

The Committee Secretary  
Aviation Safety Regulation Review  
Parliament House  
Canberra ACT 2600  
Australia

Dear Sir,

### **Aviation Safety Regulation Review Submission**

Thank you for the opportunity to provide this submission. I applaud the decision of the Minister for Infrastructure and Regional Development to establish this Review, it is both timely and necessary.

I have been an AOC Accountable Manager (Post Holder) under Australian, New Zealand and European (Irish) regulatory systems. In my opinion the Australian System, with its absolute liability provisions, creates a legalistic and adversarial relationship between operators and the regulator that is not healthy.

It is 14 years since the Civil Aviation Safety Authority's (CASA) commenced its Regulatory Reform Program and we have seen, to list but a few examples:

- Impulse introduce the jet operations with the B717
- Virgin Australia and Virgin International commence operations
- Ansett Australia and Ansett International cease operations
- Ozjet commence and then cease operations
- Jetstar commence operations
- Tiger Airways commence operations
- The following aircraft types enter service
  - ATR variants
  - B737-700/800
  - B777
  - B787
  - A330
  - A380
- Significant changes to air traffic density, particularly in the Pilbara

The aviation industry operates within critical economic margins that require optimum efficiency of resources and minimisation of costs. Response can well be the difference between survival and bankruptcy. Aviation legislation has to reflect the contemporary needs of the industry and this means the rules have to be continually reviewed to incorporate modern safety practices and new technologies.

While the industry has moved forward and sought to increase efficiency in its operations, progress of the Regulatory Reform Program has been disappointing creating skepticism, confusion and perceptions that, in most instances, are unwarranted.

The foregoing comment is not to suggest that failings in the Aviation Safety System are one-sided. An operator cannot simply stop at compliance with safety regulations in satisfying their duty of care to provide a safe operation. The most effective means of achieving a positive safety outcome involves the development of a cooperative working relationship between the regulator and the operator.

Despite being relatively small, the Australian Aviation Industry has a plethora of representative bodies with no clear peak body. For example, there are 40 organisations represented on the CASA Standards Consultative Committee (SCC). In addition, there are other organisations and individuals who operate outside the SCC with direct representations to the Regulator and/or the Department.

*To state the obvious, co-operation works best in an environment where all parties behave in a professional manner. I have been troubled by some very determined positions on the competence, credibility, vested interests and difficult personalities that are rumoured to populate both the regulator and the aviation community. I have seen examples of unproductive communications and less than helpful observations. These are not the hallmarks of a mature participation. It is important to step out of the sandpit and apply the disciplines of mutual respect and professionalism. Where these are lacking all participants should, at the very least, demand common courtesy of each other. Without that, the best designed of processes will fail. This is critical; a safety culture requires discipline.*

This statement can be found in the Scholtens Report<sup>1</sup>, a *Review of Participation of Interested Persons in the Development of Ordinary Civil Aviation Rules* conducted in 2002 by Mary T Scholtens QC on behalf of the New Zealand Minister of Transport. With little or no amendment, this could be applied to the Australian Aviation Industry today.

### **A risk-based regulatory regime**

The following statement with respect to the Australian aviation legislative framework was set out in Australia's State Aviation Safety Program January 2011

*Australia is committed to developing its regulatory requirements in harmony with international best practice. Legislation and regulations are, as far as practicable, consistent with the standards and practices of leading international aviation regulatory authorities.<sup>2</sup>*

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<sup>1</sup> Mary T Scholtens QC, *Review of Participation of Interested Persons in the Development of Ordinary Civil Aviation Rules* 2002, pg 138

<sup>2</sup> Australia's State Aviation Safety Program, January 2011, pg 8

CASA has suggested that the Civil Aviation Safety Regulations (CASRs) with their *'supporting guidance material written in easy-to-follow technical language rather than legal language'* will enable *'flexibility as to how the aviation industry can comply with the rules'*<sup>3</sup>. I doubt this will be the case. The alignment with United States Federal Aviation Administration (FAA) rules means a 'command and control' system with detailed and prescriptive regulation. This is not flexibility nor does it align with the global transition to risk-based regulatory regimes.

