Advancing the interests of our members and the profession

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By Electronic Transmission

Mr David Forsyth AM
Chairman
Aviation Safety Regulation Review Panel
Department of Infrastructure and Regional Development
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Our Ref: G40-0042

Dear Chairman,

SUBMISSION TO THE AVIATION SAFETY REGULATION REVIEW

The Australian and International Pilots' Association (AIPA) is the largest Association of professional airline pilots in Australia. We represent nearly all Qantas pilots and a significant percentage of pilots flying for the Qantas subsidiaries (including Jetstar Airways Pty Ltd). AIPA represents over 2,300 professional airline transport category flight crew and we are a key member of the International Federation of Airline Pilot Associations (IFALPA) which represents over 100,000 pilots in 100 countries.

AIPA, through its Safety and Technical Sub-Committee, is committed to protecting and advancing aviation safety standards and operations. We are grateful for the opportunity to make a submission to the Aviation Safety Regulation Review announced by the Minister on 14 November 2013.

The Terms of Reference

We note that the Objectives announced by the Minister are to investigate:

- the structures, effectiveness and processes of all agencies involved in aviation safety;
- the relationship and interaction of those agencies with each other, as well as with the Department of Infrastructure and Regional Development (Infrastructure);
- the outcomes and direction of the regulatory reform process being undertaken by the Civil Aviation Safety Authority (CASA);
- the suitability of Australia's aviation safety related regulations when benchmarked against comparable overseas jurisdictions; and
- any other safety related matters.

In formulating our submission, AIPA also notes from the intended outcomes some of the issues that the Minister has directed that your Report will address. As an overriding comment, AIPA has no hesitation in acknowledging that the task of aviation safety regulation is a thankless, often tortuous and never-ending task that cannot possibly satisfy every participant. We also recognise that the system of government (and the safety regulation subsystem) involves a complex web of interactions and compromises that few people understand and rarely come to accept.

Nonetheless, it should be abundantly clear from the tone, level and style of public debate and the various responses from agency heads that the relationships within the aviation safety community are fractious to a degree not apparent in other jurisdictions, particularly those of Canada, the UK and the US. Of course, not all of the noise is necessarily justified – from either side of the argument – but the very fact that you as Chairman thought it necessary to moderate the nature of submissions is sufficient evidence in itself to underline that improvement is required at all levels of engagement within the aviation safety system.

AIPA offers the following commentary on the basis of contributing to that improvement.

THE STRUCTURES, EFFECTIVENESS AND PROCESSES OF ALL AGENCIES INVOLVED IN AVIATION SAFETY

Which Agencies are Involved in Aviation Safety?

For the most part, the relevant agencies are taken to be the CASA, the Australian Transport Safety Bureau (ATSB) and Airservices Australia (ASA), with the Department of Infrastructure and Regional Development ("the Department") supervising the mix. Recent events have probably shone a stronger light on the Bureau of Meteorology (BoM) and its contribution to aviation safety. While we acknowledge the existence of high level coordination arrangements as set out in Australia's State Aviation Safety Program (SSP 12) published in April 2012, we have taken Defence to fall outside our remit for this review.

AIPA will discuss the civil agencies and their interactions in more detail shortly. However, it is our view that, while these are perhaps the primary agencies, there are interactions with other agencies that often have aviation safety consequences yet seem to 'fall through the cracks' because the primary regulator has fallen victim to a strong 'silo' mentality regarding agency jurisdiction. We believe that it is appropriate to raise these matters early in our submission so that they neither detract from, nor are obscured by, discussions related to the primary agencies.

Safety-related Consequences of Physical and Procedural Requirements Imposed by Agencies other than CASA

AIPA believes that this issue of secondary interactions comes about in two different ways: first, by assuming that other agency decisions in non-regulated areas have no safety consequences; or second, by presuming each agency works in a mutually exclusive space. Both options are evidence of a failure to apply risk management on a broad enough scale. Furthermore, we believe that the evidence reflects a workload management mentality by all of the agencies of 'responsibility avoidance' rather than a 'responsibility acceptance' that quite effectively creates holes in the fabric of safety management.

A typical example can be found in the recent NPRM 1213CS – Addition of Safety Based Requirements for Hardened Cockpit Doors. While apparently a somewhat innocuous

NPRM, the history reveals a different story and AIPA felt the need to address the matter in very direct terms. The relevant part of our response said:

> "AIPA is particularly disappointed to note the abrogation by CASA of its aviation safety responsibilities highlighted by this NPRM.
>
> Both the US FAA and Transport Canada references underline that those agencies clearly considered the certification, continuing airworthiness and maintenance aspects of the physical security arrangements considered necessary immediately following the events of September 2001. It appears that, despite requests from the Office of Transport Security to participate in the security rule-making, CASA declined to be involved despite the safety-related impact on flight operations.
>
> While we appreciate the potential benefits to flight crew from these proposed changes, we are also concerned that 10 years had to elapse before these issues were addressed. AIPA looks forward to CASA providing proper systematic consideration within more appropriate timeframes of the safety-related consequences of physical and procedural requirements imposed by agencies other than CASA."

There is a long history dating back to 1979 of international policy governing consideration of jammed doors, pilot escape and cabin crew access from/to the flight compartment. In the development of Australia's transport security legislation, the relevant agencies failed to consider the operational and flight safety implications arising from the installation of hardened cockpit doors. However, that failure was apparently not from a lack of trying!

From as early as 2003, the Office of Transport Security (OTS) identified the need for CASA to assist in the area of providing a safety perspective in the development of cockpit door security. Despite a number of invitations to assist, it is reported that CASA failed to provide OTS with any input. AIPA notes that OTS attempted to act on the safety and operational concerns that had been highlighted by some operators, including:

- On 6 May 2004, OTS sought a meeting with CASA to discuss a number of safety concerns;
- In June 2004, OTS requested advice from CASA on whether CASA had considered the issue of emergency egress from the flight compartment of certain hardened door-installed aircraft;
- The OTS sought advice from CASA on how the OTS might resolve the issue of emergency access to the flight compartment.

The ATSB published an investigation report on 05 January 2007 titled Aviation Occurrence Report 200504018 *Operational and flight safety implications of the installation of hardened cockpit security doors in passenger aircraft having a seating capacity of 30 seats or more*. The ATSB investigation reported that there was no evidence that CASA had responded to ***any*** of the OTS requests for support, despite the 2003 Charter Letter to CASA from the then Minister for Transport and Regional Services requiring a cooperative working relationship with DOTARS (OTS) on matters of aviation security.

Subsequently, in November 2009, CASA advised that it had established quarterly meetings with the Department of Infrastructure, Transport, Regional Development and Local Government to discuss the interaction of security and aviation safety regulatory requirements. However, it is telling that the NPRM dealing with the issue first raised in 2003 took until mid-2013 to be published.

The potential dangers of inadequate or totally absent risk assessment when it comes to jurisdictional overlaps and the 'responsibility avoidance' mentality are highlighted by another

example in which AIPA was directly involved: the utilisation of foreign-based cabin crew and pilots in domestic operations.

The Department of Immigration and Border Protection (DIBP) manages the Special Purpose Visas (SPVs) that allow foreign crewmembers to temporarily enter Australia. The Fair Work Ombudsman (FWO) ensures compliance with Australian workplace laws. CASA has a paucity of regulations related to flight attendants but is essentially interested only in compliance with the competency requirements and additionally, for the pilots, the licensing requirements. The Senate Hansard quite clearly documents the near impossibility of getting any of those agencies to act on allegations of the misuse or abuse of foreign-based flight attendants on Jetstar flights to the point where their capacity to safely exercise their roles was in doubt, due to language, training or chronic fatigue issues. Fortunately, both DIPB and FWO finally acted, as they have also done for the related issue of 'NZ' cadet pilots. While these issues were largely shrugged off as immigration and workplace matters, the reality is that the most immediate threat was to aviation safety, firstly through a competence and fatigue issue with the flight attendants and secondly through several 'human factors in the cockpit' issues with the pilots.

While these examples concern CASA, AIPA is quite positive that the theme applies equally to other agencies granted safety regulatory powers. A recent review of legislation applicable to pilots triggered by some implications of the *Quarantine Act 1908* confirmed the inconsistencies of current Commonwealth laws in how they relate to the duties and responsibilities of pilots. While not of itself a matter of safety, it does make it difficult in the first instance to make a consistent appraisal of jurisdictional boundaries upon which to conduct safety risk assessments.

Recommendation 1

AIPA recommends that the Minister for Infrastructure and Regional Development issue a directive to all portfolio agencies with safety regulatory powers that they must:

- have a formal program that identifies and assesses the safety-related consequences of physical and procedural requirements imposed by other agencies,
- proactively participate as aviation safety advisers in the rule-making processes of other agencies where there is a likely or identified impact on aviation activities, and
- maintain a public register of aviation safety risk assessments for commonwealth legislation relevant to the agency's regulatory powers and expertise.

How Many Aviation Safety Regulators Should There Be?

AIPA, in recognising the complexity of aviation safety interactions, also notes the widespread perception in the aviation community that Australia lacks transparency and independence in aviation regulatory decision-making. We also note that some of the allocation of aviation safety management responsibilities seems to have a greater historical element to it than otherwise might appear sensible.

An unnecessary by-product of the 'machinery of government' arrangements seems to us to be those arrangements that interleave quasi-independent service provision with statutory responsibilities such that an agency may well in practice be self-regulating. It was

previously the case that ASA was seen in this way, despite theoretically being regulated by CASA. The responsible area within CASA was commonly held to be a 'revolving door' for ASA employees, where it was suggested that no action would be taken that might jeopardise the CASA employee's acceptability to ASA as a future employee. AIPA was very pleasantly surprised by the revelation last year of clear evidence that CASA was acting as a proper regulator and holding ASA management to account for a number of compliance issues. We hope that both the clear separation of the service provider and regulator roles, as well as the appetite to properly regulate, continues.

On the other hand, it appears to us that BoM is a self-regulating service provider with an added complication in that it is responsible to a different department of State and Minister. AIPA considers the appointment of the Director of Meteorology as the designated Meteorological Authority for Australia to be an inappropriate allocation of authority and responsibility within a balanced and transparent aviation safety regulatory system. We believe that the relevant text on page 11 of the SSP 12 is misleading, since it implies that ICAO requires both appointments to be one and the same, yet paragraph 2.1.4 of Annex 3 to the Chicago Convention only requires that each Contracting State shall designate a Meteorological Authority whose role is to either provide or to arrange for the provision of meteorological service for international air navigation on its behalf.

The subsequent text in Annex 3 makes it clear that the Meteorological Authority is the regulator of the meteorological services provided. Without in any way commenting on the quality of BoM staff, AIPA believes that the provision of meteorological services should be regulated separately and independently from BoM as the service provider – the approach adopted by both NZ CAA and UK CAA.

Recommendation 2

AIPA recommends that the Machinery of Governments arrangements be altered such that there is a single aviation safety regulator with appropriate resources and that no aviation service provider, public or private, retains any regulatory powers or responsibilities. The single aviation safety regulator should be a portfolio agency within the Department of Infrastructure and Regional Development with direct access to the Minister.

The Department of Infrastructure and Regional Development

AIPA has a very sound relationship with the Secretary and his Executive and we remain most grateful for both the access and the advice we have received. Our relationship has been based primarily on the Department's role as the aviation economic regulator as well as the primary source of broader aviation advice to the Minister.

While we are aware that matters of aviation security fall outside the terms of reference, AIPA notes that there are programs administered by the Department, such as the provision of security at regional airports, which attract funding that in our view is disproportionate to the risk while other more safety-related programs such as runway and operational infrastructure upgrades go largely unfunded. While the Minister just announced a package of assistance to regional airports under the Regional Aviation Access Programme, the relative amounts are relatively tiny compared to the grants available to offset the cost impost of security screening.

The ATSB

In October 2012, AIPA made a submission to the Australian Senate Rural and Regional Affairs and Transport References Committee Inquiry into Aviation Accident Investigations (the "Pel-Air Inquiry"). The Committee's final Report is a vital document for the Review. However, we believe that our submission for the most part addressed a range of issues that remain directly relevant to the Review's Terms of Reference and we strongly recommend that you read it separately from the Senate's final report. It can be found at: https://senate.aph.gov.au/submissions/comittees/viewdocument.aspx?id=31a52199-58c6-4cd8-ad9e-646f2356b23a

For the present purpose, we do not believe that we need to quote large slabs of our Pel-Air Inquiry submission. However, the following brief synopsis will not do justice to the detail of the argument in our submission nor will it establish the full context. Subject to that caveat, what we said was:

- the ATSB report on the ditching was too little, too late to improve aviation safety as a result of that event;
- the standard of the report was the antithesis of that expected from the ATSB by the broader aviation community;
- the report appeared to have been rendered of little use by the dead hand of bureaucracy, which then raised questions about why that might have been the case;
- we questioned whether an over-emphasis on the "no blame" philosophy has overshadowed, if not obscured, the importance of the ATSB's primary role to improve transport safety;
- we then examined the seismic shift in the relationship between ATSB and CASA from the Lockhart River Coronial Inquiry and the publication of the Pel-Air report;
- the Miller Review was commissioned to redress the "serious, ongoing animosity between" CASA and the ATSB;
- Miller came from the law, which is all about allocation of blame and punishment, to review the relationship with an organisation that eschews those very tenets;
- Miller's recommendations were adopted by Government and the ATSB was pushed into the background;
- Miller, undoubtedly for all of the right reasons, stated:

  > "…Ultimately, the ATSB's contribution will be judged, not by the quality of its analysis, conclusions and safety recommendations per se, but by the influence those recommendations have on improving the aviation safety system."

- we didn't think it appropriate to judge ATSB against the inaction of those to whom the safety recommendations are addressed; and
- the ATSB became "institutionally timid" and essentially stopped making safety recommendation of any note, but enjoyed a vastly "improved" relationship with CASA.

While clearly AIPA's submission straddles the first and second objective of this Review, the reality is that the Senate Inquiry largely underlined that the effectiveness of the ATSB had largely been sacrificed in the interests of not upsetting CASA. Had the same Senate Committee inquired into the Lockhart River accident investigation, it is highly likely that it would not have been the ATSB that was side-lined in the aftermath.

AIPA maintains the view that the large scale adoption of the Miller recommendations has had the effect of negatively influencing the true intentions of paragraphs 12AA(1)(b) and (c) of the *Transport Safety Investigation Act 2003* (TSIA) by repressing the independence of the ATSB and suppressing holistic examination of the aviation safety system.

AIPA's submission specifically questioned whether CASA's role in the aviation system was being adequately scrutinised, but the harsh reality is that the same question could be asked in relation to any of the agencies directly or indirectly influencing aviation safety. Current knowledge, post the Senate Inquiry, suggests not.

AIPA believes that the ATSB has a very clear duty under the TSIA to independently and holistically examine the aviation safety system. Pandering to the ego or behaviour of any stakeholder is anathema to the principles under which the ATSB was established and AIPA strongly believes that the safety message should never be lost in the telling. We strongly support the notion of the ATSB as the watchdog of agency influence on aviation safety.

Recommendation 3

AIPA recommends that the Minister for Infrastructure and Regional Development issue a directive to the ATSB clarifying that paragraphs 12AA(1)(b) and (c) of the *Transport Safety Investigation Act 2003* require holistic examination of the aviation safety system, including the regulatory framework, and that cooperation and consultation with stakeholders must not be permitted to compromise the independence of the ATSB or the making of safety recommendations.

Nonetheless, AIPA recognises two important factors: first, the current generation of senior ATSB managers may find it difficult to step out of Miller's shadow; and second, the ATSB is not and never should be a routine auditor of the aviation safety system. AIPA believes that the latter function requires a Machinery of Government change to redress a number of aviation safety governance issues. We will elaborate on that proposal later in this submission.

In regard to the appointment of the ATSB Executive, AIPA is very conscious that 'profiling' has its limitations and that the key to success is very much about 'the right stuff'' and less about career paths. We will always have a preference for operational experience in executive positions of entities that have a profound influence on aviation safety, regardless of what type of entity is involved. 'Operational experience' includes experience as a safety specialist or as a regulator that can be shown to be appropriately proximate to the actual conduct of flight operations. AIPA recognises that there may be a need for appointments within the ATSB Executive for career public servants, but, subject to our 'right stuff' caveat, we have deep reservations about such appointments at any level above Deputy CEO (however designated).

CASA

The majority of AIPA's interactions with CASA are with Central Office and we have received little direct feedback from members about any transactions at Regional level.

At the beginning of this submission, we commented that AIPA has no hesitation in acknowledging that the task of aviation safety regulation is a thankless, often tortuous and never-ending task that cannot possibly satisfy every participant. However, we are well aware of extensive criticism in the public arena of the performance of CASA and its

employees and note that there is little evidence of the 'noise' subsiding. We noted that the relationships within the aviation safety community are fractious to a degree not apparent in other jurisdictions, particularly those of Canada, the UK and the US. In our view, that is sufficient to indicate that there is a problem that needs to be fixed.

In our analysis, relationships have been damaged as a result of two main factors: structure and behaviour. Unfortunately, the two factors frequently commingle in 'chicken or egg' scenarios, complicating the identification of appropriate solutions. While the complaints are invariably aimed at behaviour, it is often difficult to distinguish between individual and corporate behaviour when existing organisational structures do not adequately support behavioural management. Given the extreme pressure placed on CASA to finish off the regulatory review process that began in 1996, it is not clear how much of the current organisational arrangements will survive the making of the bulk of the remaining legislation. It seems reasonable to presume that there is currently a structural bias towards standards development work as opposed to operational support functions, but that that bias would reverse as the project finally draws to a close.

Unfortunately, the regulatory review process is not a binary event, in that rather than being 'on' or 'off', it is a long series of transitions from the old to the new. Equally unfortunately, such a series of regulatory transitions means that the structural need for undiminished operational support functions has existed from almost the beginning of the project. But do adequate operational support functions exist?

The closest industry parallel would be for an operator to introduce a new large aircraft type. CASA generally has stringent structural and resourcing expectations of the operator that are designed to ensure the continuity of system safety during the transition - expectations which are based on existing requirements specifically intended to produce a consistent and standardised product. The irony is that CASA seems unable or unwilling to apply the same model to itself.

AIPA suggests that the behaviour most often complained of by industry, that of inconsistent and non-standardised decision-making, is a product of a structure that inadequately or incompetently mirrors (if at all) the structure (i.e., the processes, procedures, organisational arrangements, systems and resources) demanded of industry. CASA cannot operate as a collection of free-styling decision-makers free of regulatory constraints – the industry reasonably expects consistent and standardised decision-making and we believe that it has the right to be free of unnecessary and indefensible cost burdens imposed by decision-makers who are exercising personal whims in the absence of any organisational supervision or constraint.

Recommendation 4

AIPA recommends that the Minister for Infrastructure and Regional Development requires the Director of Aviation Safety (DAS) to immediately develop, document and deploy equivalent systems (SMS, QMS, Initial and Recurrent Training & Checking, Operational Control, etc) to those required of a High Capacity RPT operator to ensure that CASA conducts its safety-related functions in a consistent and standardised manner and that CASA leads by example in aviation risk management.

AIPA very strongly believes that a fundamental tenet of regulation is that there should be no area in which CASA cannot clearly and coherently explain to industry stakeholders why, how and to what extent an activity is regulated and what is expected of stakeholders to

satisfy CASA that the identified risk is being actively managed. Unfortunately, we do not believe that this is currently the case.

AIPA believes that CASA should place significantly more emphasis on education and support by way of an extensive platform of Guidance Material (GM) and Acceptable Means of Compliance (AMC) documentation so that all stakeholders can benefit from less formal expositions of particular risks and their associated management than can ever be drawn from rigid prescriptive constructs in legislative instruments.

AIPA also notes that in previous times one of the richest sources of educational and explanatory materials was that of the various internal CASA Manuals related to the operational functions. Prior to the decision to rewrite them for web presentation by removing the bulk of detailed advice to inspectors, those Manuals served as the preliminary means of in-depth standardisation for front line CASA staff.

Recommendation 5

AIPA recommends that the Minister for Infrastructure and Regional Development directs the Director of Aviation Safety (DAS) to ensure that there is a much greater emphasis on the production of Guidance Material (GM) and Acceptable Means of Compliance (AMC) documentation to explain to the greatest practical extent why, how and to what extent an activity is regulated and what is expected of stakeholders to satisfy CASA that the identified risk is being actively managed.

The Part 145 and Part 61 roll-outs provide good examples of inadequate clarity and staff training, mixed messages and a general unpreparedness at regional levels to cope with the demand from industry for a tsunami of new and transitional approvals, permissions, authorisations and inspections that accompany such significant changes.

From our viewpoint, blaming the delay in implementation of Part 61 on the industry was indicative of an unacceptable regulatory arrogance. The problem was clearly one of inadequate change management by CASA. AIPA often is forced to take CASA to task about poor regulatory consultation due to a persistent absence of supporting GM/AMC documentation, insufficient consultation time and notification periods combined with excessive amount of documents required to be reviewed prior to working group meetings and inadequate allocations of time at meetings to properly review not only the draft legislation but how it will work in practice. We are sympathetic to the CASA staff who appear to be faced with multiple complex tasks and unbending deadlines and even to CASA managers who find themselves in a political corner to roll out the new rules, but in the end the responsibility for effective change management rest with CASA management.

The current prospect of continuously rolling out new rules to overwhelmed industry stakeholders and inspectors alike must be increasing the risk profile of the industry – and what starts out as compliance and financial risk has a habit of morphing into safety risk!

AIPA notes the common suggestion that Australia should abandon its new rules and just adopt someone else's rules, the current flavour being those of New Zealand. We do not see such a wholesale change being practical or in any way ameliorating the current issues with change management. Nonetheless, we do believe that there are clear lessons in change management to be drawn from the NZ experience. Additionally, despite a very similar legal system, it is instructive to observe the stark contrast in legislative approaches to drafting the aviation law – law which purports to manage identical aviation safety risks and

to comply with identical international obligations. Providing CASA implements effective standardisation and transparency mechanisms, do we really need to proliferate the extensive and complex prescriptive rules for aviation in Australia?

Recommendation 6

AIPA recommends that the Minister for Infrastructure and Regional Development consults with the Attorney-General to identify the differences between the Australian and NZ approach to aviation legislation and whether it is possible to shift the Australian legislation away from its current prescriptive state. Where it is possible, the Minister for Infrastructure and Regional Development should direct CASA to transition to the NZ style of regulation.

AIPA is concerned about the effectiveness of the Standards Consultative Committee (SCC). We view the SCC and its sub-committees in particular as serving a useful purpose as both a consultative mechanism as well as a transparency mechanism for "the development of regulations, standards and other associated advisory material." AIPA is also concerned that there are many specialist areas of aviation regulation where it is most unlikely that CASA has the expert resources to properly review and risk manage the implementation of new technology and techniques. This is one area that we see the SCC being particularly useful in assisting CASA to gain access to the best expertise and experience as well as to balance out competing vested interests.

The widespread adoption of the internet and the use of electronic forums has reduced the need for face-to face meetings, certainly for matters of detail. This appears to be the underlying reason why the SCC now meets only once per year instead of quarterly and why subcommittees such as the Flight Crew Licensing Standards sub-committee met as long ago as July 2009, despite the continuing development of the recently released Part 61. Other sub-committees have met more recently, but it is difficult for non-participants to gauge the usefulness of the meetings to both CASA and industry. Certainly, there appear to be mixed opinions from participants whether the current SCC arrangements are merely token consultation or an effective means of consulting across a broad range of issues.

The last review of the SCC arrangements was apparently conducted within CASA and led to the current arrangements. Given the recent experiences with regulatory implementation, AIPA is of the view that the arrangements should be reviewed independently of CASA, preferably by your panel, but otherwise by a panel of previous industry SCC Chairmen.

Recommendation 7

AIPA recommends that the Minister for Infrastructure and Regional Development appoints an independent reviewer to examine the effectiveness of the Standards Consultative Committee arrangements in meeting the expectations of CASA and industry stakeholders and the suitability of the arrangements as a consultative mechanism for the future development of aviation standards.

AIPA is pleased to be able to participate in a recent SCC task related to aviation medical standards and the review of the Designated Aviation Medical Examiners Handbook. AIPA's most frequent and often most frustrating interaction with CASA is through the Aviation Medicine Branch. The frustrations arise due to the inconsistent administration of medical clearances and certificates, the near impossibility of being able to talk to anyone about the administration processes and, most critically, what most members report as the CASA-

unique approach of disregarding practicing medical specialists' advice in favour of "risk-based" decisions made by non-practicing medical bureaucrats.

Most AIPA members have to competitively bid for flying with long lead times. Their remuneration is determined by how much flying they are allocated and continuing uncertainty about when a medical clearance or certificate will be issued is unhelpful when bid periods run for 28 or 56 days (with long cut-off periods prior to line allocation). AIPA accepts that CASA should quality assure the results of medical examinations and that some delays may be caused by CASA rejecting clearances granted by DAMES or requesting further tests. However, we get a lot of feedback from members where the rejection of clearance and the request for further tests (often at substantial cost to pilots) is not seen as reasonable by either the original DAME or the consulting specialists. In several cases, several specialists have had their advice rejected, at least initially, by a process that the Principal Medical Officer defends with a mantra of "evidence not eminence".

AIPA is most concerned about the immediate uncertainty caused to a member when the often expensive advice and tests are considered to be acceptable by DAMES and specialists but not by the Principal Medical Officer (PMO). Where else are they to turn? The problem is often exacerbated by the turnaround times, the best of which is 28 days, but as the applicant you will rarely be made aware that the clock has not started because some component of the required information is "missing", at least until you can break through the communication firewall to ask as to what point your certificate has progressed in the administrative sequence.

Recommendation 8

AIPA recommends that the Minister for Infrastructure and Regional Development appoints an independent reviewer to examine the performance of the Aviation Medical Branch of CASA in terms of reasonableness, timeliness and cost impositions on applicants for medical certificates against relevant national and international benchmarks.

AIPA believes that the inconsistent and apparently discretionary performance of CASA's functions extends well beyond administration and service provision into compliance and enforcement decisions. Evidence provided to the Senate, the Administrative Appeals Tribunal and to the Federal Court in various cases lends support to the perception that CASA will use all of its considerable resources to pursue certain operators yet choose to act as a non-punitive rehabilitation centre for others. Our primary function is to represent our members, who are almost exclusively pilots, and we were astounded by the evidence generated by the Pel-Air Inquiry regarding the stark contrast between CASA's actions against the pilot and the operator.

Our major concern is that CASA, who in our view should be leading the way in modern safety risk management, instead appeared to become a relic of 1950's "pilot error" thinking that totally ignored every advance in human factors and system safety management of recent times. The evidence showed a regulator who pursued a pilot in a series of administrative actions that appeared to far exceed the necessary demonstration of competence and was prepared at every opportunity to blame the pilot while in the background clearing the operator to resume similar flight operations in record time. AIPA finds it incomprehensible that CASA is apparently unwilling or unable to conduct enforcement activities in a balanced, consistent and defensible manner. Our members have a perception that CASA is reluctant to act against Qantas and Jetstar and that they, as

small but important 'cogs' in the Qantas system, will become the softest of targets for CASA enforcement action.

It is not within AIPA's capacity to re-establish the trust that should exist between CASA and the industry, but we recognise that it is perhaps the highest priority in repairing the aviation safety system. We offer two quite different proposals to assist in redeveloping a healthier relationship between the regulator and the regulated. The first relates to improving industry education and the second relates to the handling of complaints.

