Chapter 3

Capacity of the Civil Aviation Safety Authority; and

Incident reporting and immunity (including the Transport Safety Investigation Amendment (Incident Reports) Bill 2010

3.1 This chapter discusses a number of terms of reference concerning airline safety in connection with the capacity of the Civil Aviation Safety Authority and incident reporting and immunity, including the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 (the Bill) (terms of reference (f), (g), (h) and (i)). The specific terms of reference are:

- the capacity of the Civil Aviation Safety Authority to appropriately oversee and update safety regulations given the ongoing and rapid development of new technologies and skills shortages in the aviation sector;
- the need to provide legislative immunity to pilots and other flight crew who report on safety matters and whether the United States and European approaches would be appropriate in the Australian aviation environment;
- reporting of incidents to aviation authorities by pilots, crew and operators and the handling of those reports by the authorities, including the following incidents:
  - the Jetstar incident at Melbourne airport on 21 June 2007, and
  - the Tiger Airways incident, en route from Mackay to Melbourne, on 18 May 2009; and
- how reporting processes can be strengthened to improve safety and related training, including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010.

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

3.2 The committee received evidence in relation to the capacity of the Civil Aviation Authority (CASA) to appropriately oversee and update safety regulations (term of reference (f)), as well as in relation to the regulator's performance more generally.

Industry skills shortages and CASA recruitment challenges

3.3 The committee heard that CASA faces a particular challenge in recruiting appropriately skilled and experienced workers, particularly as it is effectively required to compete with the aviation industry for the same workers:

> CASA recognises that it faces challenges recruiting appropriately skilled and qualified people. CASA draws new employees from the same pool as the rest of the aviation industry, and competition for skilled aviation professionals is increasing in Australia, as it is elsewhere in the world. This growth in the industry will result in an increasingly competitive market for experienced and skilled people, both for the Australian aviation industry and for CASA alike.[1]

3.4 Accordingly, in terms of future requirements, CASA submitted:

> An equally challenging issue for both the industry and CASA is the limited supply of skilled aviation personnel available in Australia. While the demand for aviation services has grown rapidly, the number of qualified and experienced aviation professionals required has not expanded in a similar manner.[2]

3.5 CASA noted that the significant growth in demand for aviation services in Australia was driven by such things as the expansion of the offshore oil and gas and resources industries.[3]

3.6 The Australian and International Pilots Association (AIPA) commented that the ability of CASA to recruit appropriately qualified personnel was limited by its ability to match the salaries on offer in the high end of the private sector:

> As a government agency, CASA cannot match salaries offered by the high end of the private sector. In the flying operations area, salaries are typically equivalent to a First Officer in a full service airline. Therefore, it should not be surprising that CASA occasionally has difficulty recruiting suitably qualified pilots to oversee the industry, particularly as it buys in new aircraft and equipment and adopts new training procedures.[4]

3.7 AIPA also considered that over recent years CASA personnel had lost touch with the current standards and skills which the regulator was meant to oversight:

> Over the years, the practice of CASA Flight Operations personnel undergoing the same training courses and flying the same aircraft as airline pilots has been curtailed as a cost cutting measure. Fears of conflicts of interest and "capture" have resulted in CASA staff being distanced from the operations that they are required to supervise. The focus of previous CASA

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1 *Submission 12*, p. 20.

2 *Submission 12*, p. 20.

3 *Submission 12*, p. 20

4 *Submission 6*, p. 13.

> regimes on the tactical role of auditing has sacrificed the strategic role of global industry oversight. Flying recency in an airline environment is now a thing of the past, as inspectors undergo sporadic simulator exercises with each other rather than as part of an industry crew undergoing scheduled recurrent training.[5]

3.8 As a consequence, AIPA argued that CASA pilots are 'normally not current on the aircraft they are supervising and may never have actually flown the real aircraft', and may not be familiar with the standard operating procedures (SOPs) of the airline. This meant that:

> The CASA pilot is essentially auditing the airline as it meets its own training program and no longer enjoys any of the professional credibility that was historically the norm.[6]

Funding and technological change

3.9 In addressing this term of reference, CASA noted that technological change was a longstanding and consistent feature of the aviation industry:

> The aviation industry has always faced the challenge of dealing with rapid technological change. To suggest that the nature of this challenge has changed fundamentally in recent years overstates the case. At the same time, however, CASA acknowledges that the aviation industry is dynamic and, like many other businesses nowadays, it has to be constantly innovative in managing a range of issues and pressures.[7]

3.10 CASA noted that it had received additional funding of $89.9 million 'in recognition of the need to regulate a growing and increasingly complex industry'.[8]

3.11 AIPA, while acknowledging that funding for CASA was an ongoing issue, noted its concern in relation to CASA's ability to 'respond to changes in modern systems and modern aircraft—and indeed in modern business practices'.[9] Given the increasing technological sophistication of the aviation industry, as well as the advent of new international and low cost business models, AIPA commented:

> AIPA strongly advocates that a new regulatory perspective needs to be applied that accounts not only for the sophisticated technologies of today but also the sophisticated business models that have emerged. We believe that CASA needs to get involved in some serious risk assessment activities with industry and Government stakeholders, including the Department of Infrastructure and Transport (DIT), Department of Education, Employment and Workplace Relations (DEEWR), ACCC, PC and Department of

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5 *Submission 6*, p. 13.

6 *Submission 6*, p. 13.

7 *Submission 12*, p. 19.

8 *Submission 12*, pp 20-21.

9 Mr Dick Mackerras, AIPA, *Committee Hansard*, 1 December 2010, p. 7.

> Immigration and Citizenship (DIAC) and the new national regulator for the vocational education and training, the Australian Skills Quality Authority (ASQA).[10]

3.12 Further:

> AIPA believes that budgetary pressures on CASA have led to a gradual decline in pilot licence, instructor and instrument rating training standards and inadequate control of aircraft conversion training. While this decline is slowly being reversed by recent CASA activities, AIPA is not convinced that CASA has sufficient experienced resources to quickly recover flight standards.[11]

3.13 AIPA therefore believed that:

> Alternative models for supplementing CASA and ATSB staff with appropriate industry personnel must be explored urgently. AIPA believes that the costs should primarily be absorbed by operators as a cost of entry to the industry.[12]

3.14 Specifically, AIPA called for CASA to be:

> …funded to directly participate in…[international flight standards and safety research] as well as to directly participate in safety research within Australia. CASA needs an equivalent of the FAA Academy that not only trains CASA staff but, of equal importance, makes the same or equivalent training available to the industry. AIPA believes that collaborative efforts, such as industry Quality Assurance staff assisting CASA in audit planning and analysis or CASA staff providing specialist regulatory training to industry personnel, can be conducted without conflicts of interest.[13]

3.15 AIPA also believed that the Australian Transport Safety Bureau (ATSB) should be able to access industry expertise and resources in the conduct of its investigations:

> 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.[14]

3.16 Despite acknowledging the historical challenges and dynamic nature of the aviation industry, CASA maintained that it 'is well placed to both regulate and prepare safety legislation for the Australian aviation industry'.[15]

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10 S*ubmission 6, (Supplementary)*, p. 12.

11 S*ubmission 6, (Supplementary)*, p. 2.

12 S*ubmission 6, (Supplementary)*, p. 2.

13 S*ubmission 6, (Supplementary)*, p. 3.

14 *Submission 6, (Supplementary*, p. 7.

15 *Submission 12*, pp 19 and 23.

3.17 The Qantas and Jetstar submission stated:

> An important aspect of aviation safety is to have an independent, appropriately funded and adequately resourced regulator. The nature of the aviation industry means that new aircraft types and technologies are constantly developing. To ensure that the introduction of new technologies is managed in a safe and orderly manner it is important that there is a collaborative approach taken between airlines introducing these new technologies and CASA. There are many examples of this process working effectively: the introduction of the Airbus A380 and Required Navigation Performance being two recent examples.[16]

CASA regulatory reforms

3.18 The committee heard that CASA has been undertaking a reform of the civil aviation regulations which commenced in the 1990s. A number of submitters and witnesses expressed concern over the length of time taken for this process.

3.19 AIPA, for example, while it acknowledged that CASA was under-resourced and had made significant recent efforts, noted that the slowness of reform meant that CASA was working with regulations that are out of date.[17] AIPA submitted that the current 'rule making' process had become 'cumbersome and…involved a number of iterations over the years' leading to 'frustration from industry as significant effort has been applied with apparently little outcome'.[18]

3.20 Similarly, VIPA pointed to a degree of regulatory ineffectiveness that has arisen due to the incomplete shift from a prescriptive regulatory environment under the old regulations to an outcomes based regulatory environment. The VIPA submission explained:

> …in a time of transition in which outcome based management is desired by CASA without the structural support of the required legislation, airlines are able to operate in a way in which they can operate outside the restriction of the current prescriptive and outdated legislation, yet are not being held accountable to the intent of the draft [Civil Aviation Safety Regulations (CASRs)] which are yet to be enacted. During this time CASA has shifted the industry towards the requirement for Safety Management Systems (SMS). This shift has been taken up by the airlines, however there is little agreement between the industry and CASA on exactly what a SMS is, and how the intent is enforceable from a regulatory perspective.[19]

3.21 AIPA was also concerned with aspects of the 'shift to a formal risk management approach' through the implementation of SMSs. AIPA felt that the

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16 *Submission 31*, pp 11-12.

