so must the cost burden.

*d. retention of experienced pilots;*

The retention of experienced pilots is management issue for operators, not governments – unless the operator is the Defence Force. During the early 1980s the RAAF negotiated directly with Qantas in an endeavour to stem the flow of experienced pilots from the Air Force to the Airline. There was not a positive outcome for the Air Force and a Pilot Retention Bonus was introduced – which also lacked success. Anecdotally the extant “Retention Bonus” would appear to be equally unsuccessful.

The simple message being that if the workplace and the benefits are not satisfying the individuals needs then the individual will look elsewhere for conditions which do satisfy those needs. It is not “Field of Dreams” but simply a case of *look after them and they will stay*.

*e. type rating and recurrent training for pilots;*

Although current regulations do not require Co-pilots/First Officers to hold the same level of endorsement/rating as that of the Captain the reality is that most airlines do. The same approach is required for recurrent training and again many airlines do require that both pilots undergo the same level of recurrent training. To do so is a safety orientated approach and airlines see it as such. The “bottom line” being that proper training, leading to appropriate qualifications and sensible recency are more important than hours.

*f. the capacity of the Civil Aviation Safety Authority to appropriately oversee and update safety regulations given the ongoing and rapid development of new technologies and skills shortages in the aviation sector;*

Good regulations and proper leadership from an organisation possessed of a positive culture are the basics for good safety regulation. Although “good regulations” (sound, understandable, relevant, consistent but flexible) are the desire of all they are yet to be achieved. We have only to look at EASA, the FAA or Transport Canada to see that their regulations are like the Curates Egg – good in places, not so good in others. To persistently look elsewhere to “improve” our regulations denies any local capacity to develop and implement what is needed locally and has served only to delay the long overdue reform of tired and dated regulation.

Regardless of the nature, or state, of the regulations the key factor underpinning the safety of aviation is the willingness of the nation, through the aviation authority, to provide for proper surveillance and audit to ensure the correct use and application of those regulations. Taking a “systems approach” may

be useful an academic sense the reality would seem to be that timely surveillance and audit of compliance is more appropriate to ensure a safe environment. Aviation is a safe means of transport, but it is bedevilled by the twin issues of risk and cost. Where the level risk taken is determinate of cost the danger will always be that the less scrupulous will reduce cost through the acceptance of increased risk. This approach may be satisfactory in some sectors (Warbirds, Experimental), but it is not acceptable where those being put at risk are often unaware of the situation e.g fare paying passengers, trainee pilots. Accordingly, there is real need for government to make the commitment to the community at large and ensure that the aviation authority applies inspection and oversight essential to the safety of aviation.

For Australia this will require a change in CASA's stated policy - to focus surveillance on the upper end of the industry – the carriers of fare paying passengers. There should be no argument that such a focus is appropriate and necessary, however this should not result in a severe reduction in the focus on the entry level of the industry. Although there is no specific evidence to support a view that reduced surveillance of training operations has been a causal factor in the “drop” in standard and general quality of new pilots – the perception that this is the case is difficult to dispute as the timings tend to align. The link between training and performance is well known and accepted and it behoves the government to ensure that the aviation authority is keeping a close watch on the quality of the training being provided to the pilots who will be responsible for the safety of future fare paying passengers.

The latest CASA Briefing (26 October 2010) contained the following statement from the Director  
*“As many of you would know the Federal Government's Aviation White Paper set a requirement to finalise the update and modernising of our safety regulations by the end of 2011. I am confident we are on track to finish the drafting of the regulations to meet this timeframe, which is good news for everyone in the aviation industry.”*

Those amongst us who hoard such things will have access to similar statements from previous “Heads” of CASA making similar claims an invoking direction by government for their actions. The pity is that the timeframe for these various deliveries stretches back over some 10 to 20 years (depending on how you determine the start of the current Regulatory Reform process).

With such a timeline and history there can be little wonder that much of industry no longer waits in hopeful anticipation of CASA being capable to catch up with the past – let alone “...oversee and update safety regulations given the ongoing and rapid development of new technologies...”.

Having a reputation for name changing (there have been quite a number since the mid 1960's) runs a poor second to the change reputation that our aviation authority sorely needs – the ability to make the cultural change necessary to ensure an organisation capable of development and action that will keep pace with technology. This is not to deny that there have been changes as this is certainly the case – the issue is that the changes have been too few and seldom timely.

In an industry on the leading edge of technology aviation operators have to continually change to remain competitive and safe – the very least the industry should have is an oversighting authority that keeps in step. To have anything less is to compromise the safety of the community.

Given that this inquiry is unlikely to result in any great change to CASA (a change in government was equally unsuccessful) the least that should be achieved is the improvement in safety through a focus on training. In short, a comprehensive training needs analysis is required before anything is attached or tacked onto the existing regulations.

*g. the need to provide legislative immunity to pilots and other flight crew who report on safety matters and whether the United States and European approaches would be appropriate in the Australian aviation environment;*

Yes, there is a need to provide protection with the proviso that the approach should be ours not an import.

*h. reporting of incidents to aviation authorities by pilots, crew and operators and the handling of those reports by the authorities, including the following incidents:*

*(i) the Jetstar incident at Melbourne airport on 21 June 2007, and*

*(ii) the Tiger Airways incident, en route from Mackay to Melbourne, on 18 May 2009;*

*i. how reporting processes can be strengthened to improve safety and related training, including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010; and*

The changes proposed by this Bill would seem to cover off the reporting process. In general terms the existing process is sufficient provided there is no influence on individuals to amend or change and that reports once submitted must be progressed. A useful addition would be to allow the ATSB to use the outcomes of investigations to educate and inform the industry in a more formal manner – regular public forums being an option.

*j. any other related matters.*

That this Inquiry is even happening serves to highlight the need for a review of the aviation industry – in its entirety. History would indicate that an industry wide review is unlikely to be supported. Accordingly, the Committee should strive to provide a review with specific targets – for the good of the industry and the community these should be training and safety.

Stephen J Phillips  
Head of Aviation  
University of South Australia