AIPA believes that CASA underemphasises the value of education as a means of improving compliance levels. Simply put, it seems eminently valuable to invest resources in clarifying expectations of knowledge, skills and behaviours, in verifying understanding and in establishing competence for as many roles within the aviation safety system as it is practical to achieve. In our view, the current system of CASA interviews of key post holders is an inadequate means of establishing confidence in safety management. We believe that CASA should look to the UK CAA model where many training courses are available to the public, some of which are intended for CAA inspectors and some of which are intended for industry post holders, but all of which provide transparency and enhance understanding of the aviation system.

AIPA believes that every person appointed to a key position within an organisation holding an Air Operators Certificate should have the benefit of a CASA-certified course or series of courses that removes any doubt about what CASA expects of them in maintaining and enhancing aviation safety. Similarly, we have previously recommended that CASA more broadly addresses the issue of risk management training within aviation by including relevant training modules in every level of licence and as a prerequisite for every safety sensitive appointment. Importantly, interested members of the public should be able to attend many, if not all, modules of CASA Inspector training.

Recommendation 9

AIPA recommends that the Minister for Infrastructure and Regional Development directs the Director of Aviation Safety (DAS) to examine the approach of the United Kingdom Civil Aviation Authority and other relevant regulatory bodies to the provision of aviation safety-related education and professional training courses for key aviation management personnel and other interested members of the public, with the intention of introducing an industry education program in Australia.

AIPA believes that the current approach to complaints management within CASA does not engender transparency or trust. We offered the same view in our June 2008 submission to the Senate Inquiry into the Administration of the Civil Aviation Safety Authority (CASA) and related matters and recommended "that the CASA Industry Complaints Commissioner be established as a separate statutory office and be given powers to investigate and report to the CASA board and Minister on complaints in regard to CASA administration." While the situation that lead to that recommendation has not changed, AIPA developed the view subsequent to the Pel-Air Inquiry that more substantial steps must be taken to try rebuild trust through transparency.

AIPA strongly supports Senator Nick Xenophon's recommendation and rationale for the establishment of an Inspector-General of Aviation Safety. We see that role as completely satisfying our requirements for independent handling of industry complaints, not only about

CASA but for all agencies that directly or indirectly affect aviation safety. We think it is important to quote the Pel-Air Inquiry Report (p144) and to reiterate the recommendation:

> 1.20 The committee also recommended the establishment of an expert independent panel to oversee the ATSB's investigations and reporting. Given the circumstances raised in this report, I believe there is merit in expanding the role of this panel to oversee the performance of both CASA and the ATSB as a whole. There is currently no system to measure the activities of these agencies in an objective manner, and the need for expert oversight and monitoring has been made abundantly clear.
>
> 1.21 It is my view that the panel should instead take the form of an Inspector-General of Aviation Safety. Such a body would have the appropriate resources, expertise and powers to oversee the ATSB and CASA to a greater degree. The current Inspector-General of Taxation would be an excellent model to follow as an independent office aimed at conducting systemic reviews and providing recommendations to government.

AIPA would expand the role to include the setting up of Expert Review Panels. We are currently in dispute with CASA over the consistency and extent of the science underpinning the CAO 48.1 Instrument 2013, the new fatigue management rules, and have sought agreement to the forming of a panel of independent experts to review the rules. We have committed to accept the outcome of such a review but there is no sign that CASA will participate. Similarly, AIPA suggests that an independent review panel of aviation and occupational medicine experts may be a solution to the "evidence not eminence" debate with the PMO. Establishing such expert review panels within the office of the Inspector-General of Aviation Safety would overcome any recalcitrance on the part of CASA.

Recommendation 10

AIPA recommends that the Government establish, as a matter of urgency, the role of Inspector-General of Aviation Safety, with the necessary powers, resources and expertise to oversee and independently review the activities of CASA, the ATSB and other relevant organisations to an appropriate level.

THE RELATIONSHIP AND INTERACTION OF THOSE AGENCIES WITH EACH OTHER, AS WELL AS WITH THE DEPARTMENT OF INFRASTRUCTURE AND REGIONAL DEVELOPMENT (INFRASTRUCTURE)

Much of the foregoing discussion has necessarily touched upon the relationships and interactions of the various agencies with each other. In our view, the relegation of both ASA and BoM to the role of service providers responsive to standards and performance requirements set by CASA as the aviation safety regulator would clarify their position in the aviation safety space. The main issue is the relationship between CASA and the ATSB and we believe that the following quote from our submission to the Pel-Air Inquiry (p26) remains apposite:

> "…On the other hand, the complete absence of ATSB commentary on the regulatory scheme and CASA's regulatory activities begs the question about the level of scrutiny now being applied to CASA.
>
> AIPA believes that the ATSB pendulum has certainly passed the middle. We are not saying that CASA is always wrong and, clearly, we are not saying ATSB is always right. What we are saying is that we can see no justification for the present silence when it comes to the regulatory framework and its application."

The widespread industry view is that ATSB has largely lost its way post-Lockhart River and post-Miller and is now subservient to CASA. As usual, the truth has now become irrelevant under the weight of perception. The reality is that someone needs to watch the watchdog and, notwithstanding the narrowly focused legal review mechanisms, that role currently can fall only on the shoulders of the ATSB.

AIPA views the unseemly public battle between CASA and the ATSB over Lockhart River to be predominantly a behavioural failure of CASA senior management but, most importantly, it was a major failure on the part of the Department in supervising two critical portfolio agencies on behalf of the Minister. To be fair to the Secretary, for whom we have the greatest respect, the outcome and the perceptions generated by the Pel-Air Inquiry were undoubtedly unexpected. Nonetheless, AIPA is of the strong view that the Secretary should advise the Minister that it is proper and appropriate for the ATSB to critically examine the role of the regulator and the regulatory framework as part of its functions under the TSIA and, furthermore, advise the Minister that it is proper and appropriate for CASA to expect and accept such scrutiny.

Mandatory Reporting

Another aspect of the relationship between CASA and the ATSB relates to the provision of data from mandatory reports made for safety purposes under the TSIA to CASA for enforcement purposes. We specifically and extensively dealt with this issue under the heading "The Fourth Term of Reference" in our submission to the Pel-Air Inquiry (see page 28 of https://senate.aph.gov.au/submissions/comittees/viewdocument.aspx?id=31a52199-58c6-4cd8-ad9e-646f2356b23a).

It later transpired that the ATSB did not intend to use the *Transport Safety (Confidential Reporting Scheme) Regulations 2013* as described, since that data was already being passed without fanfare to CASA under the auspices of the *Transport Safety Investigation Regulations 2003*. Hansard contains a number of passages that cast considerable doubt on just what information CASA was being provided by the ATSB and the extent to which the ATSB was being honest about what it was providing. AIPA came to the conclusion that the ATSB was only conducting token de-identification and was effectively acting only as a CASA letterbox for information which was self-incriminating to the extent that identification of the pilot was of trifling difficulty only.

On or about 20 June 2013, CASA and the ATSB issued a joint document titled "Safety information policy statement" that set out to clarify the exchange of information. It includes the following:

> "**Limits on use of information by CASA**
>
> CASA may use information reported under the mandatory scheme as the basis for informing its need to initiate its own inquiries in the interests of safety. However, CASA will not rely on the report in taking action unless it is necessary to do so in the demonstrable interests of safety and where there is no alternative source of the information practicably available to CASA.
>
> CASA will not normally recommend the institution of criminal proceedings in matters which come to its attention only because they have been reported under ATSB's mandatory reporting scheme. The exceptions will be in cases of conduct that should not be tolerated, such as where a person has acted intentionally, knowingly, recklessly or with gross negligence.
>
> In taking any action, CASA will afford affected individuals and organisations natural justice."

Of course, natural justice is a little hard to apply when your common law right against self-incrimination has already been abrogated administratively.

The statement goes on to note that "this policy is consistent with contemporary practice in leading aviation States", something which AIPA is not convinced is true in practice, and then attempts to rely on a misquoted Recommendation 5.1.3 from ICAO Annex 19 as justification for the information exchange. In the latter regard, neither CASA nor the ATSB attempt to explain the CASA view of what is "appropriate information", the real crux of the ICAO recommended practice.

AIPA is therefore of the view that the Review Panel should inform itself of how our normal benchmark regulators (UKCAA, Transport Canada, the FAA, EASA and NZCAA) deal with the subject of mandatory reporting and the reporter's rights, with a view to offering advice to the Minister on the validity and appropriateness of a mere promise not to misuse the information provided to CASA by the ATSB.

Recommendation 11

AIPA recommends that the Review Panel should advise the Minister for Infrastructure and Regional Development on the validity and appropriateness of the CASA/ATSB Safety information policy statement as an effective tool to balance the rights of the reporter against the need for CASA to support enforcement action.

THE OUTCOMES AND DIRECTION OF THE REGULATORY REFORM PROCESS BEING UNDERTAKEN BY THE CIVIL AVIATION SAFETY AUTHORITY (CASA)

AIPA is committed to participating in the regulatory reform process to the maximum extent that our resources will allow. Australia is in the middle of a regulatory review project ramp-up that is taxing both CASA's limited policy development capacity and the industry's ability to absorb the changes that are being thrown at them with underdeveloped support materials, undertrained CASA frontline staff and untested policy overlaps and interactions. But apart from the shift we proposed from the overwhelming pursuit of prescription to a greater emphasis on flexibility through more GM/AMC, the 'ship has sailed' when it comes to outcomes and direction.

AIPA will continue to try to achieve the best possible regulatory outcome within the current plan. Where we are unable to strike a balance or where we think the outcome will create a perverse outcome or where the legislation will provide a shelter for unsafe practices, such as is the case with the CAO 48.1 Instrument 2013, then we will make use of whatever processes we have available to us to redress the issues. On the other hand, if we support a particular outcome or direction as a result of extensive consultation and honest debate, we will use our industry presence to support CASA in furthering that outcome or direction.

THE SUITABILITY OF AUSTRALIA'S AVIATION SAFETY RELATED REGULATIONS WHEN BENCHMARKED AGAINST COMPARABLE OVERSEAS JURISDICTIONS

Such an omnibus regulatory comparison is beyond the resources available to AIPA. We appreciate the complexity of attempting to compare regulatory approaches when each is

fashioned against a backdrop of historical, legal and cultural development that makes our countries different. AIPA members' involvement in the work of IFALPA and ICAO emphasises the inherent difficulty in formulating a detailed response to this objective. For the most part, our expertise lies in analysing and establishing best practice in specific areas, rather than for whole regulatory systems.

ANY OTHER SAFETY RELATED MATTERS

In 2010 and 2011, AIPA provided extensive materials to the Senate Rural Affairs and Transport References Committee Inquiry into *Pilot training and airline safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010*. Those materials contained a large number of recommendations as a consequence of the issues involved and the way that the Inquiry itself evolved. As an aide to the Senate Committee, AIPA created a Compendium of our recommendations, which can be found at: https://senate.aph.gov.au/submissions/comittees/viewdocument.aspx?id=3ad8e867-5ae1-4041-9c03-5baf3243baf5

We reviewed this Compendium as part of our preparation and sadly must report that most of the recommendations remain unaddressed but equally valid today. The reason for bringing this to your attention is straightforward – it summarises a large number of areas that remain unfixed, unidentified or ignored. Those recommendations cross many of your terms of reference but not sufficient to be aligned. We therefore hope that they may be useful to you as trigger points when you are considering the mass of materials before you.

Thank you for your consideration of our submission and if you would like to discuss this further, please don't hesitate to contact me.

Yours sincerely,

Nathan Safe
President

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Attachments:

1. AIPA submission to the Australian Senate Rural and Regional Affairs and Transport References Committee Inquiry into *Aviation accident Investigations*, October 2012
2. A Compendium of Recommendations made to the Inquiry by the Australian and International Pilots Association *Pilot training and airline safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010,* 29 April 2011

Attachment 1 to
AIPA Submission to the Aviation Safety Regulation Review 31 Jan 14

aipa
Advancing the interests of our members and the profession

THE AUSTRALIAN AND INTERNATIONAL PILOTS ASSOCIATION
Submission to the Australian Senate
Rural and Regional Affairs and Transport References Committee on

AVIATION ACCIDENT INVESTIGATION

October 2012

Australian and International Pilots Association

About the Australian and International Pilots Association

Our Role

AIPA seeks to advance the individual and collective employment interests of its members, who are pilots working within the Qantas group. We do this both in the workplace and in the broader aviation industry. As well as providing legal and welfare support to our membership, AIPA has a broader interest in the welfare of all pilots worldwide. AIPA is the eighth-largest member of the world-wide federation of pilot bodies, IFALPA.

AIPA also provides passionate advocacy on safety and technical issues, both locally and internationally. The organisation frequently participates in regulatory, technical and government inquiries and forums, and is recognised by various government and quasi-government bodies as having a stakeholder interest in the Australian aviation industry.

There are many issues that arise in aviation where AIPA can provide input and guidance that is free of vested financial interests and not aligned with any commercial entities or business coalitions. This broad non-partisan advice can add significant value to both the process and the outcomes.

Our Affiliations

AIPA is a member organisation of the umbrella pilot representative body for Australia, AusALPA, and a member association of the International Federation of Airline Pilots' Associations (IFALPA). In the global context, IFALPA represents in excess of 100,000 pilots through over 100 aircrew organisations. IFALPA is recognised as a permanent observer to the ICAO Air Navigation Commission and, as such, participates fully in the technical deliberations of the Commission and ancillary Panels and Study Groups.

AIPA is also a partner of the OneWorld Cockpit Crew Coalition whose principal objective is to provide a co-operative forum for its member organisations to address matters of common interest affecting pilots within the airline companies who comprise the oneworld Alliance (currently Qantas, Aer Lingus, American Airlines, British Airways, Lan Chile, Iberia, Cathay Pacific, Finnair, Japan Airlines, Malev Hungarian Airlines and Mexicana) and their major codeshare partners.

Contact details

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EXECUTIVE SUMMARY

AIPA welcomes the opportunity to provide the Senate and the Australian public with our views on the current state of aviation accident investigations in Australia.

First Term of Reference

AIPA believes that the Transport Safety Report provides little or no insight as to the nature of the organisational, legislative and human factors surrounding the accident. We do not believe that the Report reflects the product expected by the industry in contributing to the improvement of aviation safety.

Second Term of Reference

AIPA believes that the Miller Review has resulted in the post-Lockhart River ATSB being diminished in its role to the point that it could now be described as "institutionally timid". The pursuit of, if not fixation on, "no-blame" reporting in combination with the Directly Interested Parties process may have contributed to this perceived outcome.

Third Term of Reference

Timely implementation of safety actions, particularly those directed to CASA, remains at the behest of the Secretary, Department of Infrastructure and Transport and the Minister.

Fourth Term of Reference

AIPA believes that the proposed Transport Safety (Confidential Reporting Scheme) Regulations 2013 represent an unacceptable legislative abrogation of the privilege against self-incrimination that will irreparably damage the free flow of aviation safety information.

Recommendations

AIPA makes no recommendation in regard to the First, Second and Third TOR.

In the case of the related issues of the proposed Transport Safety (Confidential Reporting Scheme) Regulations 2013, AIPA recommends they not be made until appropriate Parliamentary scrutiny has been applied to the legislative abrogation of the privilege against self-incrimination and the likely consequences.

AIPA also recommends that the legislative arrangements to provide a balanced approach to aviation safety reporting made by Denmark should be examined for their utility as a model for Australian legislative reform.

-- END –

SUBMISSION TO THE AUSTRALIAN SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT REFERENCES COMMITTEE

AVIATION ACCIDENT INVESTIGATIONS

Contents

INTRODUCTION

The Australian and International Pilots association (AIPA) welcomes the opportunity to provide the Senate and the Australian public with our views on the current state of aviation accident investigations in Australia.

As the Committee is aware, AIPA has frequently pursued issues of importance to the safety of aviation in Australia. AIPA provides a number of functions for and on behalf of its members and, in the particular case of our Safety and Technical Portfolio, we extend our efforts the broader range of aviation employment and activity. A good example of the latter may be found in our submissions[1] to this Committee during the Inquiry into *Pilot Training and Airline Safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010*. Included in those submission were some 95 recommendations for action across 12 different focus areas, including Risk Management, Pilot Fatigue Management, Training Standards, CASA (and ATSB) Staffing and Incident/Accident Reporting[2]. Given that there have been no significant improvements evident in the two years since that Inquiry, it is likely that we will have a great deal of work to do in order to maintain our enviable (but not world-beating) aviation safety record.

By its very nature, and particularly given the catalyst of the publication of the Report of Investigation Number AO-2009-072 "Ditching – Israel Aircraft Westwind 1124A aircraft, VH-NGA, 5 km SW of Norfolk Island Airport, 18 November 2009"[3], this Inquiry is focused on the aviation safety activities of the Australian Transport Safety Bureau (ATSB).

At the outset, we wish to reassure the Committee that AIPA has a long-standing commitment to support the ATSB in enhancing aviation safety in Australia and farther afield. To that end, the President of AIPA (Captain Barry Jackson) and the Chief Commissioner (Mr Martin Dolan) signed a Memorandum of Understanding (MOU) on 12 April 2010 for 'Cooperation and Support on Aviation Safety Investigations and Associated Matters.[4] AIPA has no wish to jeopardise its close and cooperative relationship with the ATSB, but feels that there are some concerns and justifiable criticisms that we hope the ATSB will accept as constructive and intended only to generate safety benefits.

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1 AIPA, Submissions 6, 6a and 6ss to the Australian Senate Rural Affairs and Transport References Committee Inquiry on Pilot Training and Airline Safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010

2 AIPA, Submission 6add2, *op. cit.*

3 ATSB, Transport Safety Report - Aviation Occurrence Investigation AO-2009-072 Final at http://www.atsb.gov.au/publications/investigation_reports/2009/aair/ao-2009-072.aspx released 30 August 2012, accessed 10 October 2012

4 ATSB, *Memoranda of Understanding*, at http://www.atsb.gov.au/about_atsb/memoranda.aspx accessed 10 October 2012

THE TERMS OF REFERENCE

"On 13 September 2012, the Senate agreed that the following matters be referred to the Rural and Regional Affairs and Transport References Committee for inquiry and report by 29 November 2012:

(a) the findings of the Australian Transport Safety Bureau into the ditching of VH-NGA Westwind II, operated by Pel-Air Aviation Pty Ltd, in the ocean near Norfolk Island airport on 18 November 2009;

(b) the nature of, and protocols involved in, communications between agencies and directly interested parties in an aviation accident investigation and the reporting process;

(c) the mechanisms in place to ensure recommendations from aviation accident investigations are implemented in a timely manner; and

(d) any related matters." [5]

Before we address the Terms of Reference (TORs), we should begin with a brief review of the ATSB and its functions.

HOW THE ATSB DOES BUSINESS

An Overview

The following overview may be found on the ATSB website as part of the "About the ATSB" pages:

"The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory Agency. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers.

The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in:

independent investigation of transport accidents and other safety occurrences;
safety data recording, analysis and research; and
fostering safety awareness, knowledge and action.

The ATSB is established by the Transport Safety Investigation Act 2003 (TSI Act) and conducts its investigations in accordance with the provisions of the Act. Under the TSI Act, it is not a function of the ATSB to apportion blame or provide a means for determining liability. The ATSB does not investigate for the purpose of taking administrative, regulatory or criminal action."[6]

In order to provide a framework for our response to the TORs, we need to briefly look at parts of the enabling legislation.

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5 Rural and Regional Affairs and Transport References Committee, *Current Inquiries*, at http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=rrat_ctte/pel_air_2012/tor.htm accessed 10 October 2012

6 ATSB, *Overview of the ATSB*, at http://www.atsb.gov.au/about_atsb/overview.aspx accessed 10 October 2012

The Transport Safety Investigation Act 2003

For the purposes of this limited discussion, the relevant functions of the ATSB are found in section 12AA:

> **"12AA Functions of the ATSB**
>
> (1) The ATSB's function is to improve transport safety by means that include the following:
>
> (a) receiving and assessing reports of transport safety matters, reportable matters, and other safety information that is prescribed by the regulations;
>
> (b) independently investigating transport safety matters;
>
> (c) identifying factors that:
>
> (i) contribute, or have contributed, to transport safety matters; or
>
> (ii) affect, or might affect, transport safety;
>
> (d) communicating those factors to relevant sectors of the transport industry and the public in any way, including in any one or more of the following ways:
>
> (i) by making safety action statements;
>
> (ii) by making safety recommendations;
>
> (iii) by issuing safety advisory notices;
>
> (e) reporting publicly on those investigations;
>
> (f) conducting public educational programs about matters relating to transport safety;
>
> (g) any other means prescribed by the regulations.
>
> (2) The ATSB also has the following functions:
>
> (a) cooperating with:
>
> (i) an agency of the Commonwealth, a State or Territory that has functions or powers relating to transport safety or functions affected by the ATSB's function of improving transport safety; and
>
> (ii) a person who has, under a law of the Commonwealth, a State or Territory, functions or powers relating to transport safety or functions affected by the ATSB's function of improving transport safety; and
>
> (iii) a national authority or other body of another country that has functions or powers relating to transport safety or functions affected by the ATSB's function of improving transport safety;
>
> (b) doing anything incidental to its function of improving transport safety.
>
> (3) The following are not functions of the ATSB:
>
> (a) to apportion blame for transport safety matters;
>
> (b) to provide the means to determine the liability of any person in respect of a transport safety matter;
>
> (c) to assist in court proceedings between parties (except as provided by this Act, whether expressly or impliedly);
>
> (d) to allow any adverse inference to be drawn from the fact that a person was involved in a transport safety matter.

However, even though blame or liability may be inferred, or an adverse inference may be made, by a person other than the ATSB, this does not prevent the ATSB from carrying out its functions.

(4) To avoid doubt, subsection (3) does not prevent the prosecution of any offence under this Act." [7]

In aviation safety terms, we are not alone. The International Civil Aviation Organisation (ICAO) has established Standards and Recommended Practices (SARPs) for accident investigation (known as Annex 13)[8] in accordance with Articles 26 and 37 of the Chicago Convention[9]. Article 38 requires us to register any differences from those SARPs with ICAO to aid international awareness of Australian policy and procedures. Our international obligations are enlivened by section 12AD of the TSI Act and regulation 5.3 of the *Transport Safety Investigation Regulations 2003* (TSIR 03).[10]

Human Factors

The "About the ATSB" pages of the ATSB website take us to "International Recognition", where the following statement may be found:

> "The Australian Transport Safety Bureau (ATSB) holds a worldwide reputation for excellence based on its operational independence, objectivity and technical competence in accident investigation. Its expertise and contribution to the field of human factor at both the individual and organizational level is acknowledged as world class. The bureau was one of the first world's civil aviation safety investigation organizations to develop a capability in human factors, and system safety. Subsequent advanced research work has led the Bureau to become a world leader in proactive accident prevention and safety enhancement as well as core accident investigation. The Bureau's ongoing commitment to the behavioural science of human and organizational factors in transport safety is at the heart of its credibility and underlies its reputation as a leading safety investigation agency in the world arena."[11]

Indeed, this theme was repeated quite recently during Senate Estimates in response to a question from Senator Xenophon:

> "**Senator XENOPHON**: You do not think it constrains you in terms of providing more depth in human factors analysis?
>
> **Mr Dolan**: That was the second part, as I was saying, of the question. There is the specific timeliness thing, an appropriate level of review to make sure that the rigour and the factual accuracy of our reports is in place, which I think is important, and it also goes to procedural fairness. Although we are a no-blame organisation, people can

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7 See http://www.comlaw.gov.au/Details/C2012C00366 accessed 10 October 2012

8 ICAO, Annex 13 *Aircraft Accident and Incident Investigation* to the Convention on International Civil Aviation

9 See Schedule 1—Convention on International Civil Aviation to the *Air Navigation Act 1920*

10 See http://www.comlaw.gov.au/Details/F2009C00480 accessed 10 October 2012

11 ATSB, *International Recognition*, at http://www.atsb.gov.au/about_atsb/international-recognition.aspx accessed 10 October 2012

read our reports as pointing the finger, even though we do not intend them to. So there are no surprises for those involved.

The second point is that I am startled that there is a belief out there that we do not have human factors at the core of what we do. Our entire investigation and analytical model is based on fundamental principles of human factors—understanding human error, understanding how to minimise it, accepting that you can never remove it, and looking therefore at how you capture errors and make sure they are dealt with in the system. I am not sure, in addition to that, how much I can say."[12]

It is important to clarify why there is such an emphasis (and great expectations) on the science of Human Factors. The Executive Summary of the excellent ATSB publication "*A Layman's Introduction to Human Factors in Aircraft Accident and Incident Investigation*" provides an appropriate insight:

"The term 'Human Factors' refers to the application of scientific knowledge, mostly from the human sciences of psychology, anthropology, physiology and medicine, to the design, construction, operation, management and maintenance of products and systems.

The purpose of the application of this scientific knowledge is to attempt to reduce the likelihood of human error and therefore the likelihood of negative outcomes while operating or using products or systems.

This paper is concerned primarily with the relationship of Human Factors to aircraft accident and incident investigations. The purpose of applying Human Factors knowledge to such investigations is to not only understand what happened in a given accident, but more importantly, why it happened. Without understanding why an accident occurred, safety investigation agencies such as the Australian Transport Safety Bureau (ATSB) are limited in their ability to draw meaningful conclusions and propose effective safety action and recommendations for change.

Most aircraft accidents and incidents are the result of errors (including slips and lapses) made by the people responsible for operating the aviation system. These people could be pilots, air traffic controllers, maintenance staff or executive managers of the various aviation organisations. Some of the errors committed by these people are the result of deliberate violations of rules and procedures. However, even the majority of errors resulting from violations do not come from any intent to harm anyone or commit a crime. Any aircraft crash that is the result of a wilful act intended to cause harm or damage is by definition not an accident and would not fall within the investigative mandate of the ATSB. As has been seen in the US in recent years, and would also be the case here in Australia, aircraft crashes that are the result of wilful violations with the intent of causing harm or damage are investigated by criminal and security investigation authorities.

Some people believe that if a human is given a reasonable task to complete and they are adequately trained, then the individual should be able to repeatedly perform the task without error. However, applied research and accident investigation reports from around the world demonstrate that this view is incorrect. Competent humans conducting even simple tasks continually make errors, but in most cases they recognise the errors they have made and correct them before any consequence of the

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[12] Rural and Regional Affairs and Transport Legislation Committee, Senate Committee Hansard, Budget Estimates 23 May 2012, page 86

errors is realised. In a small number of cases they fail to either recognise the errors or fail to correct them before the consequences of the errors are realised.

It is believed by many human science professionals that human error is a normal part of human performance and is related to the very qualities that make us human. That is, our brains allow us to quickly assess large amounts of information and make varying judgements and decisions about that information. However, our ability to vary our judgements and decisions are influenced by many factors and these factors often lead us to make errors.

Since it was known very early on in aviation history that the pilot 'failed' significantly more often than the plane did, most aircraft accidents were classified as 'pilot error' and often the explanation went little further than that. **The use of the term 'pilot error' provides a simple, but often misleading explanation of a complex accident sequence.**

Sections of the community and some high-risk industries seem to desire a simple explanation for complex events. That is, of what 'caused' the event and who is to 'blame'. Some also tend to see Human Factors as a process of helping individuals avoid their responsibility for accidents.