17 Captain Richard Woodward, *Committee Hansard*, 1 December 2010, p. 15.

18 *Submission 6*, p. 13.

19 *Submission 37*, p. 4.

process had been 'inadequately supported in terms of identifying appropriate training models for operators' staff'. A supplementary submission provided by AIPA commented:

> Operators have not fully committed to widespread risk management training due to the potential costs of exceeding CASA's expectations, which at this stage are neither consistent nor well defined.[20]

3.22 AIPA also believed that the SMSs of some operators were not supported by adequately resourced safety departments, particularly in relation to resources required to investigate human factor events. The AIPA supplementary submission stated:

> AIPA is not convinced that SMSs should run on a skeleton full-time staff that is supplemented by line resources when required. That normally means that operational production is favoured over proper safety support.[21]

3.23 Given the variability of resourcing of SMSs in the industry, AIPA called for 'joint CASA/ATSB industry standards for SMS staffing' to be 'established as a matter of urgency'.[22]

3.24 VIPA noted that the slowness of the regulatory reform process meant that airlines had 'been effectively self-regulating for a number of years awaiting the regulatory reform package'. This had 'led to a situation in which there has been very little effective control over entry and supervision of Australian airlines'.[23]

3.25 AIPA acknowledged ongoing reform of the regulations, but questioned the adequacy of current regulations:

> AIPA believes that the present rule set and supporting material is inadequate to ensure long term flight standards resilience.
>
> AIPA supports the current CASA activities in redressing the issues but is concerned that there is still insufficient attention being given to the negative aspects of operating highly automated aircraft.
>
> The current regulations reflect a now-outdated approach to industry practices and business models and are unsuitable as a safety net for minimum compliance.[24]

3.26 VIPA suggested a number of recommendations going to the performance and operations of CASA. These included that:

> (1) CASA formally conduct an Industry Risk Profile Assessment for each area of its regulatory responsibility;

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20 *Submission 6, (Supplementary),* p. 3.

21 *Submission 6, (Supplementary),* p. 5.

22 *Submission 6, (Supplementary),* p. 5.

23 *Submission 37,* p. 5.

24 *Submission 6, (Supplementary),* p. 5.

> (2) CASA establish Industry Risk Management Teams that include demographically relevant representatives by industry sector, in particular industrial representative bodies such as AIPA;
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> …
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> (13) CASA prepare 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;
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> (14) CASA extend its internal staff training requirements for inspectors to develop model training and experience requirements for operators' technical managers; [and]
>
> (15) CASA establish an Industry Training Support Team with appropriate government funding support to identify and develop industry wide training material specific to identified high risk issues…[25]

3.27 CASA acknowledged that regulatory reform process had been 'ongoing for several years', and advised that, along with the new major maintenance regulations, about half of the proposed new operational and flight crew licensing CASR parts were drafted and currently undergoing CASA consultation, to be followed by industry consultation. The drafting of the remainder was expected to be finalised by June 2011.[26]

3.28 Mr Peter Boyd, Executive Manager, Standards Development and Future Technology, advised that CASA had taken steps to expedite the regulatory reforms process:

> Last year it was recognised that the regulatory reform program needed a kick along, if you like, in terms of the time frame. In March 2010 we formed a reg reform task force with the Office of Legislative Drafting and Publishing to do just that. So from March last year our own CASA instructors that look after the policy aspects of drafting the regulations and the office's legal drafters have been housed together in one task force. It has shown quite significant fruit, if you like, in terms of the speed at which we are turning out the legislation.[27]

3.29 CASA advises that a 'portion' of recent additional funding (see above) was to be directed towards supporting the regulatory reform process.

> A portion of [the recent] additional funding is going towards the recruitment of specialist staff for the Standards Development function. The

25 *Submission 37*, p. 7.

26 *Submission 12*, p. 21.

27 *Committee Hansard*, 25 February 2011, p. 113.

> aviation safety regulations are being re-written and, as mentioned above, the [Civil Aviation Regulations (CARs) and the Civil Aviation Orders (CAOs)] are being updated and consolidated in the CASRs and their corresponding…[standards manuals]. This is a demanding task, and considerable additional specialist resources are necessary to complete and to then maintain the rule set into the future.[28]

3.30 AIPA urged that the regulatory reform process be vigorously pursued and that 'no more delays should be accepted'. However, it warned that 'the cost of the implementation of the new rules should not be underestimated by government', and that 'additional funding may be required'.[29]

3.31 AIPA offered a number of recommendations relating to CASA, including that:

- the Government review CASA salaries with a view to making them more attractive to suitably qualified applicants for key operational roles;
- 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;
- that CASA, in consultation with industry, further review the rule making for flight standards to ensure its relevance and effectiveness;
- 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; and
- 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.[30]

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

Transport Safety Investigation Amendment (Incident Reports) Bill 2010

28 *Submission 12*, p. 21.

29 *Submission 6, (Supplementary)*, p. 11.

30 *Submission 6*, p. 14.

3.32 A number of submitters and witnesses provided evidence in relation to the question of whether there is a need to provide legislative immunity to pilots and other flight crew who report on safety matters.

3.33 This question was also central to submissions on the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 (the Bill), which would make it an offence to impose a penalty on, or deprive of benefit, any person who reports an accident or incident. The effect of this offence would be to extend a 'de facto blanket immunity' to reporters of accidents or safety incidents.[31] Given the strong connection between the Bill and the issue of legislative immunity, the Bill in its entirety is considered below.

Legislative immunity versus just culture principles

3.34 Many submissions which commented on term of reference (g) suggested that a specific legislative immunity for pilots reporting safety incidents was unnecessary, given that Australian airlines generally employ 'just culture' principles in relation to their incident reporting systems and processes.

3.35 The Qantas and Jetstar submission explained that just culture is:

> …an approach to safety that has gained considerable international support. It is made up of two concepts. 'Culture' which is expressed as 'the way we do things around here' and 'just' which refers to a fair, consistent and transparent approach. In the context of safety management, the Just Culture philosophy recognises that mistakes are often a symptom of systemic issues in the organisation, workplace and the limitations of humans themselves. Therefore, a Just Culture promotes an atmosphere of openness and voluntary sharing of information, where staff feel comfortable to admit to mistakes without fear of reprisal.[32]

3.36 The submission went on to characterise just culture as maintaining a:

> …balance between a 'blame free' culture, which complete legislative immunity would provide, and a 'punitive' culture, which is also undesirable as it hampers transparent, accurate and prompt reporting.[33]

3.37 This importance of just culture in terms of safety was that it is:

> …critical to ensuring prompt and accurate reporting of safety information', and 'assists in identifying the underlying reasons why a specific action was taken in a specific context, so that the most appropriate remedial actions can be taken.[34]

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31 *Submission 25*, p. 21.

32 *Submission 31*, p. 12.

33 *Submission 31*, p. 12.

34 *Submission 31*, pp 12-13.

3.38 Qantas and Jetstar submitted that:

> …[the] current regulatory framework with respect to reporting requirements is robust, effective and consistent with international best practice. The [Qantas] Group believes that the current reporting requirements advance the principles of Just Culture whilst having sufficient scope to take punitive and corrective action, where appropriate.[35]

3.39 The Virgin Blue Group (Virgin) submitted that, in light of the operations of just culture principles, the provision of legislative immunity would 'not enhance safety':

> …the proposed provision of legislative immunity to pilots and other flight crew who report on safety matters would not enhance safety. Virgin Blue's approach to safety is based on principles of open reporting and a just culture, which explicitly avoids the use of Safety Management Systems as a punitive tool.[36]

3.40 Similarly, Tiger Airways stated that it maintains a safety reporting system and promotes a 'just safety culture', which extends to the reporting of incidents to the regulator. However, it noted that, while authorities should not take action against an individual who makes a report purely on the basis of that report:[37]

> …the pilot carries an obligation to his passengers. The passengers have a right to expect that if the pilot commits a breach of the law that the law will be suitably applied and that the pilot should not be a hallowed individual who in any sense sits above the law. Regulations must strike a balance between the need to 'learn from the errors of others' that arise from the frank admission of error (to which it is desirable to apply some level of immunity…) and the need to ensure that pilots act responsibly in accordance with the law.[38]

3.41 Regional Express submitted that it did not have any significant issues with the 'status quo' as it exists in Australia.[39]

3.42 AIPA, however, questioned the extent to which just culture principles and practices were operating effectively, and maintained that there were 'persistent impediments to establishing a culture of free and open reporting of aviation safety data'. The AIPA supplementary submission commented:

> Historically, aviation personnel are distrustful of management and cultural shifts in reporting activities are hard won and easily lost. The required level of transparency requires an overt implementation program and, in our view,

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35 *Submission 31*, p. 15.