In seeking best practice we need to be prepared to step outside our comfort zone and look to other regulatory regimes. In the Oil and Gas Industry, the Norwegian and US legal frameworks address many of the same risks issues however there are significant differences between the two systems. Since the 1980's, Norway's regulations have focused *'on promoting self-regulation by operators by directly requiring each operator to develop and apply an internal control system for reducing risks and preventing and responding to accidents, a system which reflects a sound health, environment and safety culture'*.<sup>4</sup>

The Civil Aviation Authority of New Zealand (CAA) has adopted a risk-based approach to regulatory oversight to align with the global transition to risk-based regulatory regimes. This is driven by the International Civil Aviation Organization (ICAO) requirement for States to implement a State Safety Program (SSP) that incorporates risk management and assurance components.

I would suggest to the Review Panel that CASA should terminate the Regulatory Reform Program and move to harmonise with the New Zealand and the Pacific Region by adopting the NZCAA Civil Aviation Rules.

With Ministerial support and a committed Transition Taskforce of proven achievers this this transition could be completed in a 24-month timeframe.

### **Skills and Capability in Aviation Safety Agencies**

In a submission to the Australian Senate Standing Committee on Rural Affairs and Transport, the CEO of the Australian Civil Aviation Safety Authority said,

*"CASA recognises that it faces challenges recruiting appropriately skilled and qualified people. CASA draws new employees from the same pool as the rest of the aviation industry, and competition for skilled aviation professionals is increasing in Australia, as it is elsewhere in the world. This growth in the industry will result in an increasingly competitive market for experienced and skilled people, both for the Australian aviation industry and for CASA alike".*

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<sup>3</sup> CASA media release - Thursday, 9 February 2006 - Regulatory reform program refined

<sup>4</sup> Corinne Bieder and Mathilde Bourrier, Trapping safety into rules: how desirable or avoidable is proceduralization? 2013, pg 73

Applicants for regulatory roles tend to be either ex-military personnel or retired industry persons who have a pension to supplement their income, or individuals who do not satisfy the recruitment criteria of operators. Flying Operations Inspectors (FOI) are normally not current on the aircraft they are supervising and may never have actually flown the real aircraft. Occasionally, they may not be familiar with the Standard Operating Procedure (SOP) of the airline because they have not previously participated in airline operations. In this situation, the FOI is reliant on past experience and skills to ensure that airline operations meet regulatory requirements and are consistent with practices and standards of equivalent airlines.

Engineers and inspectors in other disciplines employed by regulators also face the same situation of currency of knowledge versus developments in the industry. They are faced with attending manufacturer training courses to learn new highly complex systems in the same manner as the operator or airline. They too are often paid less than the airline personnel attending the course.

I believe it is time to approach this issue from another perspective. Why not second Flight Standards Pilots and Maintenance Quality Assurance Inspectors to the Regulator for set periods. It is possible and was done during the period I was the AOC Accountable Manager at Ansett.

With respect to the Australian Transport Safety Bureau (ATSB) and within reasonable budgetary constraints, it is not possible for that Agency to maintain a cadre of investigators with broad technical knowledge of the range and complexity of aircraft now operating on the Australian Register. This deficiency can be addressed through a panel of experts similar to the approach adopted by ICAO.

By adopting a 'military reservist concept', we could ensure that the regulatory agencies have properly qualified and trained resources.

I would be pleased to expand on the foregoing should the Review Panel so wish.

### **Interaction between Agencies**

In retrospect, I believe the Australian community would have been better served had the Miller Review been an Inquiry<sup>5</sup> rather than a Review.

The attitudes and actions of management can significantly influence the entire staff of an Agency and the manner in which they then interact not only with their peer Agencies, but also with how they interact with the broader aviation community.

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<sup>5</sup> Miller, Russell, ATSB/CASA Review 2007 - Report to the Minister for Infrastructure, Transport, Regional Development and Local Government, 21 December 2007, page 4

To refer again the Scholtens Report<sup>6</sup>,

*‘Co-operation works best in an environment where all parties behave in a professional manner’.*

While I am sure the United States Federal Aviation Administration and the National Transport Safety Bureau, and the United Kingdom Civil Aviation Authority and the UK Air Accident Investigation Board have issues, we don't see public displays of affront and contempt towards each other as we do in Australia.