While the concept of pilot error tends to fit well with the desire to blame someone, it is at odds with international agreements and Australian domestic law.

...

Safety investigations need to keep focused on why an accident or incident occurred, rather than who is to blame.

With the evolution of human factors, human sciences knowledge is now not only applied against a systems engineering background, but also against a psychosocial and more recently a business management framework. **These evolutionary developments break away from the idea that a pilot operates in a vacuum and that accidents are events isolated from the system which nurtured them.**

Contemporary human factors application is now as much about understanding how groups of people, be they flight crew, cabin crew, maintenance staff, air traffic controllers or senior management teams operate, and why they make decisions and behave in particular ways, as it is about individuals. **It is also now about viewing accidents as part of the overall complex system which supported all the aspects of the operation. As such, it is about understanding how organisations manage risk and balance their safety obligations with their business imperatives...**" [emphasis added] [13]

As we saw in the previous section above, subsection 12AA(3) of the TSI Act reinforces the "no-blame" philosophy, while providing the important rider that the ATSB is not to be prevented from carrying out its functions by the possibility that an unrelated party may infer blame or liability or make an adverse inference. AIPA has been concerned for some time that an over-emphasis on the former has

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[13] David Adams, 2006, *A Layman's Introduction to Human Factors in Aircraft Accident and Incident Investigation*, ATSB Canberra, accessed 10 Oct 2012 at http://www.atsb.gov.au/publications/2006/b20060094.aspx

overshadowed, if not obscured, the latter. We have raised those concerns and made related recommendations to this Committee at a previous Inquiry.[14]

AIPA also believes that the above quotations reinforce the now almost universal view that accidents and incidents should be seen as organisational, but preferably systemic, rather than individual events. In this context, that system includes not only the groups listed above but also the regulators, the clients and even government departments. There should be no sign that any organisation is "touched lightly" by an investigation as a consequence of perceived power in interested party consultation, particularly at the apparent expense of an individual.

THE FIRST TERM OF REFERENCE

The first TOR reflects what AIPA believes to be the catalyst for this Inquiry, the publication on 30 August 2012 of the Report of Investigation Number AO-2009-072:

> (a) the findings of the Australian Transport Safety Bureau into the ditching of VH-NGA Westwind II, operated by Pel-Air Aviation Pty Ltd, in the ocean near Norfolk Island airport on 18 November 2009;

The published Findings were:

> "**FINDINGS**
>
> From the evidence available, the following findings are made with respect to the ditching 5 km south-west of Norfolk Island Airport on 18 November 2009 involving Israel Aircraft Industries Westwind 1124A aircraft, registered VH-NGA. They should not be read as apportioning blame or liability to any particular organisation or individual.
>
> **Contributing safety factors**
>
> - The pilot in command did not plan the flight in accordance with the existing regulatory and operator requirements, precluding a full understanding and management of the potential hazards affecting the flight.
> - The flight crew did not source the most recent Norfolk Island Airport forecast, or seek and apply other relevant weather and other information at the most relevant stage of the flight to fully inform their decision of whether to continue the flight to the island, or to divert to another destination.
> - The flight crew's delayed awareness of the deteriorating weather at Norfolk Island combined with incomplete flight planning to influence the decision to continue to the island, rather than divert to a suitable alternate.
>
> **Other safety factors**
>
> - The available guidance on fuel planning and on seeking and applying en route weather updates was too general and increased the risk of inconsistent in-flight fuel management and decisions to divert. *[Minor safety issue]*

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[14] AIPA, Submissions 6 *et seq*, *op.cit.*

- Given the forecast in-flight weather, aircraft performance and regulatory requirements, the flight crew departed Apia with less fuel than required for the flight in case of one engine inoperative or depressurised operations.
- The flight crew's advice to Norfolk Island Unicom of the intention to ditch did not include the intended location, resulting in the rescue services initially proceeding to an incorrect search datum and potentially delaying the recovery of any survivors.
- The operator's procedures and flight planning guidance managed risk consistent with regulatory provisions but did not effectively minimise the risks associated with aeromedical operations to remote islands. *[Minor safety issue]*

Other key findings

- At the time of flight planning, there were no weather or other requirements that required the nomination of an alternate aerodrome, or the carriage of additional fuel to reach an alternate.
- The aircraft carried sufficient fuel for the flight in the case of normal operations.
- A number of the flight crew and medical personnel reported that their underwater escape training facilitated their exit from the aircraft following the ditching.
- The use by the flight crew of the aircraft's radar altimeter to flare at an appropriate height probably contributed to a survivable first contact with the sea.
- The observation of the pilot in command's torch re-directed the search to the correct area and facilitated the timely arrival of the rescue craft."[15]

AIPA was not party to the investigation and is not in possession of any factual material related to the investigation. Our comments are therefore limited the more general context of whether the publication of the Report is timely and adds aviation safety value.

In 2011, we raised our concerns in our Supplementary Submission to this Committee during the Inquiry into *Pilot Training and Airline Safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010* in this way:

> "Are ATSB Reports serving their intended safety purpose or are they too late and too superficial to be anything other than records of bureaucratic activity?
>
> AIPA is of the view that recent major reports are not serving their safety improvement purpose due to a lack of depth, particularly in regard to HF, and a lack of timeliness. We believe that, without the technical and HF insight that is required for complete understanding of complex failures, it is difficult to defend against an inaccurately or inadequately described problem.
>
> Similarly, if nobody really remembers the problem or they think it has already been solved before a report is issued several years after the event, then the

15 ATSB, Transport Safety Report, *op. cit.*, pages 43-44

> report has lost its value (other than a record of activity). The roadblocks to timely publication must be eliminated.
>
> AIPA believes that there needs to be a formal system for multilateral industry assistance to the ATSB to supplement its resources, particularly in regard to specialist operational and technical knowledge."[16]

It is through that prism that AIPA provides its comments.

Timeliness of Publication

ATSB, like CASA, focuses its priorities on 'fare-paying passenger operations'.[17] Under the current classification of operations set out in Civil Aviation Regulation (CAR) 206[18], this is generally accepted as excluding 'aerial work' activities, which includes "ambulance functions". Given that the ditching was non-fatal, it seems likely that the investigation and finalisation of the report was not accorded a high priority.

AIPA well understands and accepts the need to prioritise the use of the ATSB's resources. We also understand that in some cases the Report will fall into the category of an historical record, because "nobody really remembers the problem or they think it has already been solved". *Prima facie*, the successful ditching of an air ambulance flight might well fit that bill, given that the subsequent investigation generated only two 'minor safety issues', the lowest level of identified risk.

However, after the effluxion of some 33 months between accident and publication of the report, a few questions emerge:

- were the real issues identified,
- were the correct solutions developed,
- have those solutions been put in place, and
- has the rest of the aviation community learned from the events?

AIPA believes that each of these questions bears further examination, particularly as the Report appears to us to lack appropriate balance between the system and the individual flight crew members.

The Regulatory Context – Air Operators Certificate

The Report identifies that the flight was categorised as 'aerial work' and makes the distinction that:

> "Aerial work operations are a separate flight category from passenger-carrying charter and scheduled air transport operations."

However, no mention is made of the fact that section 27 of the *Civil Aviation Act 1988* (CAA 88) mandates that each of those three classes of operations requires an Air Operators Certificate (AOC) and must meet a range of requirements. Of

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16 AIPA, Submission 6ss, *op. cit.*, page 7

17 ATSB, *Overview of the ATSB*, *op. cit.*

18 See http://www.comlaw.gov.au/Details/F2012C00622 accessed 10 October 2012

particular significance from an organisational perspective are sections 28BE and 28BF, which apply regardless of the class of operations and state in pertinent part:

> **"28BE Duty to exercise care and diligence**
>
> (1) The holder of an AOC must at all times take all reasonable steps to ensure that every activity covered by the AOC, and everything done in connection with such an activity, is done with a reasonable degree of care and diligence.
>
> (2) If the holder is a body having legal personality, each of its directors must also take the steps specified in subsection (1).
>
> (3) It is evidence of a failure by a body and its directors to comply with this section if an act covered by this section is done without a reasonable degree of care and diligence mainly because of:
>
> (a) inadequate corporate management, control or supervision of the conduct of any of the body's directors, servants or agents; or
>
> (b) failure to provide adequate systems for communicating relevant information to relevant people in the body..."

and

> **"28BF Organisation, personnel etc.**
>
> (1) The holder of an AOC must at all times maintain an appropriate organisation, with a sufficient number of appropriately qualified personnel and a sound and effective management structure, having regard to the nature of the operations covered by the AOC..."

AIPA's interpretation of these provisions is that, in simple terms, the organisation must match the complexity of the intended operations and that, for a company such as Pel-Air, the directors have a continuous duty to ensure that such an organisational parity is achieved.

In this particular instance, it seems reasonable that Pel-Air should have been an abundantly capable organisation given that it was a wholly-owned subsidiary of a prominent airline and that the Chairman was a prominent aviation consultant with deep insight into previous organisational failures such as Monarch Airlines and Seaview Air[19]. Importantly, Pel-Air offered on its website the capability to provided charter or medevac flights "anywhere at any time". In AIPA's view, an operation of that reach and capability would inevitably require robust training, supervision, operational support and fatigue management and very careful risk management – an area apparently unexplored by the investigation.

The Regulatory Context - Aerial Work vs Charter

The Report does not mention that Civil Aviation Order (CAO) 82.1 "*Conditions on Air Operators' Certificates authorising charter operations and aerial work operations*" makes no distinction of relevance to the accident between the requirements for charter and those for aerial work.

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19 See http://www.rex.com.au/AboutRex/OurCompany/directors.aspx

It is quite normal for AOC holders offering both aerial work and charter operations in transport category aircraft such as the Westwind and other relatively sophisticated aircraft in the Pel-Air fleet to choose to operate to the charter standard, regardless of the actual class of operations for a particular task.. This has the advantage of managing compliance risk in switching between operating classifications. In the past, where there are inconsistent requirements between classes of operations, such as between low and high capacity regular public transport (RPT), CASA haindicated an expectation that the AOC holder will adopt the higher standard for all operations. Furthermore, it is also quite normal for many clients in the resource industries to require charter operators to operate to regular public transport standards, as these standards are seen as representing the greatest risk mitigation.

AIPA offers the view that the classification of operations under CAR 206 was born in an era when aerial work was the domain of unsophisticated, cheap and readily replaceable light aircraft being employed on risky tasks with minimal third-party exposure and few alternatives to getting the job done. 'Aerial work' provided a regulatory flexibility that reflected the practicalities of activities that in many other jurisdictions are unregulated. However, many aerial work activities have evolved into far more sophisticated operations than were even contemplated when that classification was defined.

As part of that evolution, our expectation is that the use of much higher value assets would bring with it a concomitantly higher level of risk management. Consequently, we would be surprised to see any pressure to seek commercial advantage by making use of reduced requirements, particularly fuel and aircraft equipment, which are available in the aerial work category but not in charter. Unfortunately, the investigation apparently did not examine either the appropriateness (as distinct from legal availability) of the aerial work classification for sophisticated air ambulance operations or the operational decision to use the lower standard.

The Regulatory Context – Training & Checking Requirements

The Report makes no mention of the fact that operation of the Westwind aircraft, an aircraft of maximum take-off mass of 10660 kg, enlivened the requirement to provide a formal Training & Checking regime pursuant to CAR 217:

> **"217 Training and checking organisation**
>
> (1) An operator of a regular public transport service, an operator of any aircraft the maximum take-off weight of which exceeds 5,700 kilograms and any other operator that CASA specifies shall provide a training and checking organisation so as to ensure that members of the operator's operating crews maintain their competency.
>
> Penalty: 50 penalty units.
>
> (2) The operator must ensure that the training and checking organisation includes provision for the making in each calendar year, but not at intervals of less than four months, of two checks of a nature sufficient to test the competency of each member of the operator's operating crews..."

That requirement is in turn reflected in CAO 82.1 with greater detail:

"3 Obligations in relation to training and checking

3.1 Each operator who is required to provide a training and checking organisation under regulation 217 of the Civil Aviation Regulations 1988:

(a) must do so in accordance with Appendix 2; or

(b) may use the training and checking organisation provided by another operator if:

(i) that use is in accordance with a written agreement with that other operator; and

(ii) that agreement has had the prior written approval of CASA.

3.2 An agreement under subparagraph 3.1 (b) must not be varied without the approval of CASA.

3.3 Persons must not be nominated to supervisory positions within the training and checking organisation without the approval of CASA..."

The Report mentions in passing under Personnel Information that the operator's Operations Manual contained a Part D titled *Check and Training* and that it included a section on post-endorsement training. The Report also noted that the Operations Manual has no requirement to record that training or, it would appear, the proficiency checks required under CAR 217.

AIPA notes that the Report makes no mention of the fact that the identified lack of records seems at odds with the requirements of CAO 82.1 Appendix 1 and 2. *Prima facie*, it seems to be a curious omission not to make it clear in the Report if the operator was not meeting its training and checking responsibilities and CASA had not previously detected it. In this situation, it is difficult to ascertain whether the crews were indeed proficient or whether the operator was providing effective training, including fuel planning, for the range of operations that it offered to the public.

The Regulatory Context – Fuel Planning Requirements

AIPA is of the view that CAR 234 establishes the overarching requirement for fuel planning and appropriately balances the shared responsibility of the pilot and the operator:

"234 Fuel requirements

(1) The pilot in command of an aircraft must not commence a flight within Australian territory, or to or from Australian territory, if he or she has not taken reasonable steps to ensure that the aircraft carries sufficient fuel and oil to enable the proposed flight to be undertaken in safety.

Penalty: 50 penalty units.

(2) An operator of an aircraft must take reasonable steps to ensure that an aircraft does not commence a flight as part of the operator's operations if the aircraft is not carrying sufficient fuel and oil to enable the proposed flight to be undertaken in safety.

Penalty: 50 penalty units.

(3) For the purposes of these regulations, in determining whether fuel and oil carried on an aircraft in respect of a particular flight was sufficient within the meaning of subregulations (1) and (2), a court must, in addition to any other matters, take into account the following matters:

(a) the distance to be travelled by the aircraft on the flight to reach the proposed destination;

(b) the meteorological conditions in which the aircraft is, or may be required, to fly;

(c) the possibility of:

(i) a forced diversion to an alternative aerodrome; and

(ii) a delay pending landing clearance; and

(iii) air traffic control re-routing the flight after commencement of the flight; and

(iv) a loss of pressurisation in the aircraft; and

(v) where the aircraft is a multi-engined aircraft — an engine failure;

(d) any guidelines issued from time to time by CASA for the purposes of this regulation.

(4) An offence against subregulation (1) or (2) is an offence of strict liability."

While AIPA appreciates that the ATSB does not investigate for the purposes of regulatory compliance, it is our view that the mere juxtaposition of CAR 234, CAO 82.0 and Civil Aviation Advisory Publication (CAAP) 234-1(1) *Guidelines for Aircraft Fuel Requirements* would generate greater debate.

For example, the ATSB may well have discussed whether, and to what extent, the information contained therein is inconsistent and, further, why CAAP 234-1 did not include the special case of remote island fuel planning, given that the CAO 82.0 requirements preceded the CAAP by several years. Similarly, the Aeronautical Information Publication (AIP) provides no clue that special requirements exist.

To the extent that the Report notes that as "an aerial work flight, the aeromedical flight to Norfolk Island was not subject to these CAO 82.0 requirements, but they nevertheless provide useful context", AIPA is disappointed that the ATSB did not question the possibility that neither the lack of applicability of CAO 82.0 nor the vagaries of CAAP 234-1(1) served to reasonably release the operator from the higher duty of CAR 234, particularly given that anything that made the Norfolk Island runway unusable meant that the closest usable runway was 429 nm away in Noumea. It seems to us that this was a lost opportunity to question the appropriateness of many aspects of the regulatory framework, regardless of what is or may be promised as part of the long-awaited regulatory review.

AIPA also notes that the Report offers little evidence as to the extent of the operator's support of its flight crews in regard to the provision of a Route Manual or some other guide to the peculiarities of certain destinations. Each of the three islands declared 'remote' in CAO 82.0 are renowned for unpredictable and often severe weather phenomena – each creates significant orographic uplift and their isolation from meteorological data collection points and ocean buoys means that

there is often little warning of sudden deterioration in the weather which then often takes days rather than hours to dissipate. The Norfolk Island weather was the subject of a specific ATSB safety recommendation in 2000[20] and we are confident that it still represents a major challenge to the Bureau of Meteorology today. Importantly, while it may not be unusual for young and inexperienced pilots to be unaware of these peculiarities, the operator is generally best placed to do the research as part of their operational risk management.

AIPA is a little concerned about the discussion on Critical Points (CPs) and Points of No Return (PNRs) in relation to the Air Transport Pilot Licence (ATPL) theory training. In our view, the techniques learnt to pass the theory exam are extremely perishable unless reinforced in operational use and practiced regularly. In our view, for long range limited-option flights such as the accident flight, the operator has a responsibility, through the Training & Checking regime, to convert any residual theory knowledge into demonstrated operational competence. Notwithstanding, we believe that the flight crew have a shared responsibility to properly prepare themselves to meet the likely operational requirements.

RVSM Capability

The issue of a lack or Reduced Vertical Separation Minima (RVSM) capability for that particular aircraft has been raised, in one case in a highly emotional way. AIPA takes the view that a lack of RVSM capability, whether as a result of design limitations, equipment unserviceability or investment choice, is just another operational limitation for which the crew must adequately plan. Both operator and crew must accept that appropriate changes to the route or fuel/payload ratio may be required or, in some cases, the task may have to be rejected. It would generally be seen as unwise to rely on being able to climb above RVSM airspace to make the fuel plan viable.

Human Factors Analysis

From our perspective, the Report lacks any significant analysis of why the pilot in command attempted the task in the manner that he did. The presentation of 'facts' alone is unhelpful, since the investigators must have some insight into what, at least in the raw form, appear to be an apparently uninformed approach to conducting a potentially risky flight.

It is difficult not to read between the lines that the operation was conducted on a "Lone Ranger" basis, unsupported by the operator and reliant upon such experience and knowledge as the pilot in command may have accumulated through his own efforts. Of course, if the operational climate was as disengaged as it might seem, then it raises the reasonable questions as to how it came to be that way, for how long had it existed, should CASA have reasonably been aware of it and was it

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20 ATSB, Reliability Of Norfolk Island Forecasts, R20000040, issued 22 February 2000, at http://www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx, accessed 10 October 2012

reasonably foreseeable that it may exceed the acceptable risk profile for that type of operation?

Risk Management versus Minimum Regulatory Compliance

Perhaps the most obvious missing debate is one that AIPA would previously have considered to have been well settled – that meeting the minimum regulatory requirements may have little real impact on the management of the operational risks to achieve a safe flight.

Although the findings in this Report identify a Minor Safety Issue with the operator's management of risk versus compliance, AIPA believes that the operator has indeed been 'touched lightly' in the analysis, with a seeming emphasis on regulatory compliance. To go back to the David Adams research paper[21] on human factors:

> "...These evolutionary developments break away from the idea that a pilot operates in a vacuum and that accidents are events isolated from the system which nurtured them."
>
> "...It is also now about viewing accidents as part of the overall complex system which supported all the aspects of the operation. As such, it is about understanding how organisations manage risk and balance their safety obligations with their business imperatives..."

In that regard, AIPA is of the view that the Report fails to meet these ideals and misses a significant opportunity to add value to our understanding the interaction of the individual with the organisation and the resulting outcomes.

The Pel-Air Safety Management System

Although not required by legislation, it is apparent that Pel-Air had instituted a Safety Management System (SMS)[22]. By any measure, it would appear to have been ineffective in achieving its primary purpose of managing operational risk. It seems useful to us to explore whether this event occurred as a consequence of an individual acting outside the organisational policies, procedures and culture or whether the risk management mechanisms were appropriate. Given the general thrust in Australian aviation towards SMS as a key safety process, AIPA cannot understand why the Report is silent in this regard.

Real Time Advice of Environmental Changes

The Report says that "Nadi ATC did not, and was not required by any international agreement to, proactively provide the 0803 amended Norfolk Island TAF to the flight crew"[23]. The veracity of the statement has been queried on an anonymous aviation forum (upon which we normally would not place any significant credence,

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21 David Adams, *op. cit.*

22 ABC Four Corners, *Crash Landing*, background information, at http://www.abc.net.au/4corners/documents/norfolkisland2012/CASA_Special_Audit_2009.pdf accessed 10 October 2012

23 ATSB, Transport Safety Report, *op. cit.*, page 7

except that the operational ramifications potentially affect all forms of air transport operations). Part of the query states:

> "...It is a requirement to let the Captain know about an amended TAF and there are international standards covering how delivery responsibility is allocated to the ATS units, however the question in this incident is whose responsibility was it to direct the information to the incident aircraft; Airservices Australia or Airways NZ?
>
> One thing for sure it is not a Nadi ATC responsibility as Norfolk Island is located in the Auckland Oceanic FIR so, under normal circumstances, the responsibility should rest with Airways NZ. However, the NZ AIP (Gen 3.3) specifically excludes Norfolk Island as an Airways ATS responsibility because Norfolk Island is administered by Australia and, therefore, by implication the NZ AIP assumes it is an Airservices Australia responsibility to pass amended TAFs to aircraft operating or intending to operate at Norfolk Island..."[24]

AIPA is not in a position to verify these coordination agreements or lack thereof. However, the operational consequences of this situation seem obvious and we are at something of a loss to understand why such a fundamental operational coordination issue would not have been pursued as a safety matter. Indeed, as a further consideration, what are the implications for the effectiveness of Airservices Australia's SMS? This is particularly the case in the unusual situation of Norfolk Island, which is an Australian aerodrome in an External Territory located in a foreign Flight Information Region but operating under Australian regulations and standards once an aircraft is within 12 nautical miles. If nothing else, the issue should be clarified

The Safety Actions

It appears to us that none of the Safety Actions attributed to CASA have been completed. While that may be a function of the regulatory review program, it is not apparent what other mitigators have been put in place. As things stand, it is not clear from an industry compliance perspective if any safety improvement has been achieved.

It is also not clear from the Safety Actions attributed to the operator that there has been an acceptance of the need for greater real-time operational control and support of higher risk missions. Many of the actions taken are focused on how the crews will conduct themselves and may merely be indicative of an enhancement of the "we rely on the crew to make it work" approach.

ABC 'Four Corners' and the Special Audits

AIPA is troubled by several aspects of the extended interviews with the Director of Aviation Safety[25] and the Chief Commissioner of the ATSB[26].

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[24] See http://www.pprune.org/dg-p-general-aviation-questions/468378-norfolk-island-ditching-atsb-report-17.html#post7407207

[25] ABC Four Corners, *Crash Landing*, Interview with John McCormick, Director Aviation Safety CASA, at

The first area of concern is the repeated statements that nothing in the Special Audit was relevant to the accident. While AIPA does not have access to information other than that placed in the public arena by the ABC program 'Four Corners'[27] and, more recently, by Crikey in the blog 'Plane Talking'[28], that information alone raises serious doubt about the organisational context of the accident.

The timing of the Special Audit conducted by CASA appears to indicate that the identified deficiencies, including an organisational climate that supervenes the compliance issues, existed at the time of the accident and, most likely, for some significant time previously. Consequently, it seems a little disingenuous to suggest that these organisational attributes were inconsequential. This apparent sidelining of the organisational aspects of this accident appears to be at odds with modern human factors theory. It also makes the focus on the failings of the 'last man standing' appear to be inappropriate and unbalanced.

AIPA recognises that there were legitimate concerns about the competence of the pilot to conduct the flight which ended so precipitately. But we also recognise that the areas in which he may have been deficient do not appear to be greatly out of step with the organisational climate or the operational culture. For us, that raises the question as to what opportunities for remediation, redirection or improvement for a pilot (or any employee) might have existed within that organisation? Critically, we don't know why the crew thought at the time that what they were doing and how they were doing it was normal and acceptable.

Importantly, the organisational climate and the operational culture of Pel-Air existed under the direct supervision of CASA and the assigned inspectors. Where will the sub-plot play out of the apparent failure of CASA to be aware of the situation within the complex Pel-Air organisation?

In the absence of countervailing evidence in the Report, the implication is that the system was fine, but the last line of defence inexplicably failed to achieve a safe outcome. The emerging evidence of the Special Audit is that the Director of Aviation Safety knew at the time of the ABC 'Four Corners' interview that the system, which in this case was dominated by the actions and inactions of CASA and Pel-Air, was a very long way from 'fine'. The continuation of the "it's only about the pilot" argument seems a little incongruous in the circumstances.

In the absence of a more complete picture of the protective and remedial action taken by CASA, it will be an easy mantra for the vocal minorities to adopt, and very

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http://mpegmedia.abc.net.au/news/fourcorners/video/20120903_McCormick_288p.mp4 accessed 10 October 12

26 ABC Four Corners, *Crash Landing*, Interview with Martin Dolan, Chief Commissioner ATSB at http://mpegmedia.abc.net.au/news/fourcorners/video/20120903_Dolan_288p.mp4 accessed 10 October 12

27 ABC Four Corners, *Crash Landing*, background information, *op. cit.*

28 Crikey, *Plane Talking* with Ben Sandilands, at http://blogs.crikey.com.au/planetalking/2012/10/11/atsb-pel-air-report-damned-by-foi-release-of-full-casa-audit/ accessed 11 October 12

difficult for the committed staff of CASA to repudiate, that CASA "played the man and not the ball" in this context.

Our second area of concern is the extent to which the *Privacy Act 1988* really applies to the actions and activities of CASA. In short, is CASA actually inhibited to the extent the Director suggested or is the privacy law a convenient excuse to avoid potentially awkward or unpleasant disclosures?

AIPA believes that it would be most helpful to debate, if not clarify, what information should be released to the public without resort to Freedom of Information requests, in what form the information may take, how the consequences to individuals and organisations might be balanced against the public interest and what distinction might be made between remedial and punitive action taken or initiated by CASA.

Our third area of concern relates to the conundrum of how the ATSB chooses what to place in the public domain via its investigation reports. The extended ABC 'Four Corners' interview with the Chief Commissioner of the ATSB reveals a little of the difficulty that the ATSB faces in finalising a Report. Clearly this investigation involved a high level of contested 'facts' and a great deal of 'interested party consultation' and AIPA recognises the criticality of confirming the factual basis of the investigation.

AIPA also supports the concept of 'no-blame' reporting for safety investigations. This is codified in subsection 12AA(3) of the TSI Act. That codification is not without its own difficulties, for example paragraph 12AA(3)(d) and how it may operate in practice rather than what was intended:

> "(d) to allow any adverse inference to be drawn from the fact that a person was involved in a transport safety matter."

AIPA believes that it is laudable if the ATSB was capable of preventing any consequences that might flow from the mere involvement of a person in a transport safety matter. We look forward to an explanation of what the original drafters had in mind when formulating the paragraph and how the ATSB was expected to comply.

However, what worries us most is the potential for ATSB management to presume pressure for the ATSB to report as close to the unembellished and unexplained facts as possible, or even to omit information to avoid any opportunity to infer blame or liability or make an adverse inference. Such minimisation may be seen to best satisfy paragraph 12AA(3)(d) in a legal sense, but in the real world may very well fuel the opposite result.