36 *Submission 17*, p. 2.

37 *Committee Hansard*, 1 December 2010, p. 23.

38 *Submission 14*, p. 4.

39 *Committee Hansard*, 1 December 2010, p. 44.

> unprecedented levels of access and review. Separately and perhaps more problematic, there are also entrenched ego and self-esteem issues at the operating level that are inherently difficult to overcome.
>
> While 'Just Culture' is on everyone's lips, there is much anecdotal evidence of inadequate training of managers and many managerial responses that have created distrust and a fear of retribution where reports are critical of operator policies and procedures.[40]

Existing protections in relation to reporting systems

3.43 CASA submitted that the question of whether there is a need to provide legislative immunity 'depends upon several considerations', including:

- the nature and substance of the information reported;
- the person or organisation to whom the information is reported;
- the reason for reporting the information;
- the circumstances under which the information is reported; and
- the use to which the information reported is or may be put.[41]

3.44 In respect of reporting systems or responsibilities administered or governed by CASA, CASA noted the availability of a confidential telephone 'hot line' for persons wishing to report aviation related threats to safety. The confidential basis of the service meant that there was 'no need to provide protection for [a] person making a report'.[42]

3.45 In relation to the major defect reporting provisions of the CARs, CASA advised that 'there are no immunity provisions in the civil aviation legislation expressly protecting persons who make reports'. However, as a matter of policy, CASA's practice is:

- …not to disclose the name of the person submitting a report, or of a person to whom it relates, unless required to do so by law or unless in either case the person concerned authorises the disclosure; and
- not to institute proceedings in respect of unpremeditated or inadvertent breaches of the law which come to its attention only because they have been reported under the defect reporting program, except in cases involving a 'dereliction of duty amounting to gross negligence'.[43]

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40 *Submission 6, (Supplementary)*, p. 6.

41 *Submission 25*, pp 25-26.

42 *Submission 12*, p. 25.

43 *Submission 12*, p. 24.

3.46 In addition, the Aviation Self Reporting Scheme (ASRS), operated by CASA and the ATSB, offers a limited immunity for holders of civil aviation authorisations who report specified breaches of the regulations. The CASA submission explained:

> With a receipt issued by the ATSB for the report, the person may claim a kind of immunity from CASA in relation to the contravention, from administrative action to vary, suspend or cancel their authorisation, or from the imposition of an administrative penalty under the infringement notice scheme. The immunity may only be claimed once every five years.[44]

3.47 In respect of the reporting systems administered or governed by the ATSB, the ATSB advised that it operates a confidential reporting scheme established under the Air Navigation (Confidential Reporting) Regulations 2007, known as REPCON.[45] The committee notes that, as with the CASA reporting hot line, there is no need to provide immunity to people making a confidential report.

3.48 The ATSB also administers a mandatory reporting scheme under the Transport Safety Investigation Act (the Act). The ATSB submission noted that:

> In accordance with the provisions of the Transport Safety Investigation Act, the disclosure of information from ATSB investigations for purposes other than addressing identified safety issues within safety systems is limited – even to CASA – in the interests of preserving the free flow of information to the ATSB.[46]

3.49 While AIPA acknowledged that there is some indemnity for reporters [of incidents] in Australia, it argued that it is 'highly specific and largely unknown'.[47]

3.50 These reporting systems are discussed further below in relation to reporting of incidents to aviation authorities (term of reference (h)).

European and US approaches

3.51 The ATSB submitted that it is not aware that any other country's mandatory accident and incident reporting systems [provides a blanket immunity, particularly such as that] proposed in the Bill.[48] In the particular case of the US, there was no immunity offered in relation to the reporting of accidents, incidents and defects; and a relevant EU Directive in the case of Europe provided that cases of 'gross negligence' should not be exempted from proceedings arising from the mandatory reporting of 'unpremeditated or inadvertent infringements'.[49]

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44 *Submission 12*, p. 7.

45 *Submission 25*, p. 7.

46 *Submission 25*, pp 9-10.

47 *Submission 6*, p. 15.

48 *Submission 25*, p. 22.

49 *Submission 25*, p. 22.

3.52 With particular reference to CASA, the ATSB noted that CASA's current approach was already in accordance with EU Directive 2003/42/EC, which relates to occurrence reporting in civil aviation. The directive requires, inter alia, that:

- proceedings are not instituted in respect of unpremeditated or inadvertent infringements of the law only because they have been reported under a mandatory scheme; and
- employees who report incidents are not subjected to any prejudice by their employer.[50]

3.53 CASA's adherence to these principles was evident in the requirement that the regulator's enforcement decisions 'must be proportional responses to the identified breaches and the safety risk they give rise to'. In particular:

> - CASA's first priority is to protect the safety of passengers who are least able to control the aviation related risks to which they are exposed.
> - CASA will take strong action against those who persistently and/or deliberately operate outside the civil aviation law.
> - CASA will seek to educate and promote training or supervision of those who demonstrate a lack of proficiency but show a willingness to comply with the civil aviation law.
> - where consistent with the overarching interests of safety, CASA will consider the use of infringement notices rather than administrative action when dealing with private pilots who breach the law.[51]

3.54 The ATSB concluded:

> In light of CASA's clearly articulated enforcement policy, every aviation professional should have an expectation that CASA will not use information from accident and incident reports that it receives via the ATSB to take enforcement action against individuals in circumstances where they have shown a willingness and an ability to comply with the requirements of the civil aviation legislation.[52]

Conformity with international approaches through Safety Management Systems

3.55 The ATSB observed that airline operators are effectively required to implement the principles of EU Directive 2003/42/EC with respect to prejudicial actions against employees who make reports through their safety management systems (SMSs). The ATSB submission stated:

> A fair and open reporting culture is an integral part of an effective Safety Management System and this includes a clear understanding amongst all

50 *Submission 25*, pp 21-22.

51 *Submission 25*, p. 23.

52 *Submission 25*, p. 23.

> interested parties about confidentiality, reporting requirements, and individual responsibilities. A clear distinction between what is acceptable behaviour and what is unacceptable is required, as is the expectation that people will be treated accordingly.[53]

3.56 Similarly, the CASA submission highlighted the 'principle underpinning the standards and recommended practices specified in Annex 13 to the Chicago Convention, 'Aircraft Accident and Incident Investigation', to which Australia is a signatory. This was that:

> The protection of safety information from inappropriate use is essential to ensure its continued availability, since the use of safety information for other than safety-related purposes may inhibit the future availability of such information, with an adverse effect on safety.[54]

3.57 CASA observed that 'inappropriate use' extends to the use of safety information for 'disciplinary, civil, administrative and criminal proceedings against operational personnel', and asserted that such protection was 'to some extent…extended, in principle, to employees of organisations required to have and maintain a SMS, [which includes airline operators].'[55]

3.58 CASA noted that the integrity of an SMS relies on:

> …the certainty that information voluntarily provided for the purpose of identifying and mitigating safety risks, will not be used by an employer for otherwise disciplinary or punitive purposes.[56]

3.59 CASA pointed to guidance material supporting SMS requirements, which specify the inclusion of a commitment to an open reporting culture in which there are 'clear boundaries about confidentiality, reporting requirements and individual responsibilities '.[57]

3.60 CASA stressed that information reported under a SMS could, however, be used for punitive or disciplinary purposes, or disclosed for the purposes of civil or criminal proceedings, where the conduct involved was the result of a 'wilful, reckless or grossly negligent act on the part of the person against whom the information is used'.[58]

3.61 CASA also stressed that it was proper to use information reported under a SMS for safety related regulatory purposes. The CASA submission explained:

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53 *Submission 25*, p. 23.

54 *Submission 12*, p. 26.

55 *Submission 12*, p. 26.

56 *Submission 12*, p. 27.

57 *Submission 12*, p. 27.

58 *Submission 12*, p. 28.

> Such use could involve regulatory action by CASA to vary, suspend or cancel a person's civil aviation authorisation where it is demonstrably unsafe to permit that person to continue to exercise the privileges of his or her authorisation, or to continue to do so in the absence of certain limiting conditions calculated to minimise the risks of an accident or incident.[59]

3.62 The Qantas and Jetstar submission observed that the approach outlined above 'is not dissimilar to the legislative reporting practices in either the European Union or the United States'.[60] It observed:

> The European Union and the United States do not offer absolute immunity to pilots or others who report safely occurrences. Each jurisdiction precludes or discourages prosecution to an extent but also incorporate behavioural limitations outside of which prosecution will be permitted.[61]

3.63 The relevant immunity in the EU 'does not exclude the criminal law entirely and applies only to unpremeditated or inadvertent breaches', while in the US the immunity excludes information 'concerning criminal offences or accidents (as opposed to 'incidents').[62]

3.64 AIPA, however, claimed that 'nothing in Australian legislation or subordinate documents matches either the US or European approaches, [which] both provide qualified protection for reporters'. AIPA did not believe that current aviation safety reporting legislation adequately respects the privilege against self-incrimination that should attend any regulatory scheme that makes reporting mandatory.[63]

List of reportable accidents and incidents

3.65 The ATSB noted that, in 2003, Australia moved to a system of prescriptive mandatory reporting, whereby reportable matters are listed in the Transport Safety Investigation Regulations (the regulations). This is the same approach as is taken by the US and European jurisdictions.