I believe it is suffice to simply say, that the display we witnessed before the Senate Regional and Rural Affairs and Transport Reference Committee – Aircraft accident investigations 2012/13 hearings did little to inspire the Australian public's confidence in our Aviation Safety Agencies and I trust those involved have now *‘taken the proverbial Bex and had a good lay down’*.

### **Governance**

CASA. The Minister has already indicated the Government's commitment to increase the membership of the CASA Board and strengthen its aviation skills and experience. I understand he will be seeking to progress this matter through the necessary amendments to the *Civil Aviation Act 1998*.

ATSB. The former Bureau of Air Safety Investigation (BASI) was internationally recognized for the quality of its investigations and reporting. Since its integration into the ATSB in July 1999, the quality of air safety investigations in Australia has deteriorated. I concur with the statement by Senator Xenophon in his Additional Comments to The Report of the Regional and Rural Affairs and Transport Reference Committee Report<sup>7</sup>:

*“The ATSB has become institutionally timid and appears to lack the strength to perform its role adequately.”*

It is my opinion that this very important Agency needs to report directly to the Government (House of Representatives or Senate) and not through the Department for Infrastructure and Regional Development.

Furthermore, I believe that the Aviation Safety Regulation Review should endorse Recommendation 7 of the Rural and Regional Affairs and Transport Reference Committee<sup>8</sup> –

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<sup>6</sup> Ibid 1

<sup>7</sup> Rural and Regional Affairs and Transport Reference Committee Report May 2013, ISBN 978-1-74229-832-0, pg 144

<sup>8</sup> Rural and Regional Affairs and Transport Reference Committee Report May 2013, ISBN 978-1-74229-832-0, pg 53

*“That the Transport Safety Investigation Act 2003 be amended to require that the Chief Commissioner of the ATSB be able to demonstrate extensive aviation experience as a prerequisite for the selection process.”*

## **Education**

Education is essential in the aviation safety program if we hope to have an informed and safety-motivated aviation community.

I strongly support the CASA Safety Advisor Program. This Program takes the safety message straight to the coalface and the presenters are able to gauge the audience response and get a real sense of whether the information is making a difference. This is not the case when you post, email or place the information on a web page.

Currently there is nothing in the aviation industry to match this initiative and it is the only chance outside the Avalon Air Show and a few other conferences, such as Safeskies, where CASA and industry participants meet and exchange information in good faith.

However, being a CASA owned program there is suspicion within segments of the industry that it is *‘another way of CASA to watch us’*. Given that perception is reality, I believe the value of the program could be enhanced if it was outsourced to an independent and respected organisation<sup>9</sup>, with guidance from CASA, ATSB and Airservices Australia.

## **Compliance, Oversight and Audit**

I believe the Rural and Regional Affairs and Transport Reference Committee Report May 2013 demonstrated that our aviation safety agencies and the broader industry have not learnt from the lessons of the past. The Young (1993), Seaview (1994), Ansett (1994), Whyalla (2000) and Lockhart River (2005) investigation reports and the Senate report all identified lapses in regulatory oversight. While this must cause considerable embarrassment for the Regulator, the Industry should not be too quick to point the finger. There is another major issue identified in each report – organisational failure.

CASA is not accountable for AOC compliance, but that is the responsibility of the AOC Accountable Manager. Indeed compliance and golf have one thing in common, if you cheat, you fool no one but yourself. If you are exposed, you carry the accountability and stigma forever.

Should compliance be the central focus of Audit, or should we be looking to audit the things that really matter?

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<sup>9</sup> I believe both the Flight Safety Foundation and Safeskies would meet the independent and respected organisation criteria.

The system based audit approach is predicated on evaluating systems and processes by reviewing an activity across an organisation and looking for areas where there are inconsistencies or incomplete interfaces. In essence the approach is to follow a small number of transactions through the system from cradle to grave to prove its effectiveness.