Those difficulties appear to have been recognised at the drafting stage by the inclusion of the very important rider that the ATSB is not to be prevented from carrying out its functions by the possibility that an unrelated party may infer blame or liability or make an adverse inference. As noted in our introductory remarks, AIPA has been concerned for some time that an over-emphasis on the preceding "no-blame" provisions has overshadowed, if not obscured, the importance of what might be described as that "don't be too timid" rider.

In summary, it seems clear from both extended interviews that the Chief Commissioner and the Director of Aviation Safety share the same view that the

corporate arrangements within which the flight crew resided had no influence on the accident, despite CASA's own Special Audit revealing a concerning insight into the environment that existed at the time of the accident. In sharp contrast, AIPA agrees with the views expressed in the ATSB document *Organising for Flight Safety*, which states:

> Organisational factors significantly influence flight safety outcomes since managers bear responsibility for the development of policy and oversight of its implementation. Hopkins (2005, p.135), in concluding an analysis of acceptable risk contends that, 'the quality of management will have a major effect on risk'. In particular, top management and the management of flight operations, set policies on the overall acceptable level of risk for the organisation. Consequent polices and decisions include the selection of suitable aircraft types and installed protective and safety devices, routes to be operated, aerodromes to be used (or avoided), and flight operating procedures. Most importantly, management can influence the level of risk presented by human factors, acknowledged as the most significant contributor to accident causation (Maurino et al. 1995). Management sets and applies policies in relation to standards for recruitment of flight crew, subsequent training, assessment of ongoing competency, and dismissal of individuals who do not achieve or maintain the set standards. Management also decides on rostering systems that affect levels of crew fatigue, in turn impacting on the level of human error (Helmreich & Merritt 2000).
>
> Consequently, management has a large influence on organisational culture, which in turn plays a significant role in the safety outcomes of an airline. Perhaps most importantly, senior management makes critical policy decisions on the balance between 'protection and production' (Reason 1997), laying the foundation for resultant safety culture. Such policy guides organisational behaviour when members are making day-to-day decisions on the priority given to safety when this conflicts with 'getting the job done'. [29]

AIPA certainly has reservations about what we see as an overly narrow focus and a lack of balance in this Report. We are uncomfortable about what this may mean for future reporting if we are unfortunate enough to have a major airline incident. The threshold question must be:

> Has the system improved as the result of this investigation?

From our perspective, the answer in this case appears to be no, or at best, not much. The corollary is:

> Was this an opportunity missed to examine more broadly the system that placed the flight crew on that aircraft in the belief that they were adequately qualified and competent to achieve the task in whatever circumstances may arise?

The answer to that, we will leave to the Committee.

THE SECOND TERM OF REFERENCE

The second TOR covers some very wide and disparate ground:

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29 Dannatt R., Marshall V. and Wood M., 2006, *Organising for Flight Safety*, ATSB Research and Analysis Report, Canberra ACT, page 3

(b) the nature of, and protocols involved in, communications between agencies and directly interested parties in an aviation accident investigation and the reporting process;

In some ways, we have already touched upon our general concerns above. However, it may well be that the genesis of those concerns is directly related to this specific TOR.

AIPA suggests that the more obvious arrangements such as MOUs may have less effect than many think, particularly in respect of inter-agency co-operation.

AIPA notes that sections 10 and 11 of the TSI Act establish the priority of the TSI Act in relation to other State and Commonwealth laws and that section 12AA includes at subsection (2) a requirement to cooperate with certain agencies and persons:

(2) The ATSB also has the following functions:

(a) cooperating with:

(i) an agency of the Commonwealth, a State or Territory that has functions or powers relating to transport safety or functions affected by the ATSB's function of improving transport safety; and

(ii) a person who has, under a law of the Commonwealth, a State or Territory, functions or powers relating to transport safety or functions affected by the ATSB's function of improving transport safety; and

(iii) a national authority or other body of another country that has functions or powers relating to transport safety or functions affected by the ATSB's function of improving transport safety;

How is the co-operative balance struck?

Has the ATSB been Pushed Aside?

To a certain degree, AIPA is alert to the possibility that this TOR enlivens a review of the implementation of the 2007 Miller Report on Aviation Safety Agency Relations. This becomes more apparent when examining the TORs for Miller's review:

"The Terms of Reference as announced by the Minister on 5 October 2007

The review will consider the respective statutory roles and responsibilities of CASA and the ATSB and the relationship that has developed between the agencies and provide advice on matters including:

(a) Whether the objects and provisions of the legislation (the Civil Aviation Act 1988 and the Transport Safety Investigation Act 2003 and relevant regulations and instruments made under these Acts) governing the operations of both ATSB and CASA give clear primacy to the objective of promoting the safety of passenger transport operations;

(b) the adequacy of the current legislative provisions in ensuring that information which may contribute to improved aviation safety can be effectively and promptly obtained by agencies and communicated between the agencies;

(c) the extent to which the interaction, or any overlap, of the respective Acts creates barriers to effective safety action, communication and interaction between CASA and ATSB;

(d) the adequacy of current arrangements for the development and review of draft ATSB investigation reports, safety action reports and recommendations;

(e) the adequacy and effectiveness of current arrangements for responses to draft ATSB investigation reports, safety action reports and safety recommendations;

(f) the role and value of the Memorandum of Understanding (MOU) in place between CASA and the ATSB, and areas where the MOU can be strengthened or improved to achieve better working relationships between the agencies; and

(g) potential areas for improved co-operation and better co-ordination of safety investigation and information sharing.

The Review will provide recommendations regarding ways of ensuring the most effective possible working relationships between the agencies given their statutory responsibilities.

A written report is to be provided to the Minister by 21 December 2007."[30]

The Miller Review came about as a result of a letter to the Minister for Transport from the Queensland State Coroner who conducted the Inquest into the Aircraft Crash at Lockhart River[31]. The Findings of the Inquest reveal the basis of the Coroner's concerns, set out in a section titled "Australian Transport Safety Bureau Investigation" and concluding with:

"...In any event, the extent to which reliance can be placed on the report is, in these proceedings, a matter for me to determine. While I might not necessarily agree with each and every conclusion drawn by the ATSB, I see no reason to conclude that there has been any deliberate skewing of the evidence: of necessity, not all information gathered in such an investigation can be included in the final report and reasonable minds may differ on what should be excluded without either being biased. Nor do I consider that the investigation model or framework led to any unconscious bias.

In prosecuting these allegations over ten pages of its submissions, CASA reminds one of the oft quoted observations made by Hamlet's mother, Queen Gertrude, when viewing the travelling players. CASA's submission seeks to down-play the allegation of bias by concluding with what seems to me a disingenuous assurance that they are not alleging that it was intentional but rather the result of structural problems with the ATSB's new investigation system. That disclaimer is not consistent with the earlier attacks on the impartiality of the report which I have only briefly summarised here.

CASA had senior, expert legal representation who I'm sure would not have made such a sustained attack on the integrity of the ATSB investigation report without explicit instructions. In my view, these protestations are symptomatic of serious, ongoing animosity between the two organisations that needs redressing. I shall return to the issue in the recommendation section of these findings."[32]

Our purpose in revisiting these matters is to illustrate the relationship that existed at that time. AIPA shares the view that the image of an enraged CASA publicly

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30 Miller, Russell, *ATSB/CASA Review 2007 - Report to the Minister for Infrastructure, Transport, Regional Development and Local Government*, 21 December 2007, page 82

31 Queensland Courts, Office of the State Coroner, *Inquest into the Aircraft Crash at Lockhart River*, delivered 17 August 2007, page 54

32 Queensland Courts, *op. cit.*, pages 8-9

attacking the independent safety investigator was unacceptable on a number of levels. That the then Minister promptly responded by instituting the Miller review was critical to underpin the Australian public's faith in its aviation safety agencies, even though AIPA sees it as a lost opportunity to examine the interagency 'cat fight' on its merits. As Miller notes:

> "...The Minister commissioned a review, not an inquiry..."[33]

and goes on to say in footnote:

> "[4] In its submission to the Review the ATSB urged the Review to address "the facts and the background to the Queensland State Coroner's recommendation and the serious safety issues it may indicate." The ATSB "strongly disagreed" with the Review deciding not to undertake a detailed re-examination of the facts that led to the State Coroner's recommendation to the then Minister following the Lockhart River Inquest. The Review regards the Terms of Reference as requiring it to understand the underlying causes of the tension to which the State Coroner referred, but only for the purpose of making recommendations on the statutory roles and responsibilities of the ATSB and CASA and the relationship that has developed between them. This, the Review has done. The Review is satisfied that the approach taken has permitted a full and frank understanding of the likely underlying causes of the friction that caused the State Coroner to write to the then Minister."[34]

AIPA suggests that this rather set the stage for what appears to have followed. At first glance, Miller seems to diminish with faint praise the standing of the ATSB in the aviation safety arena in favour of CASA as the regulator:

> "...To be effective the safety system requires each government agency – the ATSB and CASA included – to work together in pursuit of a common safety goal. It relies upon a safety culture shared by the aviation industry and government, a willingness to embrace, impartially assess and implement measures to protect and improve the system, and appropriate respect for and co-operation with others that are part of the system.
>
> 4.3 As Australia's aviation safety system has improved over the years and our level of aviation sophistication increased, there may be a tendency to take the view that there is less to be learned from most of our aircraft accidents and incidents than was previously the case. The Review acknowledges that **the first line of defence in terms of managing day-to-day aviation safety risks rests with the operators and the regulator**. However, the accident investigator is an integral part of the aviation safety system because thorough, timely and authoritative investigation reports and safety recommendations inform the system about where it needs to focus its safety efforts.
>
> 4.4 Investigating each and every accident and incident may not necessarily improve the aviation safety system, but that does not mean the ATSB's role is diminished. The selectiveness with which the ATSB chooses accidents and incidents to investigate, the quality of its analysis and conclusions and the quality and practicality of the reports and safety recommendations it produces, have a direct influence on the value of its contribution to the Australia aviation safety system.

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33 Miller, *op. cit.*, page 4

34 *Ibid.*, footnote 4, page 4

4.5 **The ATSB can only make the contribution to improvements in aviation safety expected of it to the extent that its safety recommendations are accepted and actioned by relevant stakeholders** including the aviation industry and, importantly, CASA. Ultimately, the ATSB's contribution will be judged, not by the quality of its analysis, conclusions and safety recommendations per se, but by the influence those recommendations have on improving the aviation safety system." [emphasis added][35]

This latter view is pursued later in the Report:

> "19.3If the ATSB prepares reports or makes safety recommendations that CASA and other stakeholders do not take up the ATSB will make little, if any, contribution to aviation safety. Its defining goal must therefore be to work with other members of Australia's aviation safety system – including CASA – to ensure that its reports are relevant and safety recommendations acted upon."[36]

AIPA is aware that some, but not all, of the Miller recommendations have been explicitly enacted in legislative changes. However, we are also aware that much occurs away from the public eye. It seems to us that the ATSB has changed significantly since Lockhart River and appears to have drifted into a form of "institutional timidity", to borrow from Justice Staunton's description of CASA in the Seaview Royal Commission. It also seems that that "institutional timidity" owes much to Miller, since his message seems very open to an interpretation of "don't mention it if you have little prospect of getting it changed"!

This particular ATSB Transport Safety Report has attracted significant adverse comment is some aviation bulletin boards and social media. One particular commentator[37] produced the following statistics (of which we have verified only a brief sample) comparing the US National Transportation Safety Board (NTSB) with the ATSB in support of the general AIPA thesis outlined above:

> **Safety Recommendation Comparison**
>
> **NTSB**: (methodology)
>
> Safety Recommendations - Search & View
>
> The NTSB issues safety recommendations as a result of its investigation of transportation accidents and other safety concerns. Recommendations usually identify a specific problem uncovered during an investigation or study and specify how to correct the situation. Letters containing the recommendations are directed to the organization best able to act on the problem, whether it be public or private.
>
> **ATSB**: (methodology)
>
> Safety issues are broadly classified in terms of their level of risk as follows:
>
> Critical safety issue: associated with an intolerable level of risk and generally leading to the immediate issue of a safety recommendation unless corrective safety action has already been taken.

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35 *Ibid.*, pages 5-6

36 *Ibid.*, page 24

37 See http://www.pprune.org/dg-p-reporting-points/468048-senate-inquiry-hearing-program-4th-nov-2011-a-22.html#post7449967

Significant safety issue: associated with a risk level regarded as acceptable only if it is kept as low as reasonably practicable. The ATSB may issue a safety recommendation or a safety advisory notice if it assesses that further safety action may be practicable.

Minor safety issue: associated with a broadly acceptable level of risk, although the ATSB may sometimes issue a safety advisory notice.

Safety action: the steps taken or proposed to be taken by a person, organisation or agency in response to a safety issue.

Year: 2000

NTSB Aviation related SR:	144	ATSB Aviation related SR:	45
NTSB SR addressed to FAA:	119	ATSB SR addressed to CASA:	12
Percentage of total:	82.6%	Percentage of total:	26.6%

Year: 2005

NTSB Aviation related SR:	35	ATSB Aviation related SR:	19
NTSB SR addressed to FAA:	35	ATSB SR addressed to CASA:	6
Percentage of total:	100%	Percentage of total:	31.5%

Year: 2010

NTSB Aviation related SR:	168	ATSB Aviation related SR:	11
NTSB SR addressed to FAA:	143	ATSB SR addressed to CASA:	0
Percentage of total:	85.1%	Percentage of total:	0.0%

A brief perusal of the UK Air Accidents Investigation Board Annual Safety Report 2011 shows similar characteristics to the distribution of Safety Recommendations from the NTSB, in that the vast majority of addressees are regulatory agencies or aircraft manufacturers:

Recommendations made in 2010 by Addressee:

Addressee	Number
Airbus	5
Avcraft Aerospace GmbH	1
Belgium Civil Aviation Authority	1
Boeing	4
Bombardier Aerospace	2
British Airways PLC	2
Cessna Aircraft Company	3

Civil Aviation Authority	19
Diamond Aircraft Industries	3
Directorate General of Civil Aviation Turkey	1
EASA	28
Eastern Caribbean Civil Aviation Authority	2
Embraer	1
Ethiopian Civil Aviation Authority	2
Eurocopter	1
Extra Aircraft Company	1
FAA	17
Flight Design GmbH	1
Flybe	2
Government of Gibraltar	1
Heathrow Airport Ltd	3
International Civil Aviation Organisation	3
London City Airport	2
NATS	1
Netjets Transportes Aeros	1
No1 Elementary Flying Training School, RAF	1
P&M Aviation	1
Pratt & Whitney Canada	1
Raytheon Aircraft Company	1
Royal Airforce	8
Ryanair	1
Serbian Civil Aviation Department	1
Transport Canada	6

Note: Please note that a number of Safety Recommendations are made to more than one Addressee[38]

As outlined in our comments on the accident Report, AIPA is of the view that the ATSB appears to have lost its way in terms of the vastly improved relationship with CASA. While we understand the logic of Miller's statement:

> "Ultimately, the ATSB's contribution will be judged, not by the quality of its analysis, conclusions and safety recommendations per se, but by the influence those recommendations have on improving the aviation safety system..."[39]

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38 See AAIB, Annual Safety Report 2011, page 10 at http://www.aaib.gov.uk/cms_resources.cfm?file=/Annual%20Safety%20Report%202011.pdf

39 Miller *op. cit.*, page 6

we find it difficult not to conclude that it is "the quality of its analysis, conclusions and safety recommendations" that have paid the price. By way of balance, however, we also believe that it is inappropriate to judge ATSB against the inaction of those to whom the safety recommendations are addressed!

Is CASA's Role in the Aviation System being Adequately Scrutinised?

While AIPA may suspect that the Miller Review inexorably shifted the CASA-ATSB relationship, it appears to have largely been a one-way street. In following on from his comments on the ATSB, Miller says of CASA:

> "19.4CASA will not succeed in making the contribution to aviation safety expected of it unless, in relation to ATSB investigations, it:
>
> - engages actively with the ATSB during investigations, providing expert assistance where appropriate;
> - co-operates fully with ATSB investigations by providing information required for the investigation in a timely fashion;
> - co-operates fully with the ATSB by providing timely responses to the ATSB when asked for comment;
> - makes available sufficient time and resources to respond meaningfully to safety issues identified by the ATSB in its reports and safety recommendations; and
> - seriously considers, and where appropriate follows, the ATSB's safety recommendations, careful to ensure that, where it decides not to take up a safety recommendation, it discusses its reasons with the ATSB and that its public response is in terms appropriate to a healthy relationship between the two agencies.
>
> 19.5 If CASA does not invest enough in its relationship with the ATSB to draw benefit from the ATSB's work, CASA will not be able to maximise the contribution to air safety expected of it..."[40]

While CASA has been extremely busy trying to get the long-awaited legislative changes up and running, the timeliness of the CASA response to Safety Actions wouldn't satisfy the Miller ambitions. On the other hand, the complete absence of ATSB commentary on the regulatory scheme and CASA's regulatory activities begs the question about the level of scrutiny now being applied to CASA.

AIPA believes that the ATSB pendulum has certainly passed the middle. We are not saying that CASA is always wrong and, clearly, we are not saying ATSB is always right. What we are saying is that we can see no justification for the present silence when it comes to the regulatory framework and its application.

Is the MOU Between the ATSB and CASA Contributing to the Problem?

With one exception, AIPA does not view the current MOU as a contributor to the issues we have raised.

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40 *Ibid.*, pages 24-25

The exception relates to the handling of safety actions. The MOU states:

> **5.3 Safety action**
>
> 5.3.1 The ATSB Understands actions may be taken by CASA in response to safety issues during the course of an ATSB or CASA investigation, and the ATSB will include this information in the investigation report to the extent it is practicable to do so. **The ATSB encourages safety action that obviates the need to make safety recommendations.**" [emphasis added] [41]

AIPA raises the point that this approach could be seen as a way to negotiate away the recording of actions that the ATSB reasonably believes should have been instituted before the event and that they would otherwise have recommended on the public record. This may be unintended or it may be symptomatic of an excessive pursuit of the "no blame" ideal. Furthermore, it is most likely to make reports appear more superficial than the quality of the underlying investigation deserves, thus creating an unnecessary reputational risk.

AIPA notes that the current MOU does not go anywhere near as far as Miller recommended in terms of the ATSB providing CASA with far greater information than has traditionally been the case. However, it is clear to us that the drive by CASA for ATSB to release previously protected information continues, as we discuss later.

An Aside on Other ATSB MOUs

It appears that a common, but neither universal nor complete, approach to the inter-agency cooperative requirement is to negotiate MOUs with certain organisations. However, it is not clear how important these MOUs are to the ATSB in cementing inter-agency relationships. For example, the interface with State Coroners is specifically dealt with in the TSI Act and while an MOU has been negotiated with the Chief Magistrate of Tasmania as the State Coroner, it hasn't spread to the other State and Territory Coroners. In another example, there is an MOU with Airservices Australia on the basis that "...It is acknowledged that Airservices also has regulatory and associated internal investigatory roles in relation to its safety functions..." even though there is no apparent head of power in either the *Air Services Act 1995* or the associated Regulations to conduct investigations.

AIPA does not propose to comment in this submission on the MOU between the ATSB and the Department of Defence or on any Commonwealth-State arrangements.

Directly Interested Parties

AIPA has previously expressed concern as to the extent that 'directly interested party' (DIP) consultation may impact on the timeliness and quality of the final report. We acknowledge the necessity to confirm facts and to identify errors of

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41 ATSB, *Memoranda of Understanding between the Australian Transport Safety Bureau and the Civil Aviation Safety Authority*, at http://www.atsb.gov.au/about_atsb/memoranda.aspx accessed 10 October 2012, page 8

fact. We also fully support the concept of providing a measure of procedural fairness to people involved in events subject to investigation.

On the other hand, the DIP process does not demand consensus and should not provide a vehicle for pressure to be brought on investigators or the ATSB in general. Undoubtedly, the Committee will explore in detail each element of the process that led to 33 months elapsing between accident and publication and, in particular, the contribution of the DIP process.

AIPA notes that, particularly for the pilot in command in this specific event, the ABC 'Four Corners' program raises significant questions about the success or otherwise of the DIP process. In the normal context, i.e. where a report does not attract the interest of the Senate, we remain unsure of the process whereby a DIP can raise a voice of dissent. While it may be suggested that the 'no-blame' approach should avoid the need for procedural review, the reality is that mistakes of fact and erroneous analysis can occur and the ATSB is, through no fault of its own, incapable of preventing "any adverse inference [being] drawn from the fact that a person was involved in a transport safety matter".

THE THIRD TERM OF REFERENCE

In some ways, the third TOR puts CASA back in the spotlight:

> (c) the mechanisms in place to ensure recommendations from aviation accident investigations are implemented in a timely manner; and

Safety recommendations normally apply to Government agencies, air navigation service providers, manufacturers, operators, maintenance organisations or third party providers of training, people or specialist services. Despite Miller's "influence' test for the ATSB, the reality is that a non-regulatory body such as the ATSB needs a 'friend with muscle' to ensure that recommendations are properly implemented. CASA can generally provide that 'assistance' where legally empowered to do so or, in other cases, through cooperative arrangements with similar regulators.

The problem arises when CASA does not act in a timely manner or, in some cases, not at all.

AIPA presumes that, if and when the ATSB fails to adequately 'influence' CASA to do something that it undertook to do, the matter would be resolved by the Secretary of the Department of Infrastructure and Transport (DIT) in the first instance and eventually by the Minister. Ultimately, given the constant tensions of priorities and resources, the resolution of the issue will be driven only by the politics of the inaction, i.e. as a function of the length and strength of public attention.

One point worth reinforcing from a previous comment relates to promising to implement something just to avoid a safety recommendation being made – in that case, is the proposed action tracked by anyone?

THE FOURTH TERM OF REFERENCE

As a related matter, AIPA is concerned about safety reporting and the impact of proposals to grant CASA greater access to information reported to the ATSB.

Specifically, we are concerned about the proposed Transport Safety (Confidential Reporting Scheme) Regulations 2013 in which it is proposed, among other things, to provided CASA with open access to mandatory notifications of prescribed aviation events.

Such access is not currently permitted.

AIPA is not convinced that such a substantial policy shift through changes to subordinate legislation provides appropriate Parliamentary scrutiny. We believe that the ATSB is attempting through legislation to abrogate a reporter's common law privilege against self-incrimination. We believe that the current proposal will adversely affect the free flow of safety-related information.

Reporting of Safety-related Information in Australia

This whole area is complex, often emotional rather than rational and, in AIPA's view, not well explained by the architects of change. The core of the problem is balancing the rights of individuals (normally the emotional bit) against the needs of society (usually the rational bit). Although narrowly focused, this Committee's Inquiry into *Pilot Training and Airline Safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010* touched upon some of the issues.

The individual right is the privilege against self-incrimination. The Australian Law Reform Commission (ALRC) clarifies the privilege:

> Although broadly referred to as the privilege against self-incrimination, the concept encompasses three distinct privileges: a privilege against self-incrimination in criminal matters; a privilege against self-exposure to a civil or administrative penalty (including any monetary penalty which might be imposed by a court or an administrative authority, but excluding private civil proceedings for damages); and a privilege against self-exposure to the forfeiture of an existing right (which is less commonly invoked).[42]

AIPA does not intend to indulge in a substantive legal debate, but offers the following commentary to set the scene for what generates some of the emotional aspects of safety reporting.

Justice Margaret Wilson had the following to say (including extensive cross-referencing not repeated here) in a speech to the Queensland Bar Association conference in 2006:

> 1. "A cardinal principle of our system of justice", a "bulwark of liberty" and "fundamental to a civilised legal system": these are some of the ways our highest Courts have described the privilege against self-incrimination. It is a substantive right entitling a person to refuse to answer any question, or produce any document, if the answer or the production would tend to incriminate that person.
>
> ...

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42 ALRC, 2006, *Privilege in respect of self-incrimination in other proceedings*, in Uniform Evidence Law (ALRC Report 102) at http://www.alrc.gov.au/publications/15.%20Privilege%3A%20Other%20Privileges/privilege-respect-self-incrimination-other-proceedings accessed 10 October 2012

6. The privilege against self-incrimination is now recognised as an important individual human right – that is, one which may be asserted by natural persons but not corporations. It can apply outside judicial proceedings, in non-judicial inquiries and investigations. But the assertion of that right can impede other legitimate interests, such as the protection and enforcement of an opposite party's civil rights and the exercise of investigative and regulatory powers by relevant authorities. In recent years law reform agencies and Legislatures have given increasing attention to striking the right balance between such competing interests.

and concluded with:

"21. The Lindgren Committee submitted to the Australian Law Reform Commission's inquiry into Uniform Evidence Law that the Uniform Evidence Acts should be amended to abrogate the privileges so that an order for disclosure must be obeyed, but that there should be use and derivative use immunities given. In a subsequent submission the Committee suggested that the privileges should be abrogated in relation to documents in existence before a disclosure order was made; that a person should not be able to resist a disclosure order at any stage of a civil proceeding in reliance on either of the privileges, and that a certification procedure should be introduced (except in relation to pre-existing documents or things). Ultimately the ALRC and other Commissions undertaking the review recommended –

(a) that the privileges not be available in respect of orders made in civil proceedings requiring a person to disclose information about assets or other information, or to attend court to give evidence regarding such assets or other information, or to permit premises to be searched; and

(b) that there should be a use immunity in relation to documents created or information supplied pursuant to the court order (but not a pre-existing document or thing) .

22. The Queensland Law Reform Commission's report was finalised before the second submission of the Lindgren Committee. It did not support the abrogation of the privileges in relation to disclosure orders, saying that the provision proposed by the Committee would require rigorous examination particularly to determine whether the abrogation was justified and appropriate in accordance with the QLRC recommendations in its report on The Abrogation of the Privilege against Self-Incrimination, and whether there were exceptional circumstances justifying a derivative use immunity.