3.66 AIPA expressed concern with the prescribed list of reportable events. The AIPA submission stated:

> Perversely, the prescription of mandatory reports in the Transport Safety Investigation Regulations 2003 allows individuals and operators to 'opt out' of the intended level of reporting by narrowly interpreting the clauses of the relevant regulations. AIPA is concerned that the current prescriptions do

59 *Submission 12*, p. 28.

60 *Submission 31*, p. 13.

61 *Submission 31*, p. 13.

62 *Submission 31*, p. 13.

63 *Submission 6*, p. 16.

> not adequately cover automation issues, human factors events or other emerging risks and that valuable safety data is being lost.[64]

3.67 Accordingly, AIPA recommended that:

> …existing provisions for mandatory reporting be strengthened with outcomes obligations to supplement existing prescriptions.[65]

3.68 The ATSB noted that it considered that 'further improvements can be made to clarify the list of reportable matters contained in the [regulations]'.[66] The ATSB advised that it had therefore initiated a consultation process to establish 'whether a categorisation system similar to the European model would assist industry professionals to better identify the matters that need to be reported'.[67]

Transport Safety Investigation Amendment (Incident Reports) Bill 2010

Establishment of effective immunity for reporting incidents

3.69 As noted above, the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 (the Bill) would effectively provide a blanket immunity for reporters of accidents and safety incidents through establishing an offence for imposing a penalty on, or depriving of benefit, any person who reports an accident or incident. Clause 19A(2) provides that:

> …a person commits an offence if the person inflicts any penalty upon, or deprives any benefit to, a responsible person with knowledge of an immediately reportable matter or a routinely reportable matter in respect of:
>
> (a) the responsible person making any report under this Division;
>
> (b) the content of any report made by the responsible under this Division.

3.70 Captain Woodward advised that AIPA supported the Bill on the basis that it would entrench aspects of a 'just culture' approach to incident reporting. In particular, AIPA argued that Australia should adopt aspects of the reporting systems in the UK and the US, where self-reporting of safety incidents is encouraged through protection from prosecution.[68]

3.71 However, the ATSB submitted that the proposed immunity would be 'dangerous for safety' and 'dangerously counterproductive'.[69] The ATSB submission observed that the proposed immunity could, by making it an offence to inflict a

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64 *Submission 6*, p. 17.

65 *Submission 6*, p. 18.

66 *Submission 25*, p. 25.

67 *Submission 25*, p. 25.

68 *Committee Hansard*, 1 December 2010, p. 11.

69 *Submission 25*, pp 21 and 24.

penalty or deprive of a benefit a person who reports an accident or incident, prevent an operator from taking 'essential safety action'.[70] CASA, as the regulator, may be able to raise a defence of lawful authority in order to take necessary safety action; however, this 'may be uncertain'.[71]

3.72 The ATSB submission explained that there are cases where a person's actions have endangered safety and it is therefore legitimate and necessary for CASA or an airline operator to take action against that person, such as by suspending a licence, or suspending that person from operational duties.[72] The Bill, however, would enable any such person who reported their own actions to claim the immunity offered by the proposed provision in the Bill. The ATSB submission explained:

> The Bill's provisions have the potential to endanger safety by hindering operators taking necessary safety-related action and leaving the situation unclear about whether the provision is intended to prevent safety action by CASA. In either circumstance, preventing essential safety action is inappropriate.[73]

3.73 Similarly, AIPA did not believe that the Bill should extend to the protection of individuals who had committed wilful or negligent acts:

> Both the UK and the United States have more complex systems than we have and arguably they are better developed for safety reporting. The just culture concept is actually entrenched in [International Civil Aviation Organization or] ICAO standards and recommended practices. They are actually moving that way. We would like to see just culture enshrined in Australian legislation, so we actively support… [the proposed] amendment. One of the concepts of a just culture is that wilful negligence, disregard for standard procedures or actually breaking the law is not condoned; it is actually recognised in the just culture concept that those issues are not meant to protect an individual who deliberately or flagrantly breaks the law or is actually just negligent.[74]

3.74 Virgin supported the proposed provision, subject to:

> …amendments that protect against the use of immunity for industrial purposes or to protect against actions that are wilfully reckless, negligent or non-compliant. We would not wish to see legislation protect those who would use immunity for a purpose other than enhancing safety [75]

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70 *Submission 25*, p. 20.

71 *Submission 25*, p. 20.

72 *Submission 25*, p. 21.

73 *Submission 25*, p. 21.

74 *Committee Hansard*, 1 December 2010.

75 *Committee Hansard*, 18 March 2011, p. 2.

3.75 Further, the ATSB submission noted that the terms 'penalty' and 'benefit' as used in the Bill were ambiguous and could also interfere with the taking of genuine safety related actions. It explained:

> If requiring a crew member to undertake additional training were to be regarded as a 'penalty', or if suspension from duties pending a necessary demonstration of proficiency were to be regarded as depriving a person of a 'benefit', the interests of safety could be unacceptably compromised.[76]

3.76 In light of the issue outlined above, the ATSB concluded that the offence as proposed in the Bill would provide a blanket immunity that 'would prevent legitimate safety action being taken when there has been deliberate, reckless or grossly negligent conduct'.[77]

3.77 CASA warned against developing broadly prescriptive policies or legislative mechanisms governing the use of safety related information.[78] Further, CASA noted that it and the ATSB had jointly contributed to working papers raising these issues in the appropriate ICAO forums, which was to underpin the formation of a task force to review the standards and recommended practices in this area (that is, contained in Annex 13 of the Chicago Convention). Given this, CASA urged the committee 'to refrain from recommending the further consideration of legislation in this area pending the outcome of this work'.[79]

3.78 Similarly, while the ATSB offered an alternative wording for a legislatively prescribed immunity, its preference would be to:

> …address legislative protections associated with accident and incident reporting in the light of imminent developments in this area in the international aviation community. In this connection, the Committee's attention is drawn to the resolution adopted by the 37th Session of the ICAO Assembly in October 2010, confirming the establishment of a multi-disciplinary task force, which will inform ICAO's review of the issues germane to the protection of those who provide safety-related information, under safety management systems, to aviation safety regulatory authorities and to accident investigation agencies. The task force is expected to be established by ICAO in November 2010.[80]

Establishment of offence for improperly influencing a responsible person in respect of a report

3.79 Clause 19A(1) of the Bill provides:

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76 *Submission 25*, p. 22.

77 *Submission 25*, p. 22.

78 *Submission 12*, p. 28.

79 *Submission 12*, p. 29.

80 *Submission 25*, p. 24.

> …a person commits an offence if the person, by any improper means, attempts to influence a responsible person with knowledge of an immediately reportable matter or a routinely reportable matter in respect of any report made or required to be made under this Division.

3.80 The ATSB noted that the explanatory memorandum to the Bill states that 'there are currently no penalties for altered reports being provided to aviation authorities', and observed that the apparent intent of this clause of the Bill 'is to ensure accurate reporting'. However, the ATSB noted that the premise of the proposed offence was 'incorrect', as like offences may be found in existing legislation. The ATSB explained:

> It is already an offence under section 137.1 of the Criminal Code to supply false or misleading information to the Commonwealth, which includes the ATSB. The offence in the Criminal Code would apply to circumstances where a pilot makes a report to the safety department of the airline he or she works for and the safety department then falsifies the document before giving it to the ATSB. Further, sections 11.2 and 11.4 of the Criminal Code make it an offence to aid, abet, counsel, procure or urge a person to submit a false or misleading report. These offences may adequately cover 'influencing' someone with respect to their reporting responsibilities.[81]

3.81 In addition, the ATSB was concerned that the clause, as drafted, gave rise to significant problems of interpretation. It observed that:

> …the offence does not require a link between the act of 'influencing' a person and an improper result in relation to the report. In accordance with clause 19A(1), the 'influence' may have resulted in the content of the report being improved and made more accurate but it could still potentially be an offence. It is also difficult to distinguish between the physical elements of the offence and the fault elements that would automatically apply under section 5.6 of the Criminal Code. These problems could lead to difficulties in enforcing the offence, as currently drafted.[82]

81 *Submission 25*, p. 21.

82 *Submission 25*, p. 21.