In the report of The Royal Commission into the Longford gas plant explosion<sup>10</sup>, Esso's safety management system (OIMS) and the auditing of that system was severely criticized. *"OIMS, together with all the supporting manuals, comprised a complex management system. It was repetitive, circular, and contained unnecessary cross-referencing. Much of its language was impenetrable"*. As for the auditing of the system, Esso had conducted a major audit of OIMS less than a year before explosion. This audit failed to identify any of the problems which gave rise to the explosion, and in particular, failed to uncover the fact that the critical hazard identification process had not been carried out. The Royal Commission stated, *"it can only conclude that the methodology employed by the assessment team was flawed"*.

The failure of audits to identify problems revealed in post-disaster inquiries is unfortunately commonplace. Following the fire on the Piper Alpha oil platform in the North Sea in 1987, in which 167 men died, the official inquiry found numerous defects in the safety management system which had not been picked up in company auditing. There had been plenty of auditing, but as Appleton<sup>11</sup>, one of the assessors on the inquiry, said *"it was not the right quality as otherwise it would have picked up beforehand many of the deficiencies which emerged in the inquiry"*. In fact audits on Piper Alpha regularly conveyed the message to senior management that all was well. Appleton makes the following comment, *"when we asked senior management why they didn't know about the many failings uncovered by the inquiry, one of them said: "I knew everything was all right because I never got any reports of things being wrong"*.

Appleton went on to say, *"In my experience, there is always news on safety and some of it will be bad news. Continuous good news - you worry"*.

Appleton's comment is a restatement of the well-known problem that bad news does not travel easily up the corporate hierarchy. High quality auditing must find ways to overcome this problem.

Esso's Managing Director reported to the inquiry that the Esso audit had shown that most elements of the safety management system were functioning at level three or better. *"(Several elements of the safety system) were assessed at level 4, the highest assessment level"*, he said. He noted also that an internal review in May 1998, 4 months before the explosion, *"highlighted a number of positive results", among them, six months without any recordable injuries... high levels of near miss reporting .. and major risk reduction projects."* This was clearly the

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<sup>10</sup> Hopkins A. Lessons from Longford: The Esso Gas Plant explosion. 2000. Sydney: CCH Australia.

<sup>11</sup> Appleton B. Piper Alpha. In: Kletz T, editor. Lessons from disaster: How organisations have no memory and accidents recur. 1994. London: Institute of Chemical Engineers.

“continuous good news” which Appleton had said was a cause for concern. It indicated that Esso’s auditing was not of sufficient quality.

Over time, slowly and unintentionally, independent checks and balances intended to increase safety can be eroded in favour of detailed processes that produce massive amounts of data and unwarranted consensus, but little effective communication.

In his submission<sup>12</sup> to the Rural and Regional Affairs and Transport Reference Committee, Greg Marshall, Managing Director of the Flight Safety Foundation Basic Aviation Risk Standard (BARS) said,

*During 2009, a number of key resource companies came together with the aim of developing a better and more effective means of reviewing aircraft operations using a risk-based approach to a common standard. The BAR Standard was derived from a combination of existing standards employed within the sector updated to ensure they were contemporary. Importantly, these were derived from the lessons learnt from previous accidents experienced within the sector across all environments and conditions.*

He went on to point out that a BARS audit combined with an operational review by the BARS member organization of end-point high-risk activities produces an outcome that is a more effective means of identifying and reviewing key operational risks.

Risk-based audits build on the systems-based approach by focusing on the areas of high risk. They assess the threats or risks and then move to look at the procedures and processes to mitigate the risks.

I believe that regulatory oversight would be enhanced by moving to a risk-based audit approach and that the BARS program provides an excellent model.

Furthermore, I believe by moving to a risk-based audit system that elements of the CASA oversight activity could be outsourced.

## **Conclusion**

I would be happy to provide further information or a personal brief to the members of the Review Panel, if desired.

Trevor Jensen  


31 January 2014

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<sup>12</sup> Greg Marshall, Submission to the Rural and Regional Affairs and Transport Reference Committee, April 2013