23. A basic philosophical divide seems to underlie the differing approaches of the ALRC and the QLRC to the privilege against self-incrimination and the penalty privilege. It is not just a question of the efficacy and convenience of a certification procedure. The QLRC regards the privileges as so important that they can be abrogated only by legislation specific to the instance in hand, while the ALRC (and others who support the Uniform Evidence Acts approach) give more weight to a generalised recognition of the need to protect and enforce other legitimate interests, such as an opposite party's civil rights and the exercise of investigative and regulatory powers by relevant authorities. These are matters of policy, for decision by the respective Legislatures. As yet, those Legislatures have not signalled their responses to the reports, which are still under consideration." [43]

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[43] Wilson, Margaret J, Aspects Of Privilege: Self-Incrimination, speech to the Bar Association of Queensland Conference, 04 March 2006

The rational argument is expressed by Miller in his comments about information sharing and the concept of "restricted information" as used in the TSI Act:

> "24.4The broad range of information covered by the definition of the term "restricted information" and the limits on its disclosure leads to unnecessary tension between the ATSB and CASA, and seems to work against the interests of aviation safety. Two circumstances need to be considered. The first is when, in the course of an investigation the ATSB discovers information that may lead to the conclusion that allowing something to continue presents a serious, and possibly imminent, risk to air safety. The second is where information evidences the occurrence, or potential occurrence, of an unsafe act but not necessarily a serious and imminent risk to air safety.
>
> 24.5 The concern of the Executive Director is that, if the information is disclosed to CASA it might be used for disciplinary, civil, administrative or criminal proceedings thereby affecting the willingness of industry and the public, in the future, to openly provide information to the ATSB. The Executive Director also expressed concern that disclosure of restricted information to CASA could enable adverse inferences to be drawn from the fact that a person is subject to an investigation.
>
> 24.6 The concern for CASA is that, if it is given information it cannot use or disclose, especially where there is a serious and imminent threat to safety, it is powerless to act immediately in the interests of aviation safety. Although this is unlikely to arise often, it has arisen in the recent past and when it does arise the consequences for the safety of passengers if the matter cannot be dealt with swiftly are dire."[44]

Miller continues to discuss the core of the dilemma, but in the generic terms of information confidentiality rather than the specifics of the consequences of breach of confidentiality on individual rights:

> "25. Key considerations
>
> 25.1 It is when these two competing concerns come into conflict that difficulties arise. A policy decision is required on whether the long term benefit of keeping safety related information confidential is to be preferred over the more immediate need to ensure that lives are not lost. In the Review's opinion, the immediate safety need must take priority.
>
> 25.2 There are a number of considerations to be taken into account in determining how information gathered in the course of an investigation should be used, and the circumstances in which it should be disclosed. While not everyone would agree that the following list represents the most important of these, this list is based on the considerations identified most frequently to the Review as being relevant to the question of information sharing between the ATSB and CASA:
>
> - there needs to be a free flow of information to accident investigators in the interests of discovering the likely causes of accidents and incidents and learning relevant safety lessons from them;
> - this requires that, as a matter of general principle, information should not be disclosed for the purposes of disciplinary, civil, administrative or criminal proceedings, except in limited, clearly defined circumstances. Continued cooperation of industry and the public in future flows of information depends on this;

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44 Miller, *op. cit.*, pages 39-40

- not all information collected in the course of an investigation needs to be protected. Much of the information is technical or already in the public domain. Not all information is of an evidentiary quality for the purposes of disciplinary, civil, administrative or criminal proceedings against individuals. Information that does not need to be protected should be able to be disclosed by the investigator to the regulator in a useful form and timely manner;
- there is a balance to be struck, in the interests of aviation safety, between protecting information that could be used for disciplinary, civil, administrative or criminal proceedings and disclosing information to CASA where there is a serious and imminent risk to air safety; and
- where there is a serious and imminent risk to air safety, restricted information provided to CASA should be in a form that can be used by CASA for the purpose of enhancing, maintaining and promoting aviation safety, but not for the purposes of disciplinary, civil, administrative or criminal proceedings. CASA should have access to that information as soon as possible so that it can take immediate safety action, consistent with its objects which include "preventing aviation accidents and incidents".[45]

So what will draw the emotional towards the rational in this pursuit of the free flow of safety-related information?

The Tie that Binds – Trust

Interestingly, everyone in the debate has the same mantra. If it were not for the mindless repetition of that other mantra "safety is our highest priority", AIPA believes that the safety information mantra should be the glue that joins the emotional and rational debates about the use of safety-related information. That safety information mantra is "it's all about trust".

The Executive Summary and the Introduction to Australia's 2007 Working Paper to the ICAO Technical Commission[46] encapsulates the proposition well:

> "Safety investigation is dependent on a free-flow of information from the aviation industry that it serves. This freeflow of information is founded on trust — trust that the information divulged will not be used inappropriately for punitive purposes, trust that the information will be afforded the requisite confidentiality, and trust that the information will be used for the purpose of advancement of aviation safety. That trust is based, amongst other things, on industry consultation that leads to appropriate legislated protections for the safety information, with clearly defined exceptions. These requirements lie behind the operative functions of safety investigation detailed in Annex 13 — *Aircraft Accident and Incident Investigation*."

and

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45 *Ibid.*, pages 40-41

46 ICAO, *Enhancement of Fundamental Principles Concerning Confidentiality and the Non-punitive Nature of Safety Information*, Technical Commission Working Paper A36-WP/126, 31 August 2007

"1. INTRODUCTION

1.1 A successful aviation safety reporting and investigation system is based on a strong foundation of trust between the accident investigation authority and the aviation industry it serves. Trust engenders a free-flow of safety information, this being the foundation on which aviation safety is to be progressed. That trust is based, amongst other things, on appropriate legislated protections for the safety information regarding confidentiality and prevention from punitive use. Any exceptions to the protections must be clearly defined and operate in a manner that strikes an appropriate balance between the need for disclosure and the need to protect the safety information which underpins the safety reporting and investigation system.

1.2 Annex 13, Standard 3.1, identifies the principle that safety investigation of an accident or incident is to be non-punitive. Standard 5.12 requires that certain records in an accident investigation be protected from disclosure. Attachment E, adopted in November 2006, provides guidance for the protection of safety information from inappropriate use. Standards 3.1 and 5.12, as well as Attachment E, acknowledge that the vast majority of aviation accidents and incidents are the result of human error where no malice is intended and that protections for information from the reports and investigations of these events are appropriate. Australia strongly supports this ideology but is also concerned to ensure that the protections do not have the result of inadvertently inhibiting the advancement of safety. The protections need to be clear and workable. The aim of this paper is to promote the need for the protection of sensitive safety information while arguing that more work may be required to ensure they can be implemented."

AIPA believes that the development, and perhaps more importantly, the maintenance of that essential trust are the greatest roadblocks to ensuring, if not enhancing the free flow of safety-related information.

Abrogation of privilege by regulation without Parliamentary scrutiny, disallowance procedures notwithstanding, will do absolutely nothing to build trust with the regulator and will, as collateral damage, tarnish the ATSB even further.

We see the aviation industry and the regulator pulling apart philosophically in regard to the use of safety-related information. That separation is an emotional response to a palpable lack of trust, not so much with the courts or the Australian legal system in general, but with the regulator and how it is perceived to go about its business. AIPA readily acknowledges that the issue is about perception more than actuality, a gap that we are optimistic can be closed with a far better communications strategy.

Unfortunately, closing the gap certainly won't be helped by the issues surrounding the Pel-Air accident.

Just Culture – Born of a Failure of Trust

The industry is driving hard towards legislating for greater protections for safety-related data and for reporters of safety-related matter. Suffice it to say that "Just Culture" has its antecedents in combatting the adverse outcomes of a punishment culture on reporting culture – a philosophical breach of trust.

An excellent treatment of "Just Culture" and the legislative issues can be found in the paper titled "*Criminalisation of Air Accidents and the Creation of a Just Culture*", which won the European Air Law Association prize in 2010 for Mildred Trögeler:

> " Safety is a very complex, multi-faceted activity that encompasses all fields of aviation and affects every single individual involved in aviation. Accidents are the result of an undesirable chain of events. To prevent the repetition of such events, the investigation process requires an effective safety occurrence reporting system, which means that all relevant accidents and incidents are reported and comprehensively documented by aviation professionals. Therefore, aviation professionals must be dedicated and contribute fully to the safety investigation of the reported occurrences..."
>
> In the aviation community, there is increasing concern over a perceived trend of authorities to initiate criminal prosecutions against aviation professionals. The fact that incident reports and material submitted in the course of safety investigations often find their way into separate judicial investigations has led to an increased fear amongst aviation professionals that routine operational decisions could now become the basis for criminal prosecutions. This is detrimental to aviation safety as it could, in turn, lead to a reduced willingness of occurrence reporting by those involved in such incidents or accidents. The chilling effect which potential prosecution has on openness and the flow of safety information following an aircraft accident or incident has an adverse effect on aviation safety and prevents lessons from being learned. This dilemma has impeded the effectiveness of safety investigations for decades." [47]
>
> "The key of a Just Culture is to strike the right balance between the need to improve aviation safety and the recognition of the judicial system's legitimacy to investigate and prosecute the committed crimes. At the heart of the establishment of a Just Culture lies three core principles.
>
> Firstly, the determination of appropriate safeguards which will ensure that individuals involved in safety investigations are not punished for their reported actions or omissions. Secondly, the protection granted shall not apply to cases where unacceptable behaviour is involved such as wilful misconduct or gross negligence. Thirdly, the improvement of aviation safety should be achieved by encouraging full contribution to safety investigations.
>
> To ensure that the Just Culture concept works out effectively in practice, its principles have to be laid down in a suitable regulatory framework, which provides the indispensable legal certainty..."[48]

and finally

> "...A Just Culture does not call for absolute protection of aviation safety at the expense of the proper administration of justice but for the balancing of conflicting interests; namely besides the proper administration of justice and the enhancement of aviation safety, the compliance with privacy laws, the protection against self-incrimination and the acceptance of FOI rights.

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47 Trögeler, Mildred, 2010, *Criminalisation of Air Accidents and the Creation of a Just Culture,* European Air Law Association at http://www.eala.aero/library/Mildred%20Trgeler%20EALA%20prize.pdf accessed 10 October 2012, page 1

48 *Ibid.*, page 1

> There is general agreement that aviation professionals should not be granted immunity against prosecution. Instead, criminal liability should be restricted to cases where the person involved has breached a legal obligation and acted in a grossly negligent manner or intentionally and where the human failure was not triggered by system-induced failures..."[49]

Although arguably born from an environment of distrust, the "Just Culture" model has become a defence against the consequences for individuals of a misuse of safety-related information. The problems identified by Trögeler in the European context are also present in the Australian context. The CASA magazine 'Flight Safety Australia' published in 2011 an excellent article called "Accidental Justice"[50] that canvasses many of the issues. In that article, Dr Jonathan Aleck brings a sobering perspective to the compatibility of "Just Culture" models with existing legislative frameworks:

> "Aleck sees 'just culture' as an organisational, rather than a legal ideal. 'Organisations can do just culture. If you say, "our organisation has a 'just culture' ethic and it means this", then everybody knows what that organisation means by 'just culture', even if another organisation might characterise the idea differently.
>
> 'But you've got to be careful when you start saying 'just culture" should infuse the relationship between the industry and the regulator. We work to a much higher bar – the more demanding standards embraced by the rule of law and the principles of natural justice.
>
> 'It's dangerous to import uncritically what is a useful ethical principle in accompany environment into the relationship between citizens and their government.'[51]

AIPA has the utmost faith in Dr Aleck as an ethical, intellectual and practical regulator and we certainly respect his advice that the "Just Culture" model may be inherently incapable of being imported into current Australian law. On the other hand, if every frontline CASA employee espoused Dr Aleck's view of what it is to be a regulator, then defensive behavioural models would be unnecessary. Unfortunately, none of CASA's selection, training or control processes is likely to get us there in any reasonable timeframe, so we need alternatives.

One option may be to look to other jurisdictions for ways of reducing, or even removing, that incompatibility between behavioural and legislative protection.

The Danish Model

Earlier this year, AIPA members under the banner of the Australian Airline Pilots' Association (AusALPA) made submissions to the ATSB as part of the consultative process of the proposed Transport Safety (Confidential Reporting Scheme) Regulations 2013. In that submission and the associated Discussion Paper (attached to this submission as Attachment 1 and 2), the example of Denmark was

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49 *Ibid.*, page 39

50 CASA, *Accidental Justice*, Flight Safety Australia, September-October 2011, pages 8-15

51 *Ibid.*, page 13

put forward as a model for revised legislation that may well take the heat out of the abrogation of privilege debate. In part, the AusALPA submission said:

> "Fortunately, there already exists "landmark legislation and by far one of the best in the world in terms of creating a 'just culture' " (EPRC, 2006, p. 57) that Australia could adapt to our own laws and regulations. Under regulation BL8-10 (Civil Aviation Administration - Denmark, 2009), Denmark introduced a single mandatory, non-punitive, and yet strictly confidential occurrence reporting system. Individuals are required to report a prescribed list of occurrences and encouraged to report other safety events through, where applicable, their employer who is required to forward the report and any investigation to the regulator. A failure to report is punishable by fines while reporters receive immunity from punishment for the reported occurrence (with exceptions for sabotage and negligence due substance abuse), provided that they have been full and open about the occurrence. Details of individual reports remain confidential, with individuals breaching confidentiality exposed to criminal offences. However, the data storage arrangement retains personal details for five years, allowing follow up investigations and verification by the regulator. In return for exemption from freedom of information (FOI) requirements, the Danish regulatory authority is required to publish six monthly statistical summaries based on the de-identified data from occurrence reports.
>
> The result of this legislation has been a stunning improvement in Denmark's reporting culture. Reporting rates increased more than ten-fold (EPRC, 2006, p. 57), with reporting of loss of separation incidents, mandatory both before and after the change, tripling (Norbjerg, 2003, p. 157). In a survey on air traffic controller (ATCO) reporting cultures the EPRC identified that Denmark:
>
> - Had one of the best reporting cultures in the world,
> - Demonstrated strong political support from employees and management,
> - Strong peer support coupled with a rejection of antisocial behaviours, while
> - Incidents are treated as worthwhile learning opportunities. (EPRC, 2006, p. 58)
>
> SMSs need the ability to integrated occurrence reports with other SMS sources such as flight data analysis events. Under the Danish system, the regulator sees not only the report but also the SMS activities in response to a report. The need for separate reporting schemes, remote from SMS activities, such as REPCON and ASRS, is reduced."

AIPA believes that pushing forward with the Transport Safety (Confidential Reporting Scheme) Regulations 2013 in pursuit of the Miller recommendations without regard to the consequences of abrogating the reporter's common law rights will be extremely damaging to the cause of aviation safety in Australia. Until CASA has consistently shown that it exercises its powers for remedial and protective purposes only and certainly not for retribution and punishment, there will be no trust.

Unfortunately, AIPA sees that task as possible (and most desirable) but recognises that CASA faces a marketing nightmare under its current practices of dissemination of information to the public. Given the high personal cost that CASA action may bring to our members, AIPA is reticent to give up any current protections in return for a mere promise that "we'll be model safety regulators".

Recommendation

AIPA recommends that the proposed Transport Safety (Confidential Reporting Scheme) Regulations 2013 not be made until appropriate Parliamentary scrutiny has been applied to the legislative abrogation of the privilege against self-incrimination and the likely consequences.

Recommendation

AIPA recommends that the legislative arrangements to provide a balanced approach to aviation safety reporting made by Denmark should be examined for their utility as a model for Australian legislative reform.

-- END –

Attachments:
1. AusALPA Submission to the ATSB "re: Enhanced Aviation Mandatory and Confidential Reporting" S05-0009 dated 27 July 2012 (with Appendix 1)
2. AusALPA Discussion Paper "Enhanced Aviation Mandatory and Confidential Reporting" Ref No S05-0009, July 2012

APPENDIX 1

AusALPA response to ATSB Enhanced Aviation Mandatory and Confidential Reporting

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27 July 2012

By Electronic Transmission

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Email: **regulation.consultation@atsb.gov.au**
repconreform@atsb.gov.au

Our Ref: S05-0009

Dear Steven,

Re: Enhanced Aviation Mandatory and Confidential Reporting

On behalf of the Australian Airline Pilots' Association (AusALPA), thank you for providing us with the opportunity to review the three changes to the ATSB's mandatory and confidential aviation reporting systems.

AusALPA consists of the Australian and International Pilots' Association (AIPA) and the Australian Federation of Air Pilots (AFAP) and represents more than 5000 professional pilots within Australia on safety and technical matters.

AusALPA takes an active stake in the Australian aviation industry, participating in inquiries in the Australian Aviation sector and contributing members to various industry forums. AusALPA is also an active member of the global pilot body, the International Federation of Airline Pilots' Association (IFALPA), which represents over 100 000 airline pilots internationally.

AusALPA has recently reviewed the proposed changes and would like to put forward following comments for the ATSB's consideration.

Summary

Aviation safety and operational management practises are evolving and occurrence reporting systems and obligations must evolve to meet the needs of current practise. The provision of safety information by frontline personnel to operators, investigators and regulators is a key source of safety data, which is often unobtainable by other safety feedback mechanisms. However, occurrence-reporting systems can fail if

there is a perception that the information will be misused. Any changes in reporting legislation and practises must be enacted only after full consultation and careful consideration of different perspectives, to ensure the outcome does not adversely affect the reporting culture.

This submission addresses the Australian Transport Safety Bureau's (ATSB) proposed changes to Australia's mandatory and confidential aviation reporting systems, namely:

> A proposal to improve the ATSB's and the Civil Aviation Safety Authority's (CASA) access to mandatorily supplied notifications of aviation accidents and incidents;
> The draft Transport Safety Investigation Amendment Regulations 2012 (No. 1) which clarify what aviation accidents and incidents must be reported; and
> The draft Transport Safety Investigation (Voluntary and Confidential Reporting Scheme) Regulation 2012 which would replace the current REPCON confidential reporting regulations.

1. Proposal to Improve the ATSB's And CASA's Access to Mandatorily Supplied Notifications of Aviation Accidents and Incidents

AusALPA acknowledges and supports the need for CASA to be informed regarding risks within aviation. AusALPA, however, is very concerned by the direction of the proposal and considers that it may have detrimental implications on occurrence reporting practises by persons and organisations involved in aviation. Additionally, AusALPA is concerned by some significant misinterpretations in the ATSB consultation paper 'Enhanced Aviation Mandatory and Confidential Reporting' (ATSB, 2012) regarding international best practise in occurrence reporting schemes.

Fundamentally, CASA and the Commonwealth Director of Public Prosecutions have administrative and punitive powers as laid out in its enforcement manual:

> *"CASA may also act to compel authorisation holders to comply with safety standards, or to prevent them from continuing to breach those standards, through processes involving the variation, suspension or cancellation of authorisations, the imposition of conditions on authorisations and by entering into, and where necessary, enforcing voluntary undertakings.*
>
> *In addition, CASA has the power to initiate action with a view to penalising persons for contravening regulatory requirements, although the pursuit of such action is in the hands of the Commonwealth Director of Public Prosecutions (CDPP). From CASA's perspective, the implementation of such punitive action as may be necessary and appropriate is meant to deter those persons (specific deterrence) and others (general deterrence), from contravening the safety standards specified in the legislation in the future, by encouraging them to reflect on the consequences of their conduct" (CASA, 2009, para 2.5).*

With "strict liability" provisions applying to numerous Australian aviation laws and regulations disclosing, via a mandatory report, that an event occurred is self-incrimination.

While the Aviation Self Reporting Scheme (AUS ASRS) enables some protection from administrative action for inadvertent regulatory breaches, AUS ASRS contains fundamental flaws from the perspective of encouraging open reporting.

ASRS reporters must identify the regulations they have inadvertently breached. Since only inadvertent regulatory breaches receive protection, there is a likelihood that reporters to the mandatory scheme will be unaware of regulatory breaches discovered during any investigation process. In contrast, the similar, and very successful in terms of receiving reports, US Aviation Safety Reporting System (US ASRS), provides protection from civil penalties and certificate suspensions provided the occurrence, which involved the inadvertent regulatory breach, is reported (Federal Aviation Administration, 1997).

The proposal to provide CASA with open access to mandatory reports may result in AusALPA recommending its members to seek legal advice prior to submitting a mandatory report, primarily to determine whether the report is required, and that the contents of the report protect the member's rights. This course of action would be unfavourable to aviation safety.

International Civil Aviation Organisation (ICAO) Standards and Recommended Practises (SARPS)

ICAO Annex 13 contains the SARPS on mandatory incident reporting. While the standard does not require protections for mandatory reporting schemes, Attachment E to Annex 13 provides guidance on recommended practises for protecting information, which specifically include mandatory reporting. States are encouraged to adapt their laws and policies to prevent 'inappropriate use' of safety information. "Inappropriate use refers to the use of safety information for purposes different from the purposes for which it was collected, namely, use of the information for disciplinary, civil, administrative and criminal proceedings against operational personnel, and/or disclosure of the information to the public" (ICAO, 2010a, pp. ATT E-1). Exceptions from protection provisions should only occur where:

> "conduct with intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct" occurs; or
>
> release of the information is "necessary for the proper administration of justice, and that its release outweighs the adverse domestic and international impact such release may have on the future availability of safety information" (ICAO, 2010a, pp. ATT E-2,3).

AusALPA's position is that the recommended practises in Attachment E should be a standard. This position is aligned with the conclusions of the 2010 ICAO High Level Safety Conference that, "the protection of information from all available sources of safety data from improper use is essential to ensure its continued availability" (ICAO, 2010b, pp. 3-7).

Misinterpretation of Foreign Practises

The consultation paper cites the US and United Kingdom (UK) practise as demonstrating the need for CASA to have open access to occurrence reports filed with the ATSB. In the case of the US, FAR part 830 only specifies 12 categories, mostly serious mechanical failures which would equate to serious incidents (e.g. "sustained loss of the power or the thrust produced from two or more engines"), as being mandatorily reportable occurrences to the National Transportation Safety Board (NTSB) (U.S. Government, Pt 830.5). Instead, the US is heavily reliant on voluntary, confidential reporting through schemes such as US ASRS, administered by NASA and providing immunity incentives for reporting. In the UK, the Air Navigation Orders prevent mandatory reports being

the sole source used in regulatory proceedings (United Kingdom, 2009, Pt 30, 226 (17)).

Both the US and UK occurrence reporting models have serious flaws, outlined in the attached AusALPA discussion paper, so citing these countries as ones whose practises we should adopt is not supported.

An Alternative Approach

AusALPA recognises the need for CASA to gather as much safety information as practical. Inherent in a systemic risk based approach to aviation safety is the provision of valid hazard and risk information. To be successful, risk management requires large incident databases and "assurance that data for risk assessments are complete, meaningful, and available to decision makers" (United States Government Accountability Office [U.S. GAO], 2011, p. 37). The challenge with integrating occurrence reporting with other safety management system (SMS) information is that without adequate protection provisions the occurrence data will almost certainly be unrepresentative and so invalid. However, providing protections outside the SMS process, as occurs with reports to REPCON or ASRS type schemes means that it is unavailable. If Australia's occurrence reporting schemes are to be successfully integrated into SMS activities, an alternative approach is required.

Fortunately, there already exists "landmark legislation and by far one of the best in the world in terms of creating a 'just culture' " (EPRC, 2006, p. 57) that Australia could adapt to our own laws and regulations. Under regulation BL8-10 (Civil Aviation Administration - Denmark, 2009), Denmark introduced a single mandatory, non-punitive, and yet strictly confidential occurrence reporting system. Individuals are required to report a prescribed list of occurrences and encouraged to report other safety events through, where applicable, their employer who is required to forward the report and any investigation to the regulator. A failure to report is punishable by fines while reporters receive immunity from punishment for the reported occurrence (with exceptions for sabotage and negligence due substance abuse), provided that they have been full and open about the occurrence. Details of individual reports remain confidential, with individuals breaching confidentiality exposed to criminal offences. However, the data storage arrangement retains personal details for five years, allowing follow up investigations and verification by the regulator. In return for exemption from freedom of information (FOI) requirements, the Danish regulatory authority is required to publish six monthly statistical summaries based on the de-identified data from occurrence reports.

The result of this legislation has been a stunning improvement in Denmark's reporting culture. Reporting rates increased more than ten-fold (EPRC, 2006, p. 57), with reporting of loss of separation incidents, mandatory both before and after the change, tripling (Norbjerg, 2003, p. 157). In a survey on air traffic controller (ATCO) reporting cultures the EPRC identified that Denmark:

> Had one of the best reporting cultures in the world,
> Demonstrated strong political support from employees and management,
> Strong peer support coupled with a rejection of antisocial behaviours, while
> Incidents are treated as worthwhile learning opportunities. (EPRC, 2006, p. 58)

SMSs need the ability to integrated occurrence reports with other SMS sources such as flight data analysis events. Under the Danish system, the regulator sees not only the report but also the SMS activities in response to a report. The need for separate reporting schemes, remote from SMS activities, such as REPCON and ASRS, is reduced.

2. Draft Transport Safety Investigation Amendment Regulations 2012 (No. 1) Which Clarify What Aviation Accidents and Incidents Must Be Reported

AusALPA has no significant issues with moving from a prescribed list of reportable occurrences towards a risk based guidance approach. This should make it easier to assess and respond to new and emerging threats and is consistent with SMS principles. Two areas of concern, which AusALPA considers will require careful attention, are the following:

The need for comprehensive guidance material and an education programme to ensure that the transition process goes smoothly.

The potential for operators less open to disclosure of reportable incidents not to report incidents to the authorities based on their safety risk assessment. These concerns would be mitigated by providing protection to reporters under the mandatory reporting scheme, as stated in the response to section 2.

In the section containing a proposal to clarify reputability requirements, the consultation paper raises a seemingly unrelated proposal on "disclosure of information for the management of hazards and risks" (ATSB, 2012, p. 7). AusALPA supports the proposal in a general sense, as we believe that occurrence information is invaluable in improving aviation safety. Any supporting legislation, however, must contain adequate protection to ensure the privacy of individuals involved in occurrences. A layered access regime may be warranted; with public access limited to brief summaries, whilst professionals, involved in safety management activities (airline safety managers, researchers and the like), are provided with greater access, subject to them having entered into an enforceable and legal undertaking to use the information for safety related purposes only.

3. Draft Transport Safety Investigation (Voluntary and Confidential Reporting Scheme) Regulation 2012 Which Would Replace the Current REPCON Confidential Reporting Regulations

AusALPA supports the concept of a multi-modal confidential reporting scheme and using the restricted information provisions under the Transport Safety Investigation Act (2003) to protect the information from abuse. A separate confidential avenue for reporting is necessary, however, given the lack of protection provided to reporters under the mandatory reporting scheme. A major area of concern is ATSB's present authority to reject a REPCON report on the basis that an event is reportable under mandatory reporting requirements. It is easily conceivable, with no protection presently to reporters under Australia's mandatory scheme, that a reporter may only be willing to report some information confidentially for fear of sanctions by employers or CASA. Should the REPCON report be rejected, this will probably lead to the event going unreported. Whilst if the REPCON report is accepted, the confidential aspects of an event may well result in two records (the REPCON record, and a minimalist Mandatory Report) which are unable to be combined. The solution is not to amend REPCON; rather AusALPA advocates providing reporter protections within the mandatory reporting scheme.

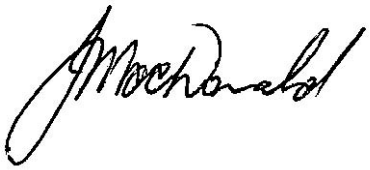
Conclusion

Whilst AusALPA recognises CASA's need for improved access to safety information, the proposal to allow open access to mandatory occurrence reports in the consultation paper is completely unacceptable to the Association and its members. Furthermore, AusALPA firmly believes that is not in the interest of aviation safety, as a whole. Improved access should only occur following a comprehensive review of reporting requirements that create adequate protections and incentives for reporters to be open and frank regarding their experiences and actions. AusALPA advocates that the Danish system (Appendix 1) of a single mandatory, non-punitive, and yet strictly confidential reporting scheme, is the example of "world's best practise" that should serve as a starting point for this review.

For more information, please refer to the discussion paper attached which places AusALPA's submission in context and also examines the best way for Australia to improve occurrence reporting schemes and practises.

Should you wish to discuss this further, please do not hesitate to contact our office at safety.technical@aipa.org.au or on 02 8307 7777.

Yours sincerely,



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Appendix 1

Denmark

In 2001, Denmark revolutionised its occurrence reporting system introducing "landmark legislation and by far one of the best in the world in terms of creating a 'just culture'" (EUROCONTROL Performance Review Commission, 2006, p. 57).