Reporting of incidents to aviation authorities by pilots, crew and operators and the handling of those reports by the authorities, including the following incidents:

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

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

Reporting of incidents to aviation authorities

3.82 The committee heard that a number of systems exist which compel or allow pilots, crew and operations to report incidents to the appropriate aviation safety authorities. The ATSB observed that the 'inter-relationship of the different systems is relevant for the purpose of addressing some of the inferences in the…[inquiry's terms of reference] and the proposed amendments in the Bill'.[83]

3.83 Both CASA and the ATSB collect accident and incident safety information. CASA, as the industry regulator, is responsible for 'developing and promulgating aviation safety standards and monitoring their implementation by industry'.[84] The ATSB is an independent Commonwealth Government statutory agency established under the *Transport Safety Investigation Act 2003* (TSI Act). The ATSB's primary function is to 'improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in:

- independent 'no-blame' investigations of transport accidents and other safety occurrences;
- safety data recording, analysis and research; and
- fostering safety awareness, knowledge and action.[85]

3.84 The committee heard that primary responsibility for receiving and managing reports concerning matters relating to aviation safety rests with the ATSB. Given this, CASA relies 'heavily' on the ATSB as a source of information regarding accidents and incidents, to support CASA regulatory functions of developing standards and regulations and safety risk management.[86]

83 *Submission 25*, p. 11.

84 *Submission 25*, p. 9.

85 *Submission 25*, p. 3.

86 *Submission 25*, p. 9.

Mandatory reporting systems

ATSB

3.85 Part 3 of the TSI Act provides the framework for the ATSB mandatory reporting system, and requires that *responsible persons* report *immediately reportable matters* (IRMs) (that is, *accidents and serious incidents*) and *routine reportable matters* (RRMs) (that is, *incidents*).

3.86 The TSI regulations prescribe who are responsible persons.[87] Responsible persons include, inter alia:

- a crew member of the aircraft concerned;
- the owner or operator of the aircraft;
- a person who is licensed as an aircraft maintenance engineer and does any work in relation to the aircraft; and
- a member of the staff of CASA.[88]

3.87 The TSI Regulations also prescribe the types of accidents and incidents that must be reported, namely IRMs and RRMs.

3.88 A responsible person is required to report to the ATSB IRMs (as soon as practicable) and RRMs (within 72 hours) that they have knowledge of. However, they are excused from the requirement to report if they believe on reasonable grounds that another responsible person will report the matter within the required timeframe with all the relevant details (if they do not have this belief they are not excused).[89] In practice, a pilot who has made a report to the employing airline's safety department as a requirement of that company's SMS is absolved of the requirement to report to the ATSB (assuming that he or she reasonably believes that the operator will pass the report on to the ATSB). The ATSB submission notes that transport safety legislation allows for operators to develop a culture of accident and incident reporting within their SMS.[90]

3.89 CASA noted that, in accordance with the provisions of the TSI Act, the disclosure of information to CASA from ATSB investigations for purposes other than addressing the safety issues identified is limited 'in the interests of preserving the free flow of information to the ATSB'.[91] However, the two bodies were cooperating closely in the development of ICAO standards to enhance CASA's access to the ATSB's accident and incident notification system, without 'compromising

87 *Submission 25*, p. 11; italicised terms are defined terms for the purposes of the TSI Act.

88 See regulation 2.5 of the Transport Safety Investigation Regulations 2003 for the complete list.

89 *Submission 25*, pp 11-12.

90 *Submission 25*, p. 12.

91 *Submission 25*, pp 9-10.

confidentiality where it is required'.[92] Current consultations around potential changes to the list of mandatory reportable accidents and incidents also offered an opportunity to 'improve these processes domestically'.[93]

3.90 The committee heard that in Australia Part 3 of the *Transport Safety Investigation Act 2003* (TSI Act) requires 'reportable matters' (as defined in the regulations) to be reported to the ATSB. The ATSB submission explained:

> The mandatory reporting scheme is the ATSB's prime source of information for determining whether or not to commence an investigation and is used to conduct research and analysis. CASA receives weekly updates of accident and incident reports with personal information being removed where practicable. De-identified information is also made available to the industry and the public. This is consistent with the amended *Freedom of Information Act 1982* coming into effect on 1 November 2010 which promotes recognition that information held by the Government is to be managed for public purposes, and is a national resource.[94]

CASA

3.91 The defect reporting provisions of Part 4B of the CARs require a person engaged in the maintenance of an Australian aircraft, who becomes aware of a major defect in the aircraft, to report that defect to CASA, as well as to the holder of the certificate of registration for the aircraft. It is an offence for a person to fail to make such a report, however the reporting requirement does not apply if the person is an employee of the person responsible for carrying out the maintenance.[95]

3.92 Under the reporting obligations of the defect reporting scheme a person connected with the operation of, or carrying out of maintenance on, an Australian aircraft discovers a major defect of a particularly significant kind, that person is also required under the regulations to report the defect immediately to CASA, and it is an offence to fail to do so.[96]

3.93 The CASA submission advised that the purpose of these defect reporting requirements is to:

- permit timely airworthiness control action in the Australian aircraft fleet;
- assist in long term improvement in design, manufacturing and maintenance standards; and

92 *Submission 25*, p. 10.

93 *Submission 25*, p. 10.

94 *Submission 25*, p. 7.

95 *Submission 12*, p. 23.

96 *Submission 12*, pp 23-24.

- permit the assessment of risk levels in the Australian aircraft fleet.[97]

Confidential reporting systems

REPCON

3.94 The ATSB advised:

> The ATSB operates a confidential reporting scheme that is established under the Air Navigation (Confidential Reporting) Regulations 2007. This scheme, known as REPCON, allows anyone to confidentially report a safety concern to the ATSB. The ATSB fully de-identifies the report (including information about the reporter and any person referred to in the report), before passing the details to CASA and publicising any identified safety issues in industry magazines like *Flight Safety Australia*. De-identified information is used by the ATSB for research and analysis.[98]

Aviation Self Reporting System (ASRS)

3.95 The ASRS is established under division C of the Act and Subpart 13.K of the CASRs.[99] As noted above, the ASRS is established under the Act and is administered by the ATSB and CASA.

3.96 The ASRS provides for holders of civil aviation authorisations, which includes pilots and other flight crew members, to self-report specified breaches of CASA's regulations to the ATSB. Specified breaches must not include conduct that was deliberate or fraudulent, or caused or contributed to an accident or serious incident; and must not involve a number of regulations prescribed in CASR 13.325.[100]

3.97 As noted above, the ASRS offers a limited form of immunity from administrative action or penalty arising from the reported contravention.[101]

Operator accident and incident reporting systems

3.98 The ATSB advised:

> Airline operators are required by CASA Civil Aviation Orders 82.312 and 82.513 to have in place a Safety Management System. An operator's Safety Management System must contain hazard identification and risk assessment and mitigation processes. Accident and incident reports are not the only source of information for identifying hazards and risks but these reports do form an integral part of an operator's database of information. The operator

97 *Submission 12*, p. 24.

98 *Submission 25*, p. 7.

99 *Submission 12*, p. 23.

100 *Submission 12*, p. 24.

101 *Submission 12*, p. 25.

> needs to know first-hand what is occurring within the organisation. The International Civil Aviation Organization (ICAO) acknowledges the need for this, advising, 'those who operate the system daily are the ones who are in constant contact with the hazards, the consequences of which effective safety reporting aims to mitigate'.[102]

3.99 The ATSB noted that the reporting of accidents and incidents by employees is a 'fundamental part of the development of a good working safety culture'.[103] The ATSB submission stated:

> The safe functioning of an organisation requires that employees report internally so that both the employees and the organisation are risk aware. It is not a good working safety culture if the organisation does not have the responsibility of receiving and assessing accident and incident reports and acting on the information. It is also not a good safety culture if individuals are not encouraged to report accidents and incidents within the organisation. Practices which encourage a culture of risk awareness must be embedded in the organisation.[104]

Adequacy of reporting under current reporting systems

3.100 In terms of compliance with, or level of reporting through, the mandatory reporting scheme, the ATSB noted that a 2008 audit by ICAO concluded that Australia's civil aviation legislation addressed the requirements of Annex 13 of Chicago Convention (which relates to aircraft accident investigation). The ATSB also identified the following indicators in support of ICAO's conclusion:

- an increase in reporting since the commencement of the TSI Act (despite a decrease in the actual number of incidents);
- identified over-reporting by the airline industry (from 2007-10 duplicate reports ran at 14.12 per cent and non-reportable incidents at 26.88 per cent);[105] and
- lack of evidence of operators failing to comply with reporting obligations.[106]

3.101 The ATSB concluded that these indicators suggest that the airline industry 'has been cautious about providing as much information as possible…and that there is not a systemic issue with [the] filtering [of] reports to the ATSB'.[107] Data presented in

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102 *Submission 25*, p. 8.

103 *Submission 25*, p. 8.