Under regulation BL8-10 (Civil Aviation Administration - Denmark, 2009), Denmark introduced a single mandatory, non-punitive, and yet strictly confidential occurrence reporting system. Individuals are required to report a prescribed list of occurrences and encouraged to report other safety events through, where applicable, their employer who is required to forward the report and any investigation to the regulator.

A failure to report is punishable by fines while reporters receive immunity from punishment for the reported occurrence (with exceptions for sabotage and negligence due substance abuse), provided that they have been full and open about the occurrence. Details of individual reports remain confidential, with individuals breaching confidentiality exposed to criminal offences. However, the data storage arrangement retains personal details for five years, allowing follow up investigations and verification by the regulator. In return for exemption from freedom of information (FOI) requirements, the Danish regulatory authority is required to publish six monthly statistical summaries based on the de-identified data from occurrence reports.

The result of this legislation has been a stunning turnaround in Denmark's reporting culture, albeit from a poor base. As previously noted; reporting rates increased more than ten-fold (EUROCONTROL Performance Review Commission, 2006, p. 57), with reporting of loss of separation incidents, which was mandatory both before and after the change, tripling (Norbjerg, 2003, p. 157). In its survey on ATCO reporting cultures the EUROCONTROL Performance Review Commission identified that Denmark:

> Had one of the best reporting cultures in the world;
> Demonstrated strong political support from employees and management;
> Strong peer support coupled with a rejection of antisocial behaviours; while
> Incidents are treated as worthwhile learning opportunities. (EUROCONTROL Performance Review Commission, 2006, p. 58)

Denmark maintains a single occurrence reporting system, which while mandatory, provides confidentiality and immunity from prosecution. Key features of the scheme include:

> A prescribed list defines the reportable occurrences.
> Individuals are required to report occurrences to their organisation's reporting scheme that must conform to the national regulations. The organisation is then responsible for forwarding the report, along with a statement regarding the investigation, to the regulator.
> Failure to report is punishable by fines.
> Persons who fulfil their reporting obligations receive immunity for regulatory violations.
> The database's structure prevents personal details being searchable and it is an offence to reveal reported information.
> The regulator is required to issue an annual report based on reported occurrences. (Civil Aviation Administration - Denmark, 2009)

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APPENDIX 2

AusALPA discussion paper

Enhanced Aviation Mandatory and Confidential Reporting

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AusALPA Discussion Paper

Enhanced Aviation Mandatory and Confidential Reporting

Reference Number: S05-0009

July 2012

Contents

Introduction

Incidents are defined by ICAO as “an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation” (ICAO, 2010a, pp. 1-2). While some incidents are serious, in that they “differ from accidents only in the result” (ICAO, 2010a, pp. 1-2) and should receive the same investigative attention as accidents; the vast majority of incidents are minor events which provide weak signals of safety issues. The strength and challenge in gathering safety data from minor events lies in their frequency, which potentially enables hazards and trends to be identified but prohibits in depth investigation of individual events. Macrae, Pidgeon and O’Leary (2002, p. 99) define three fundamental elements in maximising the benefit of incident reporting: appropriate accident causation models, rapid learning of suitable lessons and assessment of the risk implied by incidents in relation to safe levels of operation.

The Role of Incident Reporting

Incident reports have multiple purposes in the safety system, depending on the safety paradigm employed, including the following:

Identifying Defective Elements in the System. This is the traditional use for incident reports, based on safety thinking that explains accidents as the consequence of the linear propagation of a chain of cause and effect (Hollnagel, 2006, p. 10). Investigations focus on ‘What happened?’, ‘When did it happen?’ and ‘Who did it?’ (Ayeko, 2002, p. 116; ICAO, 2009, pp. 2-2,3). While accident causation theories have advanced from simple cause-effect models, the continuing importance and relevance of this safety paradigm should not be underestimated. Most incidents, especially technical ones, are relatively minor single failure events and cause-effect models offer satisfactory explanations (Dekker, 2006, p. 84). Most regulatory systems maintain a focus on regulatory compliance and cause-effect models align with most judicial and societal approaches to accidents, i.e. to determine the fault and liability of a party and apportion blame (Michaelides-Mateou & Mateou, 2010, p. 100). However, safety managers may misconceive a direct relationship between eliminating a “cause” and eliminating an “effect” (Reiman & Rollenhagen, 2011, p. 1270), leading to a tendency to address symptomatic solutions rather than underlying structural problems (Leveson & Marais, 2003, pp. 8-9).

Identifying Underlying Latent Conditions. In the barrier models of accident causation, exemplified by Reason’s “Swiss Cheese” model, incidents assist in identifying latent conditions, open to remedial action prior to an accident occurring (Macrae et al., 2002, p. 100). Analysing incidents using a barrier approach can provide objective insight into human error (Wassoon, 2003, p. 75) and encouragement to look beyond immediate system failures to consider the latent conditions (Dekker, 2006, pp. 87-90; Johnson & Holloway, 2003). However, this approach is susceptible to hindsight bias and has tended to focus blame higher up in an organization at the expense of a thorough examination of active failures (Braithwaite, 2002). The model is also limited in its ability to explain why latent conditions exist or describe the interactions between the various failures and conditions identified (Dekker, 2006, pp. 87-90), leading to problems when developing countermeasures to identified latent conditions (Kirwan, 2011, p. 15; Wassoon, 2003, p. 75).

Identifying Strengths and Weaknesses within the System. Within systemic accident causation models, incidents are seen as not being directly related to accidents, rather they provide both a countering force to the competitive pressures within the system and an opportunity to understand how the system

> adapted to cope with unexpected events (Amalberti, 2001; Woods & Cooke, 2006). Both successes and failures are a by-product of people and organizations balancing competitive pressures and resource constraints with imperfect knowledge (Dekker, 2006, p. 81; Hollnagel, 2006, p. 13). Preventing accidents with a systemic view revolves around constraining unwanted performance variability within acceptable margins and improving the system's ability to cope with work on a daily basis (Amalberti, 2001; Reiman & Rollenhagen, 2011, p. 1271).

Safety Management Systems (SMSs)

ICAO, regulators, operators and air traffic management (ATM) organisations are placing increased emphasis on risk management through integrated SMSs in order to deal proactively and even predictively with emerging threats in an expanding and evolving aviation system. SMSs aim to assure safe operations via an integrated, data driven, risk based approach rather than the traditional compliance based regulatory regime. Within an SMS, incident reporting schemes provide data alongside automatic monitoring systems such as flight data analysis (FDA), surveys and operational audits. Reason (1990, pp. 209-210) and O'Leary (2003, p. 165) highlight the benefits and necessity of complementary multichannel feedback systems due to the strengths and weaknesses in individual channels. For instance, while FDA is an excellent source for identifying the frequency of certain events, FDA cannot capture numerous events and provides little information on context and human behaviours. Effective incident reporting schemes capture events that would otherwise remain unobserved and can provide both contextual and human behaviour information. To be successful, risk management requires large incident databases and "assurance that data for risk assessments are complete, meaningful, and available to decision makers" (United States Government Accountability Office [U.S. GAO], 2011, p. 37).

SMS Integration Challenges

For incident reporting systems to provide creditable risk metrics, the reporting must be as complete as is reasonably possible (EUROCONTROL Performance Review Commission, 2006, p. 2; U.S. GAO, 2010). Incomplete reporting creates difficulties in identifying trends, comparing levels of safety and creates the dangerous potential for the overestimation of the level of safety within a system. When using occurrence data from multiple sources to assess risks it is vital that multiple records of the same occurrence from, for example, FDA, separate mandatory / voluntary / confidential schemes are combined to provide a complete explanation and so as not to skew statistics. Failure to do so may well invalidate the risk assessments at the heart of SMS.

Ideally, as part of an SMS, reporting schemes should operate at a local level, enabling "a prompt response from those individuals who are best placed to understand the context" (Johnson & Holloway, 2003, p. 271). Centralized incident report repositories should support local processing, facilitate information sharing, provide an avenue to elevate issues to higher authorities and enable analysis over a larger sample size.

The protection provisions that enable the collection of sensitive information compromise its use for safety management and can prevent investigators from clarifying ambiguities (M. Tamuz, 2001, p. 296). The U.S. GAO (2011, p. 35) found that 35% of reports in a confidential air traffic control reporting program were identified by the FAA using other sources. The FAA's SMS is unable to combine the data to create a more complete picture. However, without the confidential program, there would have been no reports of the remaining 65% of incidents.

Mandatory vs. Voluntary Reporting Schemes

Both mandatory and voluntary occurrence reporting schemes are imperfect, particularly when attempting to integrate the data into SMSs.

Mandatory Occurrence Reporting (MOR) Schemes

Typically, MOR schemes require responsible individuals to submit a report to the state's central repository, usually via an operator's safety department who may conduct any investigation into the incident. MOR schemes tend to capture a wealth of primarily factual detail on events ("who", "what" and "where"). However, only limited information on why the incident occurred is gathered via a short unstructured narrative that seldom contains information on context or the prevention mechanisms that contained the situation, particularly where individuals under-performed (O'Leary, 2003, p. 167; Wiegmann & von Thaden, 2003, p. 154).

MOR schemes need to define 'reportable' events, either employing a definition with guidance list or specifically prescribing the reportable events. Such lists certainly help individuals recognise a reportable event and simplify scheme management (Graham, Kinnersly, & Joyce, 2002, p. 74). However, the lists vary between individual companies and countries, biasing the data collected. Additionally, overly rigid assumptions regarding safety can lead to the exclusion of novel incidents, creating the potential for emerging hazards to go unrecognized (Macrae et al., 2002, pp. 104-105).

Voluntary Reporting Schemes

Voluntary non-punitive incident reporting schemes aim to provide reporters with protection from disciplinary and administrative action (ICAO, 2009, pp. 9-6), enabling open disclosure of human and organisational issues. Voluntary schemes can either provide incentives for voluntary reporting by offering immunity or ensure confidentiality by de-identifying reports.

Centralised state-based voluntary reporting schemes, such as REPCON, are easier to establish at a national level, separated from normal compliance actions and inaccessible to employers. However, they are remote from the bodies responsible for implementing corrective measures, reducing their relevance to safety management (M. Tamuz, 2001, pp. 295-297). Company based voluntary reporting schemes, for example the Aviation Safety Action Plans (ASAP) operating in the USA, enable the information to be included as data in organisational and national SMSs. However, they require formal and informal agreements spanning employees, management and the regulator: covering the type of information sought, the degree of confidentiality and reporter immunity, information access controls and what action will occur to correct deficiencies (Federal Aviation Administration [FAA], 2002; Pidgeon & O'Leary, 2000, pp. 24-25).

Confidential reporting schemes, particularly the USA's Aviation Safety Reporting System (US ASRS) which has collected over 880,000 reports (Aviation Safety Reporting Scheme [ASRS], 2011), can be a significant resource for in depth analysis of specific issues (Hobbs & Kanki, 2008; O'Leary, 2003). "Most reporters [to ASRS] are frank to admit to their own mistakes, and will go into detail in describing the circumstances, character, and outcome of the incident" (Reynard, 1995, p. 7). However, voluntary and confidential systems do not provide a random cross-section of incidents, as only motivated reporters submit reports (ASRS, 2001, p. 7; Hobbs & Kanki, 2008, p. 7).

Influences on Reporting Rates

For individuals to report an incident involves several steps: initially they have to recognise that a reportable event has occurred, secondly they have to report it and finally they have to determine what information they will disclose in the report (Graham et al., 2002, p. 73).

Effect of Fear of Sanctions

If reporters fear they will be treated as the accused, rather than as an eyewitness, it is likely that their evidence may be less than fully frank, if it is provided at all (Dekker, 2011, p. 123; Michaelides-Mateou & Mateou, 2010, p. 153; Orlady & Orlady, 1999, p. 397; U.S. GAO, 2010, p. 21). Several studies, demonstrate the significance of fears of adverse consequences in determining the level of reporting by aviation personnel:

> Tamuz (1987; 2001) examined the rate of reporting of near mid-air collisions (NMACs) by U.S. pilots into a FAA mandatory reporting scheme where pilots faced potential prosecution for regulatory breaches. Between 1968 and 1971, the FAA granted immunity for reported NMACS, resulting in reporting rates tripling only to decline six-fold when the immunity lapsed in 1972. Subsequently, the installation of monitoring equipment within air traffic control (ATC) resulted in a five-fold increase in pilot NMAC reports submitted to ASRS, which provided a degree of immunity from FAA action.
>
> Madsen (2002) compared reporting cultures amongst Danish and Swedish air traffic controllers (ATCOs) in the late 1990s. While both ATC systems had similar characteristics (training, safety record, capacity and national culture), Danish ATCOs had a significantly lower reporting rate. Madsen concluded that the definition and clarity of what actions would be subject to sanction was the major influence. In Denmark, simple negligence was punishable while in Sweden the test was gross negligence. In 2001, Denmark established a mandatory, non-punitive and yet strictly confidential reporting system (see Appendix 1). Reporters received immunity but were liable for fines if they failed to report. Reporting rates increased more than ten-fold (EUROCONTROL Performance Review Commission, 2006, p. 57), with reporting of loss of separation incidents, which was mandatory both before and after the change, tripling (Norbjerg, 2003, p. 157).
>
> The EUROCONTROL Performance Review Commission (2006) conducted a survey of ATCO representatives to examine the legal and regulatory provisions likely to impede safety reporting. Key insights into ATCO reporting culture from the study included the following:
>
> > There is a low chance of open safety reporting if ATCOs perceive that the information may end up in judicial processes.
> >
> > Non-punitive corrective mechanisms; such as suspensions, re-training and increased supervision; were often perceived as punitive by the recipients
> >
> > Some states maintained a good reporting culture without legal protections as ATCOs trusted aviation authorities and the judiciary to intervene only in appropriate cases.
> >
> > National culture, particularly with regard to media sensationalism and the public's desire to punish culprits, can be a significant deterrent to full reporting.
>
> ***Protection Fragility.*** Where reporter protections lack robustness the potential exists for the trust required for effective reporting, with adverse results. The following examples indicate the problem:

US ASAP Suspensions. Between 2006 and 2008 four large carriers and their pilot unions suspended their ASAP following concerns regarding letters of reprimand resulting from ASAP reports and court rulings calling for the release of ASAP reports by Comair following a 2006 accident (US GAO, 2010, p. 21).

The Netherlands Experience. The Netherlands historically had an excellent reporting culture supported by an open, non-punitive safety reporting policy. However, following the prosecution and conviction of ATCOs involved in the so-called “Delta case”, reporting levels reduced markedly, impairing safety management processes. “The judicial authorities in the Netherlands are particularly adamant on prosecution of all safety occurrences where gross negligence and wilful misconduct may have played a role. While this is perfectly acceptable, every single incident tends to be labelled as “gross negligence” by the judicial authorities” (EUROCONTROL Performance Review Commission, 2006, p. 79).

Reporting Culture

Influences on an individual’s decisions to report extend beyond their exposure to sanction or the possibility of sanctuary. Both Norbjerg (2003) and Madsen (2002) describing Denmark’s experience, stress the importance of company commitment, accessible reporting methods, the professional handling of investigations and useful feedback mechanisms in developing a professional code of ethics regarding reporting. Some companies have increased reporting rates even though they are not in a position to guarantee immunity.

Effects of Safety Management Programs. During the 1990s BA developed the British Airway’s Safety Information System (BASIS), consisting of a FDA program, a MOR scheme and a confidential human factors reporting scheme. Incident reporting increased five-fold between 1991 and 2001 while both the proportion and absolute number of events considered to be high risk declined (O'Leary, Macrae, & Pidgeon, 2002, pp. 90-91). O’Leary (2003, p. 166) attributes BASIS’ success to the versatility of the program and the organisational support from employees and management. Trials of a similar, albeit simpler, proactive safety management program in an Australian regional airline demonstrated significant increases in the willingness of staff to report incidents (Edkins, 1998).

Studies from Outside Aviation. Several studies from other industries have addressed reporting culture. Clarke (1998) found that perceptions of local managers' attitudes towards incident reporting strongly influenced British train drivers willingness to report safety incidents. Van der Schaaf and Kanse (2002) identified that employee perceptions that the reporting system did not apply and that there were no consequences or learning opportunities from their errors were the principal reasons why chemical industry employees failed to report self-made errors. In the Norwegian merchant shipping industry Oltedal and McArthur (2011) found high competence levels, strong interpersonal relationships, management commitment, pro-active work practises and feedback correlated to a higher level of reporting. Jones, Kirchsteiger and Bjerke (1999) identified that management focus on near miss reporting generated incident reports within Norsk Hydro. Interestingly, Norsk Hydro found “an inverse proportionality between the number of reported near misses and the number of accidents” (p. 63). This result is similar to that observed in BASIS where the number of high-risk events declined as reporting increased.

ICAO Requirements and Developments

ICAO SARPs

Chapter 8 of ICAO Annex 13 contains the current standard on reporting systems; requiring states to maintain a mandatory incident reporting system as well as voluntary, non-punitive reporting system that protects the source of safety information (ICAO, 2010a, pp. 8-1).

Additionally, Attachment E to Annex 13 provides guidance on recommended practises for protecting information from safety data collection and processing systems (SDCPS). SDCPSs include both mandatory and voluntary reporting systems as well as self-disclosure reporting systems, automatic data capture systems such as FDA and manual data capture systems such as Line Operated Safety Audits (LOSA). States are encouraged to adapt their laws and policies to facilitate safety data collection to prevent 'inappropriate use' of safety information. "Inappropriate use refers to the use of safety information for purposes different from the purposes for which it was collected, namely, use of the information for disciplinary, civil, administrative and criminal proceedings against operational personnel, and/or disclosure of the information to the public" (ICAO, 2010a, pp. ATT E-1). Exceptions from protection provisions should only occur where:

> "conduct with intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct" occurs; or
>
> release of the information is "necessary for the proper administration of justice, and that its release outweighs the adverse domestic and international impact such release may have on the future availability of safety information" (ICAO, 2010a, pp. ATT E-2,3).

Recent ICAO Developments

In 2010, the ICAO High Level Safety Conference concluded, "the protection of information from all available sources of safety data from improper use is essential to ensure its continued availability" (ICAO, 2010b, pp. 3-7). The conference recommended the development of a new Safety Management Annex (No. 19) and the formation of a multi-disciplinary Safety Information Protection Task Force (SIPTF) to develop policies to protect, among other things, incident records and interactions between safety and judicial authorities. The initial version of Annex 19, expected to come into force in 2013 is essentially a collation of safety management provisions from existing annexes, with few new initiatives. However, the ICAO Safety Management Panel (SMP) aims to develop new policies for Annex 19, alongside the work of the SIPTF. The SIPTF is aiming to identify means of encouraging law enforcement, judicial and administrative authorities to consider the protection of safety information principles while the SMP, has identified deficiencies in the current Attachment E of Annex 13 when it applied to safety management and that:

> *"The protections on safety data are necessary but they should emphasize the protection of the identity of the primary source, especially on voluntary or sole-source reports. The mandatory reports should bring clear information about the objectives and possibilities of use under a safety management approach, clearly defining the boundaries between an acceptable and unacceptable behaviour." (ICAO, 2012, p. 5)*

International Occurrence Reporting Systems and Experiences

Internationally there is a wide variety of occurrence reporting regimes. Given differences in national laws, culture and historical practise, such differences are not surprising. However, reviewing the strengths and weaknesses in some regimes it is possible to identify some key

components needed for integrating occurrence reporting into SMS and determine best practise. Table 1 compares and summarises the reporting regimes in the US, UK, New Zealand, Denmark and Australia; with more detail provided at Appendix 1.

Table 1. Examples of Reporting Regimes in Various Countries.

(N.B. Appendix 1 provides expanded descriptions and source citations. “Prescribed” indicates a scheme specifically lists reportable occurrences while “guidance” indicates the scheme defines an “incident” with relevant examples. The “No. of Reportable Occurrences” is the number of event categories that the MOR scheme either prescribes or provides as guidance.)

	Mandatory Occurrence Reporting Scheme			Voluntary Occurrence Reporting Scheme		
Country	**Prescribed / Guidance**	**No. of Reportable Occurrences**	**Reporter Protections**	**Company / State Processing**	**Separate from MOR**	**Immunity Incentives**
New Zealand	Guidance	137	Not used for prosecutions unless an action or omission caused unnecessary danger.	State	No	No.
United Kingdom (UK)	Guidance	194	Report accessible when authorities aware of the event by other means. Regulator committed not to use reports for punitive action.	State	Yes	No
United States (USA)	Prescribed	13	None unless successfully reported to separate voluntary schemes (ASAP / US ASRS) providing limited administrative protection.	US ASRS - State / ASAP - Company	Yes	Yes - Limited protection from administrative actions.
Denmark	Prescribed	105	Immunity / confidentiality enshrined in law.	Company	No	Yes –immunity / confidentiality enshrined in law.
Australia	Prescribed	71	None unless successfully reported to the Aviation Self Reporting Scheme (AUS ASRS) providing limited administrative protection.	State	Yes	No - Unless successfully reported to the AUS ASRS providing limited administrative protection.

United Kingdom (UK) and New Zealand (NZ)

Both the UK and NZ reporting regimes aim to funnel occurrence reports into a single state repository by providing a level of protection to reporters. Both systems encourage investigation at a local level with the reports / safety actions forwarded to the central repository. In NZ, reporters can elect to submit confidentially via a separate, confidential portal into the main scheme, while in the UK the independent Confidential Human Factors Reporting Scheme (CHIRP) is one avenue for frontline personnel to pass on their experiences.

From a SMS perspective, by encouraging processing within organisational-based SMSs and then combining the data in a central repository demonstrate a solid process. However, both systems have weaknesses, primarily the following:

> **Guarantees of Protection.** In NZ, Rule 12.63 prevents report use for prosecution action unless "the information reveals an act or omission that caused unnecessary danger to any other person or to any property" (Civil Aviation Authority of New Zealand, 2010, p. 13). This standard is equivalent to less than simple negligence, as no damage is required, essentially equating to human error. The UK has a similar guarantee with a serious "out" clauses. The UK regulations prevent the use of reports for enforcement proceedings except in cases of gross negligence, but only when the report is the sole means by which the authorities became aware of the incident (United Kingdom, 2009, Pt 30, 226 (17)). The sole means provision makes the guarantee very susceptible to political / public pressure if an event becomes public knowledge. Should such an event occur then, like in the Netherlands, it is likely to cause severe damage to the reporting culture. When personnel compose reports they will probably be unaware whether the authorities will learn about the occurrence by other means
>
> **Voluntary Confidential Portals.** The need for confidential portals (or CHIRP in the UK) demonstrates that critical information on human performance is bypassing local SMS processes. While such portals are in accordance with the ICAO standard, any reports submitted bypass local SMSs and demonstrate weaknesses in reporting culture and / or the protections provided by the main occurrence reporting scheme. A recent survey in one UK airline asked whether CHIRP was still necessary in the presence of SMS, "just culture" and a company confidential reporting portal. The overwhelming response was that it was (CHIRP, 2011, p. 1).

The United States (US)

Compared with most other states, the US is more reliant on voluntary reporting which provides limited protection from administrative action. While mandatory reporting requirements are limited to essentially serious occurrences the US's ASRS confidential scheme has been very successful in amassing reports and the adoption of company based ASAPs has definitely improved the flow of critical feedback on human performance into local SMSs and the FAA's databases. However, as pointed out in two recent reports by the US GAO (2010, 2011) there are serious weaknesses in the system when it comes to using this data for a risk based approach to safety. Primarily the concerns relate to the validity of the data and the ability to integrate the data with other safety metrics. The GAO, while recognising the benefits of the voluntary reporting programs, has noted significant limitations, including the following:

> It is impossible to know how many events, and of what types, are not reported, so determining if the database represents a random cross section is impossible to determine.
>
> Not every airline participates.
>
> It is impossible to verify confidential voluntarily reported data.
>
> The fragility of the system demonstrated by the withdrawal of several major carriers between 2006 and 2008. (US GAO, 2010, pp. 19-21)

While the US ASRS is often cited as an excellent reporting system, in some ways it has limited use for risk based safety management. In many respects it has become “a bloated and costly reporting system with not necessarily better predictability, but where everything can be found; … chronically diverted from its true calling (safety) to serve literary or technical causes” (Amalberti, 2001, p. 113).

Denmark

In 2001, Denmark revolutionised its occurrence reporting system introducing “landmark legislation and by far one of the best in the world in terms of creating a ‘just culture’ ” (EUROCONTROL Performance Review Commission, 2006, p. 57). Under regulation BL8-10 (Civil Aviation Administration - Denmark, 2009), Denmark introduced a single mandatory, non-punitive, and yet strictly confidential occurrence reporting system. Individuals are required to report a prescribed list of occurrences and encouraged to report other safety events through, where applicable, their employer who is required to forward the report and any investigation to the regulator. A failure to report is punishable by fines while reporters receive immunity from punishment for the reported occurrence (with exceptions for sabotage and negligence due substance abuse), provided that they have been full and open about the occurrence. Details of individual reports remain confidential, with individuals breaching confidentiality exposed to criminal offences. However, the data storage arrangement retains personal details for five years, allowing follow up investigations and verification by the regulator. In return for exemption from freedom of information (FOI) requirements, the Danish regulatory authority is required to publish six monthly statistical summaries based on the de-identified data from occurrence reports.

The result of this legislation has been a stunning turnaround in Denmark’s reporting culture, albeit from a poor base. As previously noted; reporting rates increased more than ten-fold (EUROCONTROL Performance Review Commission, 2006, p. 57), with reporting of loss of separation incidents, which was mandatory both before and after the change, tripling (Norbjerg, 2003, p. 157). In its survey on ATCO reporting cultures the EUROCONTROL Performance Review Commission identified that Denmark:

> had one of the best reporting cultures in the world,
>
> demonstrated strong political support from employees and management,
>
> strong peer support coupled with a rejection of antisocial behaviours, while
>
> incidents are treated as worthwhile learning opportunities. (EUROCONTROL Performance Review Commission, 2006, p. 58)

The Australian Reporting System

Australia maintains three separate occurrence reporting schemes:

1. **Aviation Accident or Incident Notification Scheme.** This is a mandatory scheme that explicitly prescribes a list of immediately and routinely reportable events. There are no provisions preventing use of the reports against the reporter in either the Transport Safety Investigation Act 2003 (Commonwealth of Australia, 2003) or the Transport Safety Investigation Regulations (Australian Government, 2003, Part 2).

2. **REPCON.** A voluntary confidential reporting scheme direct from individuals to the ATSB. Reports require acceptance by the ATSB before admission into the scheme in order to ensure that it is the appropriate reporting method. Personal information can only be retained in the REPCON database in specific circumstances (Australian Government, 2006).

3. **Aviation Self Reporting Scheme (AUS ASRS).** A voluntary scheme for reporting inadvertent breaches of specific aviation regulations that grant the reporter limited immunity from administrative action by the regulator (Australian Government, 1998, Division 13.K.1).

While the protections provided to REPCON and AUS ASRS comply with the ICAO standard, the mandatory scheme does not meet the recommended practise preventing the “use of the information for disciplinary, civil, administrative and criminal proceedings against operational personnel, and/or disclosure of the information to the public” (ICAO, 2010a, pp. ATT E-1).

The ‘strict liability’ nature of the majority of Australia’s aviation regulations means that even if you had no intention of breaching a regulation, in a mandatory occurrence report you are effectively providing self-incriminating evidence. Compounding this is the Civil Aviation Safety Authorities (CASA) guidance on maintaining a “just culture” in organisations which states that sanctions should be “applied when there is evidence of … negligent behaviour” (Civil Aviation Safety Authority, 2009a, p. 6). Negligence applies when ‘damage’ results from a breach of duty of care (Barstch, 2010, para 6.35) and in the absence of damage “is no different than human error in the everyday world” (Marx, 2009, p. 114). Reporters to Australia’s mandatory reporting scheme are relying on trust that the information is not used against them so it should be unsurprising if they are less than fully frank if their performance could be questioned.

From a safety management perspective, REPCON and AUS ASRS, cannot be incorporated into local SMSs. Additionally, incorporating other risk metrics such as FDA with mandatory reports is difficult as they have differing protection standards. While under CAO 82.5 FDA programs must protect the identity of individuals and ensure no punitive action is taken against them (Australian Governement, 2012, subparagraph 2A.3) no protection is provided to a reporter who files an incident report on an event. If you believe that FDA will record an event, there is almost a disincentive to file an incident report. There is evidence of under-reporting within the Australian aviation industry. For, example, “at least 40 per cent of wirestrike occurrences in Australia between July 2003 and June 2011 had not been reported to the ATSB” (ATSB, 2012a, p. vii). If such under-reporting is widespread, the validity of occurrence reporting data used for risk management and any conclusions reached from risk assessments is unreliable and potentially misleading.

Conclusion

Safety incident reporting by frontline staff provides insights into events and pressures that are invaluable in effective risk management processes. At the local level, effective safety management requires the removal of barriers preventing full and frank disclosure by individuals. The quarantining of some human performance data in separate databases, while useful for directed research, can compromise local risk management endeavours.

With the adoption of SMS as the preferred means of assuring safety within aviation, the safety paradigm has moved towards a systemic view. However, historic regulatory and cultural practises regarding human performance still lead to a belief that human performance variability must be addressed, through either punitive or non-punitive measures directed at the individual. Without robust guarantees that reporters will not be self-incriminating themselves there is likely to be both under-reporting and a tendency for reporters to be less than 'full and frank', undermining and even invalidating the use of occurrence reports in safety management.

Organisationally based non-punitive reporting programmes, by exempting reporters from extant company and national rules, are one means of improving the supply of incident reports to an SMS. Changing national laws to impose obligations on reporters while granting those that do report real protection, as has occurred in Denmark, is likely to be more endurable and effective. Both approaches require that the industry demonstrate to politicians and the community at large that the protections are justified and being used responsibly. State based voluntary reporting schemes such as REPCON, where reporters bypass an organisation's SMS are necessary without legislative and cultural change; however, they are not in the best interest of safety management.

It is time for Australia to review its entire reporting system. Current schemes are not in accordance with ICAO's recommended practises, which have been determined to be inadequate for effective safety management. With the adoption of SMSs by industry, the protection provided to reporters requires strengthening in order to allow the SMS risk process to be fully informed. Regulations require amendment to clearly state what mandatory occurrence reports can be used for. If used for punitive and even non-punitive measures by the regulator, Australia's reporting culture and safety management will suffer.

The Danish model of a single mandatory, non-punitive, and yet strictly confidential occurrence reporting system is the best in the world and aligned with the requirements of risk based safety management. The 2010 ICAO High Level Safety Conference declaration "calls upon States to examine their existing legislation and adjust, as necessary, or enact laws and regulations to protect safety information and its sources where the purpose is to improve safety" (ICAO, 2010b, pp. 2-2). If Australia is serious about improving the safety of aviation by adopting risk based safety management it should amend its laws and adopt the Danish model.

(Significant sections of this discussion paper were adapted from an unpublished literary review on "Incident Reporting Biases: Implications for Safety Management and the Sharing of Safety Information" by Ian Whyte (BSc, MScTech (Aviation)) as part of a Masters Degree course at the University of NSW. Copies of the paper are available on request from safety.technical@aipa.org.au)

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Appendix 1. Examples of Incident Reporting Schemes in Selected Countries

As required by Chapter 8 of ICAO Annex 13 (2010a), most countries have developed some means for frontline operational personnel to report safety incidents. However, the schemes adopted in individual countries vary considerably. The countries and scheme descriptions below are not exhaustive; rather the aim is to indicate the variety of schemes in different jurisdictions.

New Zealand

New Zealand maintains a mandatory reporting scheme, administered by the regulator. Significant features of the scheme include the following:

> The pilot-in-command is responsible for notification, while operators must forward the results of internal investigation to the regulator.
>
> A formal definition of an incident determines reporting requirements, supported by a list of examples.
>
> Limited protection to reporters:
>
> "The Authority shall not use or make available for the purpose of prosecution investigation or for prosecution action any information submitted to it by a person … unless –
>
> > (1) the information reveals an act or omission that caused unnecessary danger to any other person or to any property; or
> >
> > (2) false information is submitted; or
> >
> > (3) the Authority is obliged to release the information pursuant to a statutory requirement or by order of a Court." (Civil Aviation Authority of New Zealand, 2010, rule 12.63)
>
> Reporters have the option to submit reports confidentially, by sending the reports directly to a separate portal at the regulator. (Civil Aviation Authority of New Zealand, 2000, 2007, 2010)

United Kingdom (UK)

The UK regulator maintains a mandatory reporting scheme with the following principle features:

> Individuals are responsible for reporting, with encouragement for operators to conduct the processing and investigation of reports.
>
> A formal definition of an incident determines reporting requirements, supported by a list of examples.
>
> The database does not contain personal information; however, judicial authorities can access information.
>
> A mandatory report cannot be the sole basis for any proceedings instituted in respect of inadvertent infringements.
>
> Reporters have the option to submit reports confidentially, by sending the reports directly to the regulator, annotated as "confidential". (UK Civil Aviation Authority, 2011; United Kingdom, 2009, Part 30)

An independent charitable trust maintains a confidential human factors reporting scheme (CHIRP). After initial processing, CHIRP holds no personal identifying details (The CHIRP Charitable Trust).

United States (U.S.)

The U.S. maintains multiple mandatory and voluntary reporting schemes. The principle schemes relevant to individual reporters include the following:

1. **Aircraft Accident and Incident Reporting Scheme.** This is a mandatory program for the reporting of accidents and specified serious incidents directly to the National Transportation Safety Board (U.S. Government, Part 830).
2. **Near Midair Collision (NMAC) Reporting.** Pilots are required to report NMACs directly to the FAA. When the subsequent investigation reveals a regulatory violation, “enforcement action will be pursued” (FAA, 2010, sect. 7-6-3) .
3. **Aviation Safety Reporting System (ASRS).** ASRS is a voluntary reporting scheme administered by the National Aeronautics and Space Administration (NASA). Individuals submit reports directly to ASRS, and receive a receipt from NASA via a tear-off section of the report that contains all personal details. In return for the timely submission of a report, the FAA waives civil penalties and license suspension actions for associated inadvertent regulatory breaches (FAA, 1997).
4. **Aviation Safety Action Program (ASAP).** ASAP is a voluntary reporting scheme involving a partnership between the FAA, airlines and employees. An event review committee (ERC) reviews reports prior to their acceptance into ASAP. Once accepted, the ERC determines any corrective actions, which when fulfilled, allow the FAA to use a minimal approach to enforcement. The content of an ASAP report is not used to initiate and support FAA or company disciplinary action (FAA, 2002). Not all airlines participate in ASAP and several programs have experienced periods of suspension due to concerns with confidentiality and fears of reprisals (U.S. GAO, 2010, p. 21).

Denmark

Denmark maintains a single occurrence reporting system, which while mandatory, provides confidentiality and immunity from prosecution. Key features of the scheme include:

A prescribed list defines the reportable occurrences.

Individuals are required to report occurrences to their organisation’s reporting scheme that must conform to the national regulations. The organisation is then responsible for forwarding the report, along with a statement regarding the investigation, to the regulator.

Failure to report is punishable by fines.

Persons who fulfil their reporting obligations receive immunity for regulatory violations.

The database’s structure prevents personal details being searchable and it is an offence to reveal reported information.

The regulator is required to issue an annual report based on reported occurrences. (Civil Aviation Administration - Denmark, 2009)

Australia

Australia maintains three reporting schemes, administered by the Australian Transport Safety Bureau (ATSB):

1. **Aviation Accident or Incident Notification Scheme.** This is a mandatory scheme that explicitly prescribes a list of immediately and routinely reportable events. There are no provisions preventing use of the reports against the reporter (Australian Government, 2003, Part 2).
2. **REPCON.** A voluntary confidential reporting scheme direct from individuals to the ATSB. Reports require acceptance by the ATSB before admission into the scheme in order to ensure that it is the appropriate reporting method. Personal information can only be retained in the REPCON database in specific circumstances (Australian Government, 2006).
3. **Aviation Self Reporting Scheme.** A voluntary scheme for reporting inadvertent breaches of specific aviation regulations that grant the reporter

limited immunity from administrative action by the regulator (Australian Government, 1998, Division 13.K.1).

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Attachment 2 to
AIPA Submission to the Aviation Safety Regulation Review 31 Jan 14

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Advancing the interests of our members and the profession

AUSTRALIAN SENATE

Rural Affairs and Transport References Committee

A Compendium of Recommendations made to the Inquiry by the Australian and International Pilots Association

Pilot training and airline safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010

29 April 2011

WHO IS AIPA/AUSALPA?

AIPA Affiliations

The Australian and International Pilots Association (AIPA) is a member organisation of the umbrella pilot representative body for Australia, AusALPA, and a member association of the International Federation of Airline Pilots' Associations (IFALPA). In the global context, IFALPA represents in excess of 100,000 pilots through over 100 aircrew organisations. IFALPA is recognised as a permanent observer to the ICAO Air Navigation Commission and, as such, participates fully in the technical deliberations of the Commission and ancillary Panels and Study Groups.

AIPA is also a partner of the OneWorld Cockpit Crew Coalition whose principal objective is to provide a co-operative forum for its member organisations to address matters of common interest affecting pilots within the airline companies who comprise the oneworld Alliance (currently Qantas, Aer Lingus, American Airlines, British Airways, Lan Chile, Iberia, Cathay Pacific, Finnair, Japan Airlines, Malev Hungarian Airlines and Mexicana) and their major codeshare partners.

AIPA's Role

AIPA seeks to advance the employment interests of its members and, to that end, represents individuals and the membership at large both in the workplace and in the broader aviation industry. In addition to being the social welfare voice of our membership, AIPA has a broader interest in the welfare of all Australian pilots and, through our work with IFALPA, the interests of pilots worldwide.

AIPA also provides passionate advocacy on safety and technical issues, both locally and internationally. AIPA regularly participates in regulatory, technical and government inquiries and forums, and is recognised by various government and quasi-government bodies as having a stakeholder interest in the Australian aviation industry.

There are many issues that arise in aviation that are often resolved without input from representative bodies such as AIPA. Some are matters that are not appropriate for representative body involvement and AIPA recognises and respects that circumstance. However, there are many other matters where the views and inputs of organisations such as AIPA, which are free of vested financial interests and not aligned with any commercial entities or business coalitions, can provide broad nonpartisan advice and add significant value to both the process and the outcomes.

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THE COMBINED RECOMMENDATIONS MADE BY AIPA
TO THE AUSTRALIAN SENATE RURAL AFFAIRS AND TRANSPORT REFERENCES COMMITTEE INQUIRY ON PILOT TRAINING AND AIRLINE SAFETY

References:

A. AIPA "Statement of Concern on Diminishing Flight Standards" October 2010

B. AIPA "Submission and Response to the Terms of Reference" to the Australian Senate Rural Affairs and Transport References Committee Inquiry on Pilot Training and Airline Safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010, 28 October 2010

C. AIPA "Supplementary Submission" to the Australian Senate Rural Affairs and Transport References Committee Inquiry on Pilot Training and Airline Safety including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010, April 2011

Layout

The original recommendations from the three reference documents have been combined and regrouped under focus areas. AIPA made a combined total of 103 recommendations, some of which contain a number of sub-elements and some of which contain minor overlaps with earlier recommendations.

The text of each recommendation appears verbatim from the parent reference. However, the recommendations have been renumbered and sorted by decreasing priority within each focus group for ease of consideration. Priorities are allocated as Priority One, Two or Three. Redundant or superseded recommendations are also identified.

The Focus areas are as follows:

RM	Risk Management
FAT	Pilot Fatigue Management
PE	Pilot Experience
PS	Pilot Selection
TRG	Training Standards
CC	Regulation of Cabin Crew

BAN	Banning Provisions
LAW	Rule Making
REG	CASA (and ATSB) Staffing
INC	Incident/Accident Reporting
GOV	Government Incentives/Support
FIN	Remuneration/Compensation

The original identifier of each recommendation is provided in square brackets at the end of each recommendation, so that the reader can revisit the context within which the original recommendation was made. Some recommendations are applicable to more than one focus area. Where a recommendation is repeated from another focus area, that recommendation will commence with an **[RPT xxnn]** annotation and is formatted as **dark blue** text.

Three Sections are presented:

1. AIPA's Priority One Recommendations (36 in total);
2. AIPA's Combined Recommendations by Focus Area and Priority; and
3. Redundant or Superseded Recommendations

SECTION 1 - AIPA'S PRIORITY ONE RECOMMENDATIONS

These 36 recommendations are considered by AIPA to be essential to addressing the subject matter of the Inquiry. Holistic consideration of the nature and urgency of each essential recommendation has resulted in some variation in priority from that seen within focus areas.

They have been selected by AIPA from the total of 95 active recommendations set out in Sections 3. Many of the remaining 59 recommendations to which AIPA has accorded a lower priority support these essential recommendations in the broader industry framework.

ID	PRIORITY ONE RECOMMENDATIONS	
TOP 01	(PE 01)	CASA should require that the Captain and Co-Pilot of jet public transport aircraft should hold ATPLs and, until such time as the existing legislation is modified, that a minimum hours experience requirement be established for High Capacity RPT aircraft Captains and Co-Pilots. [Ref C, Recommendation 37, page 22]
TOP 02	(PE 02)	CASA should restrict the employment of low-experience pilots to non-jet aircraft with 50 or fewer seats as a general rule, with any proposed variation subject to substantial justification on an exceptional circumstances basis. [Ref C, Recommendation 36, page 22]
TOP 03	(RM 01)	CASA should develop and publish a specific policy on the risk mitigation strategies for the employment of low experience pilots to both address the increased risk and to provide a standardised approach for all operators (the costs for that risk mitigation through appropriate supervision and mentoring are the cost of operations and should not be a major determinant for that policy). [Ref C, Recommendation 35, page 22]
TOP 04	(RM 04)	To properly support Safety Managements Systems as the foundation of safe operations, CASA should provide a model of the expected level of risk management training. There needs to be clarity of the relevant target levels as, left without guidance, the industry will do nothing or as little as they believe will appease the local regulatory staff. [Ref C, Recommendation 7, page 20]
TOP 05	(RM 03)	CASA should ensure that risk management modules are included for every licence level and as a prerequisite for the approval of AOC appointments and the granting of most, if not all, approvals, permissions and delegations. [Ref C, Recommendation 8, page 20]
TOP 06	(TRG 01)	AIPA recommends that CASA review the knowledge, specified behavioural objectives and skills required for type rating and recurrent training programmes. This review should focus on the skill set necessary for a pilot of a modern complex aircraft to deal with sophisticated automation, degraded auto-flight modes and manual flight skills throughout the aircraft's flight envelope. It should also define minimal levels of systems and aircraft knowledge such that systems confusion and automation dependency do not become a flight safety issue. [Ref B, page 12]
TOP 07	(TRG 02)	CASA should, given the negative aspects of operating highly automated aircraft, develop an appropriate training model that ensures that the interactions between autopilot, flight director and the flight management system are well understood, that the original equipment manufacturers provide adequate design and operating data and that appropriate procedures to update the knowledge base are in place. [Ref C, Recommendation 6, page 20]

ID	PRIORITY ONE RECOMMENDATIONS	
TOP 08	(LAW 05)	CASA should develop and publish detailed guidance on performance standards for SMSs, including the quality of risk assessments, incident investigation, documentation and records, feedback mechanisms, safety promotion and emergency response planning. [Ref C, Recommendation 14, page 21]
TOP 09	(FAT 1)	CASA should vigorously re-engage in the supervising and monitoring of rostering and fatigue management practices of operators. [Ref C, Recommendation 53, page 23]
TOP 10	(CC 02)	The Committee should refer the matter of cabin crew fatigue management to the Minister for Infrastructure and Transport to be included in his current inquiry into cabin crew numbers. [Ref C, Recommendation 56, page 24]
TOP 11	(LAW 04)	CASA must complete delivery of the revised regulations as a priority, as the implementation and transition phases will necessarily delay the required solutions to current problems. [Ref C, Recommendation 38, page 22]
TOP 12	(GOV 05)	Government should extend efforts in the vocational and higher education areas to provide better support and incentives for people undertaking flying training, in particular by extending HECS support to Air Transport Pilot Licence (ATPL), Flight Instructor and type rating training. [Ref C, Recommendation 44, page 23]
TOP 13	(GOV 06)	Government should review the taxation arrangements for aviation training under the anomalous “self-education” provisions so that unemployed pilots forced to pay for training are not doubly disadvantaged. [Ref C, Recommendation 39, page 22]
TOP 14	(RM 05)	CASA should identify, develop and publish specific aviation risk management guidance material as a matter of urgency. [Ref C, Recommendation 9, page 20]
TOP 15	(RM 02)	AIPA recommends that a comprehensive review of the minimum experience requirements for Australian airline pilots to act as a crew member on Regular Public Transport operations be undertaken by the Civil Aviation Safety Authority with extensive stakeholder input. The ultimate purpose of the review should be to design a compulsory “pilot experience and safety management plan” (PESMP) that would be binding on commercial airlines operating in and out of Australia. In turn, the essence of the PESMP would be to establish a compulsory risk management framework that would see lower experienced pilots having their piloting skills assessed, corrected and confirmed more frequently than experienced flight crew. The PESMP would also have to address a robust support and supervision requirement that would mitigate increased pressure on Captains operating with a low experience crewmember. [Ref B, page 3]
TOP 16	(TRG 04)	CASA extends the improvements identified in the MPL training design across the traditional pilot licences and reviews the adequacy of the theory training in light of modern aircraft and systems development. [Ref A, Recommendation 8, page 45]
TOP 17	(CC 01)	The Committee should refer the matter of cabin crew qualifications, training and competency checking to the Minister for Infrastructure and Transport to be included in his current inquiry into cabin crew numbers. [Ref C, Recommendation 54, page 23]

ID	PRIORITY ONE RECOMMENDATIONS	
TOP 18	(TRG 03)	CASA prepares a public Position Paper on the strategic management of aircraft endorsement training for all industry sectors, including: (a) simulation policy covering all industry sectors; (b) the relevance and progress on Part 142 of the CASRs, (c) the safety implications of self-funded training on Part 25 aircraft, (d) the procedures for syllabus review and quality assurance of training, and (e) the quality control of ATOs and CAR 217 Check pilots. [Ref A, Recommendation 9, page 45]
TOP 19	(TRG 06)	CASA prepares a public Position Paper on the strategic management of IOE/LT and recurrent T&C requirements that is appropriate to: (a) the experience levels, (b) training source, and (c) cultural background of pilots. [Ref A, Recommendation 10, page 45]
TOP 20	(REG 03)	Government should consider an industry support scheme for ATSB (and CASA) along the lines of the Defence Reserve Leave Scheme that would provide an available pool of resources from which the agencies could draw in times of need for specialist knowledge and expertise. [Ref C, Recommendation 4, page 20]
TOP 21	(INC 01)	AIPA recommends that existing provisions for mandatory reporting be strengthened with outcomes obligations to supplement existing prescriptions. [Ref B, page 18]
TOP 22	(INC 03)	**[RPT LAW 10]** AIPA recommends that the Parliament adopt the Transport Safety Investigation Amendment (Incident Reports) Bill 2010. [Ref B, page 19]
TOP 23	(INC 04)	ATSB should review its approach to the investigation and publication of human factors with a view to achieving a more robust and useful learning tool for the industry.
TOP 24	(INC 06)	CASA should ensure that operators demand the highest standards of incident reporting from their personnel and provide appropriate training as part of the safety promotion function of their SMS. [Ref C, Recommendation 26, page 21]
TOP 25	(INC 05)	CASA, in concert with ATSB, should develop and publish guidance on model reporting to minimise understatement of the actual or potential significance of aviation events. [Ref C, Recommendation 25, page 21]
TOP 26	(INC 02)	AIPA recommends that SMS data be accorded appropriate legal protection along the lines of ATSB investigation material. [Ref B, page 19]
TOP 27	(INC 07)	AIPA recommends that SMS data sharing be explored with ATSB as the lead agency. [Ref B, page 20]
TOP 28	(GOV 01)	Government should ensure that cost implications are identified and subsequent decisions made on any supporting funding or subsidy arrangements that may be required to ensure that aviation risk management training underpins the future Australian aviation industry. [Ref C, Recommendation 13, page 20]

ID	PRIORITY ONE RECOMMENDATIONS	
TOP 29	(GOV 03)	The Productivity Commission (PC) should investigate the efficacy of the various pathways to generate the pool of experienced pilots required by the Australian aviation industry as well as options for investment in development of GA feeder operations. That investigation should consider the need for suitable incentives to revitalise the diversity of people choosing aviation as a career path. [Ref C, Recommendation 16, page 21]
TOP 30	(GOV 04)	AIPA recommends that the Bureau of Infrastructure, Transport and Regional Economics (BITRE) be tasked with investigating the price sensitivity of flying as a career choice, pricing structures within the aviation training industry and the relative position of aviation training within Government financial and fee assistance/incentive programs. [Ref B, page 10]
TOP 31	(REG 01)	CASA prepares a public Position Paper on its ability to: (a) attract, train and retain quality technical personnel; (b) develop and implement more contemporary and future-looking regulatory models to protect flight standards; and (c) adequately protect the public interest through its supervisory mechanisms. [Ref A, Recommendation 13, page 46]
TOP 32	(REG 02)	AIPA recommends that the Government fund CASA to keep designated personnel current with technologies employed by the RPT sector. This may mean embedding CASA personnel for a period of time in industry or regular training of key CASA personnel. [Ref B, page 14]
TOP 33	(FIN 01)	AIPA recommends that Airline operators no longer be permitted to charge employees for post graduate training programs to fly specific aircraft types. In AIPA's considered view, these forms of training should remain an Airline's cost of doing business. [Ref B, page 8]
TOP 34	(GOV 02)	**[RPT RM 15]** The Australian Parliament reviews the safety consequences of transferring costs which are legitimate costs of business onto employees. [Ref A, Recommendation 22, page 47]
TOP 35	(BAN 01)	The Australian Parliament adopts legislative changes that provide for court-imposed exclusion periods for any person found guilty of an offence under the Civil Aviation and related acts. [Ref A, Recommendation 21, page 47]
TOP 36	(BAN 02)	CASA should investigate options for greater penalties for management personnel found to be "not fit and proper" to hold safety-critical roles within organisations. [Ref C, Recommendation 33, page 22]

- END OF SECTION 1 -

SECTION 2 - AIPA'S COMBINED RECOMMENDATIONS BY FOCUS AREA AND PRIORITY

These 95 active recommendations reflect the priorities and scope of AIPA's submissions to the Inquiry. While the volume may appear large, AIPA is of the view that this is merely a reflection of the complexity of the subject matter and therefore implores the reader to contemplate the totality of these recommendations.

Risk Management

PRIORITY ONE

(RM 01) CASA should develop and publish a specific policy on the risk mitigation strategies for the employment of low experience pilots to both address the increased risk and to provide a standardised approach for all operators (the costs for that risk mitigation through appropriate supervision and mentoring are the cost of operations and should not be a major determinant for that policy). [Ref C, Recommendation 35, page 22]

(RM 02) AIPA recommends that a comprehensive review of the minimum experience requirements for Australian airline pilots to act as a crew member on Regular Public Transport operations be undertaken by the Civil Aviation Safety Authority with extensive stakeholder input. The ultimate purpose of the review should be to design a compulsory "pilot experience and safety management plan" (PESMP) that would be binding on commercial airlines operating in and out of Australia. In turn, the essence of the PESMP would be to establish a compulsory risk management framework that would see lower experienced pilots having their piloting skills assessed, corrected and confirmed more frequently than experienced flight crew. The PESMP would also have to address a robust support and supervision requirement that would mitigate increased pressure on Captains operating with a low experience crewmember. [Ref B, page 3]

(RM 03) CASA should ensure that risk management modules are included for every licence level and as a prerequisite for the approval of AOC appointments and the granting of most, if not all, approvals, permissions and delegations. [Ref C, Recommendation 8, page 20]

(RM 04) To properly support Safety Managements Systems as the foundation of safe operations, CASA should provide a model of the expected level of risk management training. There needs to be clarity of the relevant target levels as, left without guidance, the industry will do nothing or as little as they believe will appease the local regulatory staff. [Ref C, Recommendation 7, page 20]

(RM 05) CASA should identify, develop and publish specific aviation risk management guidance material as a matter of urgency. [Ref C, Recommendation 9, page 20]

PRIORITY TWO

(RM 06) CASA establishes an Industry Training Support Team with appropriate government funding support to identify and develop industry wide training material specific to identified high risk issues, similar to the FAA and OEM groups that dealt with Aircraft Upset and Takeoff Safety. [Ref A, Recommendation 15, page 46]

(RM 07) CASA should broaden its approach to the formal examination of prospective managers and require operators to provide proper training schemes for managers, including continuing professional development. [Ref C, Recommendation 34, page 22]

(RM 08) CASA considers processes to monitor occupational stress within an operator's technical employees as a flight safety risk factor, including;

(a) remuneration and conditions of service,
(b) management training and development schemes,
(c) rostering practices,
(d) commuting rules, and
(e) the implementation of "Just Culture" or similar schemes.