104 *Submission 25*, p. 9.

105 *Submission 25*, p. 15.

106 *Submission 25*, p. 13.

107 *Submission 25*, p. 15.

the ATSB submission showed that the 'high capacity air transport sector [has taken] an even more cautious approach…to reporting than the industry as a whole'.[108]

3.102 In relation to operator accident and incident reporting schemes, the ATSB noted that it had not been advised by CASA 'of any significant concerns regarding the effective operation of an operator's internal reporting system'.[109]

3.103 The CASA submission noted that it 'routinely considers and, where appropriate, acts on the findings and recommendations made by the ATSB'.[110]

3.104 Virgin submitted:

> A regulatory requirement to pass on any reports relevant to the Australian Transport Safety Bureau (ATSB) and the Civil Aviation Safety Authority (CASA) is already in place. This occurs on a daily basis in the Virgin Blue Group, with electronic output produced which feeds directly to these agencies. A mechanism for flight crew to report incidents directly to the ATSB and CASA also exists.
>
> It is interesting to note that the list of matters classified as 'immediately reportable' is much broader in Australia than other major aviation regions, and it is proposed to expand this list. In the consideration of this by relevant agencies, the Virgin Blue Group would highlight the need to guard against moving to onerous requirements which have the potential to give rise to 'reporting fatigue' which may ultimately discourage pilots from reporting matters.[111]

3.105 The RAAA submitted:

> With respect to ATSB accident/incident reporting requirements, current arrangements are well understood by the industry and there is no apparent need for change.[112]

3.106 Qantas and Jetstar submitted that the companies generally made determinations regarding the reportability of incidents 'conservatively, such that over rather than underreporting is achieved'.[113]

3.107 However, AIPA submitted that it had 'anecdotal evidence' of underreporting of airline safety incidents in Australia, including incidents involving 'take-off go-around' selection events (see below) and stick-shaker events.[114]

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108 *Submission 25*, p. 15.

109 *Submission 25*, p. 16.

110 *Submission 12*, p. 29.

111 *Submission 17*, p. 2.

112 *Submission 19*, p. 5.

113 *Submission 31*, p. 14.

114 *Committee Hansard*, 1 December 2010, p. 9.

3.108 With reference to the Jetstar 'go-around' event discussed in the following paragraphs, AIPA argued that the incident was a demonstration of the tendency for operators, in determining whether an incident is a reportable event, to classify incidents as not being reportable. Captain Woodward commented:

> The problem we see with a reportable event list is that there are always commercial interests in not reporting your dirty washing to the public because it could be misinterpreted. So having the airline interpret its own safety reports as to whether they should be reported or not is an issue because they will reluctantly report items. The list is reasonably clear though. If you have a ground proximity warning system go off you should report it.[115]

3.109 AIPA expressed its concern that:

> …there does not appear to be a consistent approach from either ATSB, CASA or operators to the accurate categorisation of events and the depth of investigation that attaches thereto.
>
> …AIPA believes that CASA must be capable of conducting 'knowledge' audits based on a consistent standard of operators' SMSs to ensure that proper categorisation of incidents takes place…
>
> AIPA does not believe ATSB or, to a lesser extent CASA, have sufficient well-qualified and experienced professionals within their ranks to meet this particular task. Neither agency can compete financially for expertise and may never have sufficient resources to meet their workload. We need to be able to supplement the normal resources in time of need.[116].

3.110 Captain Klouth discussed a number of occasions in which safety reports were not appropriately submitted to the ATSB because an airline safety department 'did not consider it met the strict criteria of the immediately reportable and routinely reportable matters'. To avoid such outcomes, Captain Klouth called for a legislative requirement that all internal airline safety reports be submitted to the ATSB for scrutiny:

> …[There] should be a legislative requirement that all internal reports, be they draft or final, be copied and submitted to the ATSB. The ATSB can then assess the quality of the investigation, for a start, and also assess whether they need to get involved and investigate further.[117]

3.111 AIPA also favoured strategies for enhancing the distribution of, and access to, safety related data and information. The AIPA supplementary submission stated:

> …there is significant potential for enhancing safety data through cooperative arrangements. ATSB should be able to 'data mine' SMS data that is otherwise not reportable. Operators should share data with other

115 *Committee Hansard*, 1 December 2010, pp 8-9.

116 Submission 6, *(Supplementary)*, p. 7.

117 *Committee Hansard*, 15 February 2011, p. 7.

> operators through some form of safety collective type arrangements, subject to appropriate security and privacy protections.[118]

3.112 In relation to the use of confidential reporting systems, the ATSB noted that the inquiry had attracted a number of reports of safety related incidents. Mr Martin Dolan, ATSB Chief Commissioner, commented:

> [The ATSB's evidence has drawn attention to]…the confidential reporting scheme that we administer. That scheme is explicitly designed to deal with a number of the circumstances that have been referred to this committee where people feel unable to bring safety matters internally to notice. It is a scheme that gives pretty much absolute protection of identity to someone who brings a safety issue to the attention of the ATSB, and we will follow it up with whichever relevant organisation is necessary. It seems to me we need to do a better job of publicising the existence of that scheme and the very strong protection of identity that it gives because it does offer at least one channel for people to raise those issues.[119]

Jetstar incident (Melbourne airport, 21 July 2007)

3.113 Term of reference (h) required the committee to consider a specific incident relating to a 'go-around event' at Melbourne airport in July 2007, which involved a Jetstar aircraft.

3.114 The ATSB transport safety report AO-2007-044 (the ATSB Jetstar report) provides the following abstract of the incident:

> On 21 July 2007, an Airbus Industrie A320-232 aircraft was being operated on a scheduled international passenger service between Christchurch, New Zealand and Melbourne, Australia. At the decision height on the instrument approach into Melbourne, the crew conducted a missed approach as they did not have the required visual reference because of fog. The pilot in command did not perform the go-around procedure correctly [that is, the missed approach setting had not been correctly selected] and, in the process, the crew were unaware of the aircraft's current flight mode. The aircraft descended to within 38 ft of the ground before climbing.
>
> The aircraft operator had changed the standard operating procedure for a go-around and, as a result, the crew were not prompted to confirm the aircraft's flight mode status until a number of other procedure items had been completed. As a result of the aircraft not initially climbing, and the crew being distracted by an increased workload and unexpected alerts and warnings, those items were not completed. The operator had not conducted a risk analysis of the change to the procedure and did not satisfy the incident reporting requirements of its safety management system (SMS) or of the Transport Safety Investigation Act 2003.

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118 *Submission 6, (Supplementary),* p. 8.

119 *Committee Hansard*, 18 March 2011, 2011, pp 54-55.

> As a result of this occurrence, the aircraft operator changed its go-around procedure to reflect that of the aircraft manufacturer, and its SMS to require a formal risk management process in support of any proposal to change an aircraft operating procedure. In addition, the operator is reviewing its flight training requirements, has invoked a number of changes to its document control procedures, and has revised the incident reporting requirements of its SMS.
>
> In addition to the safety action taken by the aircraft operator the aircraft manufacturer has, as a result of the occurrence, enhanced its published go-around procedures to emphasise the critical nature of the flight crew actions during a go-around.[120]

3.115 In its submission to the inquiry, the ATSB noted that the initial reporting of the incident as a RRM was done 'in accordance with acceptable practice'. However, the crew had omitted from that report the fact that the ground proximity warning had sounded during the incident. Jetstar had not become aware of this fact until 'almost two weeks' after the incident occurred.[121] Jetstar did not provide this new information to the ATSB, which found out about the incident through media reports.[122]

3.116 In relation to the failure of Jetstar to report the incident, the Qantas and Jetstar submission explained:

> Following this incident the pilot in command submitted a report to Jetstar which was then provided verbatim to the ATSB within the required 72 hour period. Subsequent to submitting the report, an internal Jetstar investigation of this incident revealed additional information from that provided in the pilot's initial report [ie that two enhanced ground proximity warning system (EGPWS) alerts had been triggered during the event]. This additional information triggered an internal review of missed approach procedures to improve their effectiveness. [However, the ATSB was not notified of the additional information relating to the EGPWS alerts].[123]

3.117 The ATSB Jetstar report identified the failure of Jetstar to advise it of the additional information relating to the EGPWS alerts, and found that Jetstar:

> …had not complied with the requirements of its [safety management system] in relation to the reporting of occurrences and as a result had not complied with the reporting requirements of the *Transport Safety Investigation Act 2003*.

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120 Australian Transport Safety Bureau, 'Go-around event Melbourne Airport, Victoria, 21 July 2007, VH-VQT, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. v.

121 *Submission 25*, pp 17-18.

122 *Submission 25*, p. 18.

123 *Submission 31*, p. 15.