[Ref A, Recommendation 12, page 46]

(RM 09) CASA formally conducts an Industry Risk Profile Assessment for each area of its regulatory responsibility. [Ref A, Recommendation 1, page 45]

(RM 10) CASA establishes Industry Risk Management Teams that include demographically relevant representatives by industry sector, in particular industrial representative bodies such as AIPA. [Ref A, Recommendation 2, page 45]

PRIORITY THREE

(RM 11) CASA should ensure that there is defined (aviation risk management) courseware to ensure a uniform response across the industry. The delivery level needs to be identified within the current vocational and tertiary sectors for each required course. [Ref C, Recommendation 11, page 20]

(RM 12) CASA should require each operator to ensure that each and every employee has a relevant understanding of risk management. [Ref C, Recommendation 10, page 20]

(RM 13) Government should ensure that CASA has the interdepartmental support to exert control over who delivers aviation training. This risk management training must be certifiable within the Australian education system. [Ref C, Recommendation 12, page 20]

(RM 14) Based on emerging trends, Government should conduct a policy risk assessment and review with industry and Departmental stakeholders, including DIT, DEEWR, ACCC, PC and DIAC and the Australian Skills Quality Authority (ASQA). [Ref C, Recommendation 42, page 23]

(RM 15) The Australian Parliament reviews the safety consequences of transferring costs which are legitimate costs of business onto employees. [Ref A, Recommendation 22, page 47]

(RM 16) CASA considers treating those operators who require "pay for training" or who offer "pay to fly" schemes as higher risk operations for surveillance purposes than those that do not. [Ref A, Recommendation 6, page 45]

(RM 17) (By extension,) CASA should review the processes for oversight of foreign operators to ensure that they cater for differences in compliance standards assessed by ICAO for the various States of registry flying into Australia. [Ref C, Recommendation 50, page 23]

Pilot Fatigue Management

PRIORITY ONE

(FAT 1) CASA should vigorously re-engage in the supervising and monitoring of rostering and fatigue management practices of operators. [Ref C, Recommendation 53, page 23]

PRIORITY TWO	
(FAT 2)	CASA should reconsider the concept of requiring a Rostering Protocol to be agreed between operators and flight crew as a condition of granting exemptions to CAO 48. [Ref C, Recommendation 51, page 23]
(FAT 3)	Operators should consider the mutual benefits of introducing formal Fatigue Management Committees under the auspices of the SMS. [Ref C, Recommendation 52, page 23]

Pilot Experience

PRIORITY ONE	
(PE 01)	CASA should require that the Captain and Co-Pilot of jet public transport aircraft should hold ATPLs and, until such time as the existing legislation is modified, that a minimum hours experience requirement be established for High Capacity RPT aircraft Captains and Co-Pilots. [Ref C, Recommendation 37, page 22]
(PE 02)	CASA should restrict the employment of low-experience pilots to non-jet aircraft with 50 or fewer seats as a general rule, with any proposed variation subject to substantial justification on an exceptional circumstances basis. [Ref C, Recommendation 36, page 22]
(PE 03)	**[RPT RM 02]** AIPA recommends that a comprehensive review of the minimum experience requirements for Australian airline pilots to act as a crew member on Regular Public Transport operations be undertaken by the Civil Aviation Safety Authority with extensive stakeholder input. The ultimate purpose of the review should be to design a compulsory "pilot experience and safety management plan" (PESMP) that would be binding on commercial airlines operating in and out of Australia. In turn, the essence of the PESMP would be to establish a compulsory risk management framework that would see lower experienced pilots having their piloting skills assessed, corrected and confirmed more frequently than experienced flight crew. The PESMP would also have to address a robust support and supervision requirement that would mitigate increased pressure on Captains operating with a low experience crewmember. [Ref B, page 3]

PRIORITY TWO	
(PE 04)	CASA should re-examine supervision within GA and the low capacity airlines and consider requiring continuing professional development approaches to capitalise on the exposure to real world operations. [Ref C, Recommendation 28, page 22]
(PE 05)	**[RPT RM 01]** CASA should develop and publish a specific policy on the risk mitigation strategies for the employment of low experience pilots to both address the increased risk and to provide a standardised approach for all operators (the costs for that risk mitigation through appropriate supervision and mentoring are the cost of operations and should not be a major determinant for that policy). [Ref C, Recommendation 35, page 22]
(PE 06)	A wider range of certified courses of aviation specific training, including simulator instructor, HF/NTS Instructor and aviation course development training, should be identified and developed as part of an overall CASA risk mitigation strategy and supported by Government through HECS and other industry support incentives. [Ref C, Recommendation 30, page 22]
(PE 07)	CASA reviews the experience requirements for Captains of LCRPT as set out in CAO 82.3, particularly the AICUS provisions in light of the change in approach by both CASA and operators to the meaningful conduct of AICUS. [Ref A, Recommendation 3, page 45]

(PE 08)	CASA reviews the need to establish minimum experience requirements for Captains of High Capacity RPT, conceptually similar to that published for Low Capacity RPT. [Ref A, Recommendation 4, page 45]

PRIORITY THREE	
(PE 09)	The focus by CASA on competency based training should be broadened to include management and operational support staff. [Ref C, Recommendation 29, page 22]
(PE 10)	AIPA recommends that the experience requirements for the grant of an Australian ATPL should be reviewed to ensure that sufficient weight is placed on multi-engine aeroplane experience as opposed to the recognition of glider and ultralight experience. [Ref B, page 6]
(PE 11)	CASA should better define and more closely monitor "on the job" training and mentoring for all safety critical roles. [Ref C, Recommendation 31, page 22]

Pilot Selection

PRIORITY TWO	
(PS 1)	CASA considers adopting through a CAAP the selection processes published by IATA as a means of establishing an industry best practice model for pilot selection for commercial purposes licences. [Ref A, Recommendation 5, page 45]

PRIORITY THREE	
(PS 2)	Industry representative bodies consider adopting common best practice models for selection and training, to the extent of providing joint venture or other collaborative arrangements to conduct these activities on behalf of a number of operators. [Ref A, Recommendation 18, page 46]

Training Standards

PRIORITY ONE	
(TRG 01)	AIPA recommends that CASA review the knowledge, specified behavioural objectives and skills required for type rating and recurrent training programmes. This review should focus on the skill set necessary for a pilot of a modern complex aircraft to deal with sophisticated automation, degraded auto-flight modes and manual flight skills throughout the aircraft's flight envelope. It should also define minimal levels of systems and aircraft knowledge such that systems confusion and automation dependency do not become a flight safety issue. [Ref B, page 12]
(TRG 02)	CASA should, given the negative aspects of operating highly automated aircraft, develop an appropriate training model that ensures that the interactions between autopilot, flight director and the flight management system are well understood, that the original equipment manufacturers provide adequate design and operating data and that appropriate procedures to update the knowledge base are in place. [Ref C, Recommendation 6, page 20]

(TRG 03) CASA prepares a public Position Paper on the strategic management of aircraft endorsement training for all industry sectors, including:

(a) simulation policy covering all industry sectors;

(b) the relevance and progress on Part 142 of the CASRs,

(c) the safety implications of self-funded training on Part 25 aircraft,

(d) the procedures for syllabus review and quality assurance of training, and

(e) the quality control of ATOs and CAR 217 Check pilots.

[Ref A, Recommendation 9, page 45]

(TRG 04) CASA extends the improvements identified in the MPL training design across the traditional pilot licences and reviews the adequacy of the theory training in light of modern aircraft and systems development. [Ref A, Recommendation 8, page 45]

(TRG 05) **[RPT PE 06]** A wider range of certified courses of aviation specific training, including simulator instructor, HF/NTS Instructor and aviation course development training, should be identified and developed as part of an overall CASA risk mitigation strategy and supported by Government through HECS and other industry support incentives. [Ref C, Recommendation 30, page 22]

(TRG 06) CASA prepares a public Position Paper on the strategic management of IOE/LT and recurrent T&C requirements that is appropriate to:

(a) the experience levels,

(b) training source, and

(c) cultural background of pilots.

[Ref A, Recommendation 10, page 45]

PRIORITY TWO

(TRG 07) **[RPT RM 06]** CASA establishes an Industry Training Support Team with appropriate government funding support to identify and develop industry wide training material specific to identified high risk issues, similar to the FAA and OEM groups that dealt with Aircraft Upset and Takeoff Safety. [Ref A, Recommendation 15, page 46]

(TRG 08) CASA continues with its excellent work improving standards of instructor training and instrument flying training and extends the work to include CAR 217 training and check pilots as soon as practicable. [Ref A, Recommendation 7, page 45]

(TRG 09) **[RPT RM 03]** CASA should ensure that risk management modules are included for every licence level and as a prerequisite for the approval of AOC appointments and the granting of most, if not all, approvals, permissions and delegations. [Ref C, Recommendation 8, page 20]

(TRG 10) **[RPT RM 05]** CASA should identify, develop and publish specific aviation risk management guidance material as a matter of urgency. [Ref C, Recommendation 9, page 20]

(TRG 11) **[RPT RM 04]** To properly support Safety Managements Systems as the foundation of safe operations, CASA should provide a model of the expected level of risk management training. There needs to be clarity of the relevant target levels as, left without guidance, the industry will do nothing or as little as they believe will appease the local regulatory staff. [Ref C, Recommendation 7, page 20]

(TRG 12) **[RPT RM 07]** CASA should broaden its approach to the formal examination of prospective managers and require operators to provide proper training schemes for managers, including continuing professional development. [Ref C, Recommendation 34, page 22]

(TRG 13) **[RPT RM 11]** CASA should ensure that there is defined (aviation risk management) courseware to ensure a uniform response across the industry. The delivery level needs to be identified within the current vocational and tertiary sectors for each required course. [Ref C, Recommendation 11, page 20]

(TRG 14)	**[RPT PE 09]** The focus by CASA on competency based training should be broadened to include management and operational support staff. [Ref C, Recommendation 29, page 22]
(TRG 15)	**[RPT PE 11]** CASA should better define and more closely monitor "on the job" training and mentoring for all safety critical roles. [Ref C, Recommendation 31, page 22]

PRIORITY THREE	
(TRG 16)	**[RPT RM 12]** CASA should require each operator to ensure that each and every employee has a relevant understanding of risk management. [Ref C, Recommendation 10, page 20]
(TRG 17)	**[RPT RM 13]** Government should ensure that CASA has the interdepartmental support to exert control over who delivers aviation training. This risk management training must be certifiable within the Australian education system. [Ref C, Recommendation 12, page 20]
(TRG 18)	CASA should review the level of testing of all applicants for Australian licences, ratings, approvals and permissions based on foreign qualifications. [Ref C, Recommendation 48, page 23]
(TRG 19)	CASA should ensure that all crew members on Australian aircraft meet the same standards of training, competency checks and English language proficiency. [Ref C, Recommendation 47, page 23]
(TRG 20)	CASA prepares a public Position Paper on the intended outcomes, including privacy protection and employment consequences, underpinning the recent CASA demand for the CAR 217 records of individual pilots. [Ref A, Recommendation 16, page 46]
(TRG 21)	**[RPT RM 17]** (By extension,) CASA should review the processes for oversight of foreign operators to ensure that they cater for differences in compliance standards assessed by ICAO for the various States of registry flying into Australia. [Ref C, Recommendation 50, page 23]

Regulation of Cabin Crew

PRIORITY ONE	
(CC 01)	The Committee should refer the matter of cabin crew qualifications, training and competency checking to the Minister for Infrastructure and Transport to be included in his current inquiry into cabin crew numbers. [Ref C, Recommendation 54, page 23]
(CC 02)	The Committee should refer the matter of cabin crew fatigue management to the Minister for Infrastructure and Transport to be included in his current inquiry into cabin crew numbers. [Ref C, Recommendation 56, page 24]

PRIORITY TWO	
(CC 03)	CASA should ensure that training and checking of cabin crew should be subject to similarly rigorous legislative controls as apply to flight crew. [Ref C, Recommendation 55, page 24]

PRIORITY THREE	
(CC 04)	In its base modelling of acceptable operational structures, CASA should include consideration of the management linkages between Flight Operations and Cabin Crew management to ensure that AOC post holders who have responsibility for safety of flight have appropriate authority over flight standards matters. [Ref C, Recommendation 57, page 24]

Banning Provisions

PRIORITY ONE	
(BAN 01)	The Australian Parliament adopts legislative changes that provide for court-imposed exclusion periods for any person found guilty of an offence under the Civil Aviation and related acts. [Ref A, Recommendation 21, page 47]
(BAN 02)	CASA should investigate options for greater penalties for management personnel found to be "not fit and proper" to hold safety-critical roles within organisations. [Ref C, Recommendation 33, page 22]

Rule Making

PRIORITY ONE	
(LAW 01)	**[RPT PE 01]** CASA should require that the Captain and Co-Pilot of jet public transport aircraft should hold ATPLs and, until such time as the existing legislation is modified, that a minimum hours experience requirement be established for High Capacity RPT aircraft Captains and Co-Pilots. [Ref C, Recommendation 37, page 22]
(LAW 02)	**[RPT PE 02]** CASA should restrict the employment of low-experience pilots to non-jet aircraft with 50 or fewer seats as a general rule, with any proposed variation subject to substantial justification on an exceptional circumstances basis. [Ref C, Recommendation 36, page 22].
(LAW 03)	**[RPT RM 01]** CASA should develop and publish a specific policy on the risk mitigation strategies for the employment of low experience pilots to both address the increased risk and to provide a standardised approach for all operators (the costs for that risk mitigation through appropriate supervision and mentoring are the cost of operations and should not be a major determinant for that policy). [Ref C, Recommendation 35, page 22]
(LAW 04)	CASA must complete delivery of the revised regulations as a priority, as the implementation and transition phases will necessarily delay the required solutions to current problems. [Ref C, Recommendation 38, page 22]
(LAW 05)	CASA should develop and publish detailed guidance on performance standards for SMSs, including the quality of risk assessments, incident investigation, documentation and records, feedback mechanisms, safety promotion and emergency response planning. [Ref C, Recommendation 14, page 21]
(LAW 06)	**[RPT RM 03]** CASA should ensure that risk management modules are included for every licence level and as a prerequisite for the approval of AOC appointments and the granting of most, if not all, approvals, permissions and delegations. [Ref C, Recommendation 8, page 20]

PRIORITY TWO	
(LAW 07)	CASA should develop and publish resourcing models for typical SMSs, including staff positions by type and number of personnel as well as qualifications, training and professional development targets. [Ref C, Recommendation 14, page 21]
(LAW 08)	**[RPT RM 05]** CASA should identify, develop and publish specific aviation risk management guidance material as a matter of urgency. [Ref C, Recommendation 9, page 20]

(LAW 09)	CASA should urgently introduce a condition on AOCs that requires operators to facilitate participation in independent anonymous surveys conducted by ATSB to truly get a measure of the management climate and safety culture of operators. [Ref C, Recommendation 14, page 21]
(LAW 10)	AIPA recommends that the Parliament adopt the Transport Safety Investigation Amendment (Incident Reports) Bill 2010. [Ref B, page 19]
(LAW 11)	AIPA recommends examination of an ASAP type program as part of the formal adoption of a regulatory "Just Culture" for aviation. [Ref B, page 20]

PRIORITY THREE	
(LAW 12)	CASA should, when designing regulatory interventions, consider the consequences of each operator adopting a business model that satisfies each and every compliance requirement at the minimum permitted level. [Ref C, Recommendation 5, page 20]
(LAW 13)	CASA should ensure that operators publish the policy and procedures for "Just Culture", train all levels of management and the staff and regularly review the implementation and performance of those policies and procedures. [Ref C, Recommendation 14, page 21]
(LAW 14)	**[RPT RM 12]** CASA should require each operator to ensure that each and every employee has a relevant understanding of risk management. [Ref C, Recommendation 10, page 20]
(LAW 15)	AIPA recommends that CASA, in consultation with industry, further review the rule making for flight standards to ensure its relevance and effectiveness. [Ref B, page 14]
(LAW 16)	Government should ensure that adequate safety-based feedback mechanisms exist within industry and between industry sectors and the regulator to ensure that interaction is holistic and productive rather than fragmented and divisive. [Ref C, Recommendation 45, page 23]

CASA (and ATSB) Staffing

PRIORITY ONE	
(REG 01)	CASA prepares a public Position Paper on its ability to: (a) attract, train and retain quality technical personnel; (b) develop and implement more contemporary and future-looking regulatory models to protect flight standards; and (c) adequately protect the public interest through its supervisory mechanisms. [Ref A, Recommendation 13, page 46]
(REG 02)	AIPA recommends that the Government fund CASA to keep designated personnel current with technologies employed by the RPT sector. This may mean embedding CASA personnel for a period of time in industry or regular training of key CASA personnel. [Ref B, page 14]
(REG 03)	Government should consider an industry support scheme for ATSB (and CASA) along the lines of the Defence Reserve Leave Scheme that would provide an available pool of resources from which the agencies could draw in times of need for specialist knowledge and expertise. [Ref C, Recommendation 4, page 20]

PRIORITY TWO	
(REG 04)	AIPA recommends that the Government review CASA salaries with a view to making them more attractive to suitably qualified applicants for key operational roles. [Ref B, page 14]
(REG 05)	AIPA recommends that CASA develops internal professional development programs, in consultation with industry and academia, to ensure that CASA staff are familiar with and employing current best practice in aviation training, technologies and systems development. [Ref B, page 14]
(REG 06)	CASA extends its internal staff training requirements for inspectors to develop model training and experience requirements for operators' technical managers. [Ref A, Recommendation 14, page 46]

PRIORITY THREE	
(REG 07)	CASA needs to be adequately resourced to continue its much broadened focus on safety-critical positions and the training systems, particularly during the implementation of the new rules. [Ref C, Recommendation 41, page 23]

Incident / Accident Reporting

PRIORITY ONE	
(INC 01)	AIPA recommends that existing provisions for mandatory reporting be strengthened with outcomes obligations to supplement existing prescriptions. [Ref B, page 18]
(INC 02)	AIPA recommends that SMS data be accorded appropriate legal protection along the lines of ATSB investigation material. [Ref B, page 19]
(INC 03)	**[RPT LAW 10]** AIPA recommends that the Parliament adopt the Transport Safety Investigation Amendment (Incident Reports) Bill 2010. [Ref B, page 19]
(INC 04)	ATSB should review its approach to the investigation and publication of human factors with a view to achieving a more robust and useful learning tool for the industry.
(INC 05)	CASA, in concert with ATSB, should develop and publish guidance on model reporting to minimise understatement of the actual or potential significance of aviation events. [Ref C, Recommendation 25, page 21]
(INC 06)	CASA should ensure that operators demand the highest standards of incident reporting from their personnel and provide appropriate training as part of the safety promotion function of their SMS. [Ref C, Recommendation 26, page 21]
(INC 07)	AIPA recommends that SMS data sharing be explored with ATSB as the lead agency. [Ref B, page 20]

PRIORITY TWO	
(INC 08)	**[RPT LAW 09]** CASA should urgently introduce a condition on AOCs that requires operators to facilitate participation in independent anonymous surveys conducted by ATSB to truly get a measure of the management climate and safety culture of operators. [Ref C, Recommendation 14, page 21]

(INC 09) **[RPT LAW 05]** CASA should develop and publish detailed guidance on performance standards for SMSs, including the quality of risk assessments, incident investigation, documentation and records, feedback mechanisms, safety promotion and emergency response planning. [Ref C, Recommendation 19, page 21]

(INC 10) **[RPT LAW 07]** CASA should develop and publish resourcing models for typical SMSs, including staff positions by type and number of personnel as well as qualifications, training and professional development targets. [Ref C, Recommendation 18, page 21]

(INC 11) Operators should ensure that all managers are trained in the required elements for Procedural Fairness and there should be a primary and appeal procedure as well as an overall implementation and performance review process. [Ref C, Recommendation 21, page 21]

(INC 12) AIPA recommends that CASA examine adopting a more formal approach to "Just Culture" internally and ensure that frontline staff are consistent in their responses to information made available to them by ATSB and operators. [Ref B, page 18]

(INC 13) Operators should embrace employee representative participation in some critical SMS functions, in order to ensure that all stakeholders can have faith that the safety function is being conducted with appropriate autonomy and authority. [Ref C, Recommendation 15, page 21]

(INC 14) The Office of the Privacy Commissioner (OPC) should investigate the application of the Privacy Act to aviation events and, if appropriate, should make a Public Interest Determination to enhance the safety outcomes of investigations. [Ref C, Recommendation 22, page 21]

PRIORITY THREE

(INC 15) **[RPT LAW 11]** AIPA recommends examination of an ASAP type program as part of the formal adoption of a regulatory "Just Culture" for aviation. [Ref B, page 20]

(INC 16) **[RPT LAW 13]** CASA should ensure that operators publish the policy and procedures for "Just Culture", train all levels of management and the staff and regularly review the implementation and performance of those policies and procedures. [Ref C, Recommendation 20, page 21]

(INC 17) ATSB should review existing processes for the categorisation of aviation events to ensure that miscategorisation is minimised and opportunities for system improvement are not lost. [Ref C, Recommendation 24, page 21]

(INC 18) Whilst not strictly translatable in their current form, AIPA recommends that the US and UK models of legislative immunity are examined in order to extract the strongest elements of each system. [Ref B, page 16]

Government Incentives/Support

PRIORITY ONE

(GOV 01) Government should ensure that cost implications are identified and subsequent decisions made on any supporting funding or subsidy arrangements that may be required to ensure that aviation risk management training underpins the future Australian aviation industry. [Ref C, Recommendation 13, page 20]

(GOV 02) **[RPT RM 15]** The Australian Parliament reviews the safety consequences of transferring costs which are legitimate costs of business onto employees. [Ref A, Recommendation 22, page 47]

(GOV 03)	The Productivity Commission (PC) should investigate the efficacy of the various pathways to generate the pool of experienced pilots required by the Australian aviation industry as well as options for investment in development of GA feeder operations. That investigation should consider the need for suitable incentives to revitalise the diversity of people choosing aviation as a career path. [Ref C, Recommendation 16, page 21]
(GOV 04)	AIPA recommends that the Bureau of Infrastructure, Transport and Regional Economics (BITRE) be tasked with investigating the price sensitivity of flying as a career choice, pricing structures within the aviation training industry and the relative position of aviation training within Government financial and fee assistance/incentive programs. [Ref B, page 10]
(GOV 05)	Government should extend efforts in the vocational and higher education areas to provide better support and incentives for people undertaking flying training, in particular by extending HECS support to Air Transport Pilot Licence (ATPL), Flight Instructor and type rating training. [Ref C, Recommendation 44, page 23]
(GOV 06)	Government should review the taxation arrangements for aviation training under the anomalous "self-education" provisions so that unemployed pilots forced to pay for training are not doubly disadvantaged. [Ref C, Recommendation 39, page 22]

PRIORITY TWO

(GOV 07)	**[RPT REG 03]** Government should consider an industry support scheme for ATSB (and CASA) along the lines of the Defence Reserve Leave Scheme that would provide an available pool of resources from which the agencies could draw in times of need for specialist knowledge and expertise. [Ref C, Recommendation 4, page 20]
(GOV 08)	Government should consider establishing a Tripartite Safety Regulation Research body, involving CASA, ATSB and the Aviation Policy portfolio of the Department of Infrastructure and Transport (DIT), to conduct and participate in safety regulation research and innovation. [Ref C, Recommendation 32, page 22]
(GOV 09)	Government should make a clear policy statement on its position with regard to the offshoring of Australian jobs, in particular how it distinguishes between economic efficiency and exploitation of lesser developed societies. [Ref C, Recommendation 2, page 20]
(GOV 10)	Government should review its proposed policy on permitting cabotage (international carriers operating domestically) within the aviation industry, given the stark contrast with coastal shipping. [Ref C, Recommendation 1, page 20]
(GOV 11)	The Australian Government reviews their financial incentives and support mechanisms for aviation training to identify if the those mechanisms should be targeted at the employer or the employee. [Ref A, Recommendation 17, page 46]
(GOV 12)	AIPA recommends that the Government examine incentives to reinvigorate the pool of potential pilots and disincentives for those airlines that misallocate training resources to the detriment of the industry at large. [Ref B, page 8]
(GOV 13)	Government should ensure that no subsidies or other incentives flow to aviation organisations who force excessive levels of training costs onto employees or prospective employees. [Ref C, Recommendation 3, page 20]

PRIORITY THREE

(GOV 14)	Government should consider a levy on operators to partially fund incentives and support for the GA and low capacity public transport sectors and which could attract some level of rebate according to the initial training costs paid directly by the operator. [Ref C, Recommendation 40, page 22]

(GOV 15)	Government should embark on a series of mini-White Papers that provide more detailed policy guidance for each sector and there should be public exposure of current and planned activities that are being justified as driven by that policy statement. [Ref C, Recommendation 46, page 23]
(GOV 16)	The Jetstar Cadet Scheme should be examined by the Australian Taxation Office (ATO), the Department of Education, Employment and Workplace Relations (DEEWR) and the Department of Immigration and Citizenship (DIAC) to ensure that this and similar schemes do not avoid obligations to the Australian Government. [Ref C, Recommendation 17, page 21]
(GOV 17)	Government should consider, through DEEWR and DIAC, imposing a duty on Australian employers to ensure that all employees are protected to the standards that apply to Australian employees. [Ref C, Recommendation 49, page 23]
(GOV 18)	**[RPT RM 13]** Government should ensure that CASA has the interdepartmental support to exert control over who delivers aviation training. This risk management training must be certifiable within the Australian education system. [Ref C, Recommendation 12, page 20]
(GOV 19)	**[RPT INC 22]** Government should move to protect SMS data collected by operators but not necessarily reported to ATSB from misuse, perhaps broadly along the lines of the protection afforded to data in the possession of ATSB. [Ref C, Recommendation 27, page 22]
(GOV 20)	**[RPT RM 14]** Based on emerging trends, Government should conduct a policy risk assessment and review with industry and Departmental stakeholders, including DIT, DEEWR, ACCC, PC and DIAC and the Australian Skills Quality Authority (ASQA). [Ref C, Recommendation 42, page 23]
(GOV 21)	**[RPT LAW 16]** Government should ensure that adequate safety-based feedback mechanisms exist within industry and between industry sectors and the regulator to ensure that interaction is holistic and productive rather than fragmented and divisive. [Ref C, Recommendation 45, page 23]

Remuneration/Compensation

PRIORITY ONE	
(FIN 01)	AIPA recommends that Airline operators no longer be permitted to charge employees for post graduate training programs to fly specific aircraft types. In AIPA's considered view, these forms of training should remain an Airline's cost of doing business. [Ref B, page 8]

PRIORITY TWO	
(FIN 02)	Employers consider financial support supplements based on the cost of living at each of their bases. [Ref A, Recommendation 23, page 47]

- END OF SECTION 2 -

SECTION 3 - REDUNDANT OR SUPERSEDED RECOMMENDATIONS

In the process of providing AIPA's concerns, observations, conclusions and recommendations to the Committee, it is inevitable that some Recommendations have become redundant or have been superseded by expansion of the number of recommendations, recasting of the proposed solutions or being subsumed into a broader view. For completeness, those recommendations identified by AIPA as falling into this category are presented below to assist any reader who might care to audit the disposition of each and every recommendation AIPA has made to the Committee.

REDUNDANT OR SUPERSEDED RECOMMENDATION	
(PE 12)	AIPA recommends that minimum licence and experience requirements should be determined for each crewmember in both Low and High Capacity Regular Public Transport. [Ref B, page 6]
(TRG 22)	CASA develops a best practice model for automation training and usage in line operations, as well as a review process for extant automation training. [Ref A, Recommendation 11, page 46]
(REG 08)	(Alternatively,) AIPA recommends that the Government and CASA look at a method of secondment from industry of key operational personnel for a defined period of time. Properly handled this would ensure that personnel with currency and expertise are available to CASA. [Ref B, page 14]
(INC 19)	AIPA recommends that it is appropriate to provide legislative and employment immunity to pilots who report legitimate safety matters. [Ref B, page 16]
(INC 20)	The Australian Parliament reviews the aviation safety reporting mechanisms to identify ways to increase their effectiveness and reduce impediments to full and open reporting. [Ref A, Recommendation 19, page 46]
(INC 21)	The Australian Parliament adopts legislative changes that make it an offence to interfere with a report of an aviation safety event or a reporter. [Ref A, Recommendation 20, page 46]
(INC 22)	Government should move to protect SMS data collected by operators but not necessarily reported to ATSB from misuse, perhaps broadly along the lines of the protection afforded to data in the possession of ATSB. [Ref C, Recommendation 41, page 22]
(GOV 22)	The PC or the Bureau of Infrastructure, Transport and Regional Economics (BITRE) should investigate the likely trajectory of Australian domestic airline pilot employment to inform the debate and future planning for the training industry. [Ref C, Recommendation 43, page 23]

- END OF SECTION 3 -

aipa

Advancing the interests of our members and the profession

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