3.118 The ATSB found that there was no evidence that Jetstar's failure to notify it of the EGPWS alerts was a deliberate act, and concluded that it was likely that Jetstar considered that it had satisfied its occurrence reporting obligations under the TSI Act following its first notification of the incident on 26 July 2007. That is, 'Jetstar incorrectly believed that all they were required to do was to make an initial report, not to communicate its changed status'.[124]

3.119 This view was supported by Captain Klouth, who maintained that there was 'no deliberate effort to hide this incident'. However, Captain Klouth identified a lack of resources for investigating the incident as a contributing factor'.[125]

3.120 Noting the broader context of the immunity proposed by the Bill, the ATSB commented:

> Although both Jetstar and the pilots failed in their reporting responsibilities, there was no indication that this was the result of Jetstar 'influencing' the pilots or the pilots requiring 'immunity' because they were concerned about inappropriate 'penalties'. Jetstar took safety action by amending its reporting procedures to ensure future compliance and the ATSB reminded Jetstar that the TSI Act makes it an offence for failing to report matters of which they have knowledge.[126]

3.121 However, the ATSB noted that the TSI Act specifically indicates that, once a person had knowledge of an immediately reportable or routinely reportable matter, they must report that matter within the timeframes indicated in the TSI Act (72 hours in this case).[127] The ATSB Jetstar report stated:

> It was only when the ATSB was alerted by media reports of the potentially serious nature of the occurrence that sufficient information became available from the aircraft operator on which the ATSB could determine the need for a formal investigation under the TSI Act. The delay in the initiation of an ATSB investigation may have the potential to deny opportunities for safety lessons to be learnt and associated safety action to be taken in a timely fashion to prevent recurrence.[128]

3.122 The committee notes that, apart from drawing attention to the failure of Jetstar to report the information relating to the EGPWS alerts, as it was required to by the TSI Act, the ATSB report identified the (a) change to the manufacturer's operating

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124 *Submission 25*, p. 18.

125 *Committee Hansard*, 15 February 2011, p. 4.

126 *Submission 25*, p. 18.

127 Australian Transport Safety Bureau, 'Go-around event Melbourne Airport, Victoria, 21 July 2007, VH-VQT, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. 25.

128 Australian Transport Safety Bureau, 'Go-around event Melbourne Airport, Victoria, 21 July 2007, VH-VQT, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. 26.

procedures and (b) the failure to subject that change to a risk analysis as being 'significant safety issues'.[129]

3.123 The ATSB Jetstar report also commented, in relation to the failure of the flight crew to quickly realise that the incorrect flight mode had been selected:

> Neither the [pilot in command's] (PIC's) nor the co-pilot's training or experience, when coupled with the unexpected distractions and workload during the event, enabled them to quickly diagnose the situation during the early part of the first missed approach.[130]

3.124 The report noted that:

> Evidence from a range of studies worldwide indicates that shortcomings in flight crew training associated with the operation of aircraft automated flight control systems is of ongoing concern. Accidents and incidents where the flight crew have a poor understanding of the operation of the automated systems continue to occur.[131]

3.125 Further, the report noted that the pilots' endorsement training and SOP training had been conducted, respectively, by a third-party training provider and the aircraft operator, and noted:

> The risk with such a separation of training into 'endorsement' and 'post-endorsement' components, with each being provided by different organisations, was that techniques or procedures may either be overlooked, or taught differently by the respective organisations. As a result, trainees could be required to unlearn some of their newly-acquired knowledge or, when under pressure, the possibility exists that crews could revert to previously or first-learned techniques and knowledge.[132]

3.126 On this point, CASA commented:

> The ATSB report into the Jetstar incident found that there was no provision in the current civil aviation legislation in relation to third-party flight crew training providers. In the event, the ATSB found that responsibility for training outcomes was unclear. CASA has advised the ATSB that proposed

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129 Australian Transport Safety Bureau, 'Go-around event Melbourne Airport, Victoria, 21 July 2007, VH-VQT, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. 27.

130 Australian Transport Safety Bureau, 'Go-around event Melbourne Airport, Victoria, 21 July 2007, VH-VQT, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. 23.

131 Australian Transport Safety Bureau, 'Go-around event Melbourne Airport, Victoria, 21 July 2007, VH-VQT, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. 23.

132 Australian Transport Safety Bureau, 'Go-around event Melbourne Airport, Victoria, 21 July 2007, VH-VQT, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. 23.

> CASR Part 142, which deals comprehensively with external training providers, is under review as a matter of priority and has now been progressed to the Office of Legislative Drafting and Publishing. The ATSB reported that this adequately address[es] the safety issue.[133]

3.127 AIPA submitted that the incident was symptomatic of both declining pilot skill levels and underreporting of safety incidents in the airline industry:

> …it seems to us from a distance it is a skill and/or training level thing. We believe that it is probably symptomatic of other incidents that the industry is having. In other words, we think that there is an underreporting of those sorts of incidents. We have anecdotal evidence from our members that that type of incident has occurred before on that particular airline. Certainly in the regional transport sector there have been a number of incidents, not related to that but other issues.[134]

Tiger Airways incident (en route from Mackay to Melbourne, 18 May 2009)

3.128 Term of reference (h) required the committee to consider a specific incident relating to a flight control system event en route from Mackay to Melbourne in May 2009, which involved a Tiger Airways aircraft.

3.129 ATSB transport safety report AO-2009-021 (the ATSB Tiger report) provides the following abstract of the incident:

> On 18 May 2009, an Airbus Industrie A320-232 aircraft, registered VH-VNC was on a regular public transport flight from Mackay, Queensland (Qld) to Melbourne, Victoria when at about 1249 Eastern Standard Time, the aircraft started to vibrate. Cockpit indications showed that the left aileron was oscillating. The crew diverted the aircraft to the Gold Coast Aerodrome, Qld and landed.
>
> The source of the aileron oscillation was an internal fault in one of the left aileron's hydraulic servos. The fault was introduced during manufacture by an incorrect adjustment of the servo, which caused internal wear in a number of the servo's hydraulic control components. The aileron servo manufacturer has incorporated a new method of adjusting the aileron servos during assembly to minimise the likelihood of a recurrence of the problem.
>
> During the investigation, it was found that an identical fault had occurred to the same aircraft 8 months prior to this incident. The previous incident was not reported to the Australian Transport Safety Bureau by the operator as required by the Transport Safety Investigation Act 2003. The operator has improved the training of its staff and the reportable event requirements in its safety management system manual in an effort to address the non-reporting risk.

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133 *Submission 12*, p. 30.

134 *Committee Hansard*, 1 December 2010, p. 8.

3.130 The ATSB Tiger report found that Tiger had not complied with the reporting requirements of the Act , as the aileron problem was a 'routine reportable matter' under regulation 2.4(1) of the Transport Safety Investigation Regulations, which specify that an aircraft system malfunction that does not seriously affect the operation of the aircraft is a reportable matter.

3.131 The ATSB Tiger report commented:

> Whereas the nature of the previous incident, and inability at that time to isolate the fault might have influenced the operator to not report the incident, the incident was a routine reportable matter in accordance with the *Transport Safety Investigation Act 2003*.
>
> Although the ATSB may not have investigated the earlier incident, all reported incidents are entered into the ATSB's occurrence database. That data can then be searched to establish safety trends, potentially contributing to the initiation of a safety issues investigation, or become part of wider safety research and/or education initiatives.[135]

3.132 Noting the broader context of the inquiry, and particularly the immunity and offences proposed by the Bill, the ATSB submission to the inquiry stated that there was no suggestion that the ATSB did not receive a report 'because certain persons had been 'influenced' or that pilots required an 'immunity' of the type suggested.[136] The ATSB considered that it 'appears that Tiger simply (and incorrectly) failed to assess the first incident as reportable',[137] and that this error would be taken into account in the event of future breaches of the Act.

3.133 Tiger Airways confirmed that the failure to report the first incident was due to a mistaken belief that the incident was not reportable. Captain Berry advised:

> Tiger Airways has an open reporting culture but the ATSB does rely to a certain extent on operators filtering reports simply to get the number of reports to a manageable level. It does not want us to report everything although we would be very willing to do so. It was the judgment of Tiger Airways of the first of the incidents, which was not reported to the ATSB, that this matter was nonreportable.[138]

3.134 Captain Berry noted that the reporting of the second incident was based on the different circumstances on that occasion:

> We had two incidents which were related to that particular problem. The first incident occurred and was not reported. The second incident occurred

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135 Australian Transport Safety Bureau, 'Flight control system event, 520km NW of Gold Coast Aerodrome, Queensland, 18 May 2009, VH-VNC, Airbus Industrie A320-232', ATSB Transport Safety Report, Aviation Occurrence Investigation AO-2007-044 (Final), p. 27.

136 *Submission 25*, p. 19.

137 *Submission 25*, p. 19.

138 *Committee Hansard*, 1 December 2010, p. 23.

> several months later and was reported. The distinction between the two incidents was that the first incident did not lead to an emergency diversion and the second incident did. So the first incident was not reported but the second incident was.[139]

3.135 Captain Berry advised that Tiger Airways had accepted the criticism by the ATSB in relation to the non-reporting of the incident, and had altered its procedures to ensure that such incidents would be reported in future:

> On a weekly basis we review all of the safety reports in a safety meeting with the airline, which is attended by all of the airline's senior executives. We analyse all of the safety reports to ensure that reports have been properly reported to the authorities.[140]

3.136 AIPA also characterised this event as being symptomatic of a tendency for operators to underreport safety incidents. In AIPA's view, the incident was undoubtedly a reportable incident, whereas the operator initially chose not to report the event.[141]

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

Transport Safety Investigation Amendment (Incident Reports) Bill 2010

3.137 Given its connection with the question of immunity for reporters of aviation accidents and incidents, the Bill is considered in its entirety above under term of reference (g), relating to the question of legislative immunity.

Other means to strengthen reporting processes to improve safety and related training

3.138 Other means to strengthen reporting processes are considered throughout the report where evidence was received in relation to specific issues.

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139 *Committee Hansard*, 1 December 2010, p. 23.

140 *Committee Hansard*, 1 December 2010, p. 29.

141 *Committee Hansard*, 1 December 2010, p. 9.

Committee view

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

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

Reporting of incidents to aviation authorities by pilots, crew and operators and the handling of those reports by the authorities, including the following incidents:

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

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

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

3.139 Terms of reference (f), (g), (h) and (i) required the committee to consider a broad range of issues concerning airline safety in connection with the capacity of the CASA and incident reporting and immunity, including the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 (the Bill).

3.140 In relation to the capacity of the CASA to appropriately oversee and update safety regulations (term of reference (f)), the evidence to the inquiry highlighted the problems arising from CASA's current regulatory reform process, notably the very long time that the process has been underway. By some reckonings, this process was commenced over 20 years ago, and there is no doubt that regulatory reform of the Australian aviation industry has been characterised by a lack of timeliness.

3.141 The committee wishes to stress that the lack of timeliness in the aviation regulatory reform process has significantly hampered the committee's work, not only in relation to the current inquiry but also in relation to previous inquiries and the committee's examination of the aviation industry through the estimates process. This is because, with an industry as technologically and commercially complex as aviation, it is appropriate for the committee to take a strategic or high level approach, and to generally avoid the making of recommendations that would second-guess or anticipate the outcomes of the CASA reform process. The ongoing failure to resolve and implement important reforms has therefore effectively frustrated the ability of the committee to properly scrutinise aspects of the industry in which important reforms are constantly said to be pending.

3.142 In addition, the committee notes that the significant delay affecting the reform process has created frustration within industry, and apparently contributed to a lack of

engagement with, and knowledge of, important suggested or pending reforms. This is demonstrated by the extent to which many of the issues raised in the course of the inquiry are to be addressed in proposed new regulations (CASRs).

3.143 Despite the preceding observations, the committee heard that the CASA regulatory reform process has been invigorated under the current CASA management and by additional funding from Government. This should see very important new regulations—such as those relating to third party training arrangements discussed in Chapter 2—being implemented in the near future.

3.144 Nevertheless, the committee agrees that the ongoing process of reform would benefit from clearer industry and public understanding of the reform priorities and intended timelines.

3.145 Further, the committee believes that the Government should review CASA's funding to ensure that there is sufficient specific funding to support an expedited reform process.

Recommendation 10

3.146 The committee recommends that the Minister for Infrastructure and Transport provide a report to Parliament every six months outlining the progress of the Civil Aviation Safety Authority's (CASA) regulatory reforms and specifying reform priorities, consultative processes and implementation targets for the following 12-month period.

Recommendation 11

3.147 The committee recommends that the Government undertake a review of the funding to the Civil Aviation Safety Authority (CASA) to ensure that there is sufficient specific funding to support an expedited regulatory reform process.

3.148 The committee heard that an issue of great significance for CASA's capacity to fulfil its regulatory functions is its ability to attract appropriately skilled and qualified personnel, particularly in light of the fact that it competes with industry for employees. Without the ability to compete with the salaries on offer in the aviation industry more broadly, or to otherwise access personnel with high-level and current technical skills and knowledge, there is a significant risk that the regulator will be under-resourced to effectively oversight and respond to technological and commercial changes in the aviation sector. Given this, the committee's view is that the Government should provide CASA with specific funding to enable it to offer salaries that are competitive with industry. In addition, or as an alternative, the committee agreed that the Government should consider implementing formal mechanisms for the sharing of expertise between industry and CASA.

Recommendation 12

3.149 The committee recommends that, as an ongoing measure, the Government provide the Civil Aviation Safety Authority (CASA) with specific funding to enable it to offer salaries that are competitive with industry; in addition, or as an alternative, the Government should consider implementing formal mechanisms for the sharing of expertise between industry and CASA.

3.150 In relation to the need to provide specific immunity to pilots for the reporting of safety incidents (term of reference (g)), the committee considered this issue in conjunction with the Bill, which proposed an effective immunity through establishing an offence for imposing a penalty on, or depriving of a benefit, any person who reports an accident or incident.

3.151 The committee heard that a number of mandatory and confidential accident and incident reporting systems are available for persons wishing to make safety related reports to CASA and the ATSB. While confidential reporting systems in most cases negate the need for immunity, the committee heard that information provided through mandatory reporting to the ATSB is used only for 'no-blame' investigations, and de-identified when shared with CASA. In addition, the self-reporting scheme administered jointly by CASA and the ATSB contains a scheme for limited immunity.

3.152 More broadly, it was argued that the need for express immunity is negated by the broader principles underpinning mandatory airline Safety Management Systems (SMSs), which derive from Australia's international obligations, and require airlines to employ the principles of 'just culture' in relation to the reporting of accidents and incidents. In simple terms, just culture principles require that airlines promote an open and blame free reporting culture.

3.153 On the basis of the existing systems and just culture considerations, a number of submitters and witnesses argued that the need for legislative immunity, as proposed by the Bill, was unnecessary.

3.154 However, AIPA argued that the offence proposed by the Bill would entrench just culture principles, while a modest number of other submitters and witnesses supported the Bill on the basis that it would 'do no harm'.

3.155 The committee received very little evidence relating to the offence proposed in the Bill for influencing a person in respect of the making of a safety report.

3.156 In the case of both proposed offences, there were a number of drafting or technical concerns identified, that called into question the effect of the Bill if passed in its current form.

3.157 However, on the basis of the evidence received, the committee did not consider that there is a necessity for an express legislative immunity for reporters of accidents or safety related incidents, and therefore for the effective immunity proposed in the Bill. Further, there was no compelling case put forward for the proposed offence relating to influencing a person in respect of a safety report.

Recommendation 13

3.158 The committee recommends that the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 not be passed.

3.159 The committee intends to further explore the ATSB's interpretation of these matters at the next opportunity.

3.160 The *Transport Safety Investigation Act 2003*, Part 3, Division 1 "Compulsory Reporting" Sections 18 and 19 deal only with "immediately reportable matters" and "routinely reportable matters".

3.161 The *Transport Safety Investigation Act 2003* Section 3 defines both types of matters in terms of the Regulations. Regulations 2.3 and 2.4 provide lists of reportable events. If the matter is not defined on the list, there is no obligation for it to be reported.

3.162 AIPA recommended in their additional information provided to the committee to add to both the *Transport Safety Investigation Act 2003* and the *Transport Safety Investigation Regulations* a general obligation to report matters that represent an urgent safety risk that may not be otherwise picked up by the prescriptive list.

Recommendation 14

3.163 The committee recommends that the current prescriptive approach needs to be supplemented with a general obligation to report whenever the 'responsible person' believes that there is an urgent safety risk that must be addressed.

Recommendation 15

3.164 The committee recommends that the Australian Transport and Safety Bureau (ATSB) 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.

Recommendation 16

3.165 The committee recommends that the Australian Transport and Safety Bureau (ATSB) review existing processes for the categorisation of aviation events to ensure that miscategorisation is minimised and opportunities for system improvement are not lost.

Recommendation 17

3.166 The committee recommends that the Civil Aviation Safety Authority (CASA), in concern with Australian Transport and Safety Bureau (ATSB), consider developing and publishing guidance on model reporting to minimise understatement of the actual or potential significance of aviation events.

3.167 There is currently no model published by either CASA or the ATSB that establishes a standard for the content and style of incident reports.

3.168 Both the Jetstar go-around incident report and the Jetstar windshear incident report do not appear to have attracted an appropriate level of response from the ATSB at first instance. This appears to be related to the content of these initial reports.

Recommendation 18

3.169 The committee recommends that Civil Aviation Safety Authority (CASA) require operators to observe the highest standards of incident reporting from their personnel and provide appropriate training as part of the safety promotion function of their SMS.

Recommendation 19

The committee recommends that, in order to enhance 'just culture' and open reporting of incidents, aviation operators should ensure that their relevant managers are adequately trained in procedural fairness.