

ATSB Submission:

Senate Inquiry into Pilot Training and Airline Safety Including the Transport Safety Investigation Amendment (Incident Reporting) Bill 2010

Overview of the Submission

This submission details the position of the Australian Transport Safety Bureau (ATSB) in relation to the Terms of Reference for the Inquiry as they encompass the reporting of aviation accidents and incidents. It is a function of the ATSB to receive these reports and to use the information in them to improve future transport safety. In accordance with the *Transport Safety Investigation Act 2003*, this is achieved through independent no-blame safety investigations and through conducting research and analysis to identify systemic safety issues in the industry. The results of both the ATSB investigations and its research are published on its website and discussed directly with members of the industry affected by the ATSB's findings.

In making this submission the ATSB wishes to draw the Committee's attention to the multi-modal status of the ATSB and its investigation and reporting systems. The ATSB has responsibilities for the aviation, maritime and rail transport industries. If the Committee is considering making findings that might result in changes to legislation providing for multi-modal reporting systems, then it may be necessary to consult with all the industries affected. However, while the multi-modal nature of the ATSB and its legislation should be remembered, the ATSB has drafted its submission to focus on the aviation issues which the Terms of Reference seek to address. It is only in relation to the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 that the ATSB has made points about needing to discuss legislative changes with the other industries.

Relevant Terms of Reference and the ATSB's Key Points

Specifically, Terms of Reference (g) to (i) state the Committee on Rural Affairs and Transport is to consider:

...

- (g) the need to provide legislative immunity to pilots and other flight crew who report on safety matters and whether the United States and European approaches would be appropriate in the Australian aviation environment;
- (h) reporting of incidents to aviation authorities by pilots, crew and operators and the handling of those reports by the authorities, including the following incidents:
 - (i) the Jetstar incident at Melbourne airport on 21 June 2007; and
 - (ii) the Tiger Airways incident, en route from Mackay to Melbourne, on 18 May 2009;
- (i) how reporting processes can be strengthened to improve safety and related training, including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010;

...

Summary of the ATSB Position

A summary of the ATSB's position in relation to the Terms of Reference is as follows:

- the ATSB has no evidence to support a systemic problem in the aviation industry with accident and incident reporting;
- the problems with reporting associated with the Jetstar and Tiger Airways incidents were not of a nature evidencing a need for the amendments contained in the Transport Safety Investigation Amendment (Incident Reports) Bill 2010;
- The amendment in the Bill which would make it an offence to 'influence' someone with respect to their reporting responsibilities is likely to already be addressed by provisions of the *Criminal Code Act 1995*;
- The amendment in the Bill which would provide a blanket immunity to aviation professionals who report accidents and incidents poses a danger to safety by preventing appropriate safety action from being taken;
 - In the interests of achieving international best practice, the ATSB's preference is for any legislative changes to be informed by work which is about to commence in the International Civil Aviation Organization on the Standards, Recommended Practices and Guidelines for sharing and using sensitive safety information;
 - If the Committee deems that it is necessary to make a legislative change at this point, the Inquiry may consider replacing the blanket immunity amendment in the Bill with an amendment which would provide protection from disciplinary action, but only in relation to act of a person complying with their reporting responsibilities (it's recommended that the aviation, marine and rail modes of transport are consulted on this amendment);
- The United States and European accident and incident systems are prescriptive with respect to the accidents and incidents which must be reported. The ATSB draws the Committees attention to the consultation that the ATSB is currently undertaking with the industry and other interested persons on proposed changes to the list of reportable matters in the Transport Safety Investigation Regulations 2003. Consultation and any proposed changes should be in the interests of improving clarity and building upon the industry's knowledge and understanding of its reporting responsibilities. A copy of the consultation package is available on the ATSB's website at http://www.atsb.gov.au/about_atsb/legislation/tsi-amend.aspx.

Overview of the ATSB

The ATSB is an independent Commonwealth Government statutory Agency established under the *Transport Safety Investigation Act 2003* (TSI Act). A Commission constituted by a Chief Commissioner and two part-time Commissioners are responsible for its functions. 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.

The Bureau is entirely separate from transport regulators, policy makers and service providers. In aviation, this means the ATSB is separate from the Civil Aviation Safety Authority (CASA), the Department of Infrastructure and Transport and airline operators. Through the ATSB's independent status it is better able to avoid conflicts of interest and external interference while carrying out its functions.

Of greatest relevance to paragraphs (g) to (i) of the Terms of Reference for this Inquiry is the way in which the ATSB fulfils its function of safety data recording, analysis and research through the management of mandatory and voluntary confidential accident and incident reporting schemes. As with its accident investigations, the ATSB is not involved in the apportionment of blame or the determination of liability with respect to the receipt of reports under these schemes. The ATSB's no-blame status assures the free flow of essential safety information to the ATSB and is consistent with international standards.

In 2009 – 10 the ATSB received approximately 15 100 notifications through its mandatory accident and incident reporting system (8 393 were classified as safety occurrences). During that period the ATSB had the resources to commence 70 new investigations.¹ Ten safety research and analysis reports were released in this period.²

¹ ATSB, *Annual Report: 2009 – 2010*, ATSB, Canberra, 2010, p.52 (19 of these investigations were desk top investigations where the investigators did not go on-site) (http://www.atsb.gov.au/about_atsb.aspx).

² ATSB, *Annual Report: 2009 – 2010*, ATSB, Canberra, 2010, p.34 (http://www.atsb.gov.au/about_atsb.aspx)

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Part 1: Systems for Receiving Accident and Incident Information and their Purpose

1. Part 1 of the ATSB's submission describes the current reporting schemes and the way in which they interact within the aviation safety system to provide information to prevent future accidents and incidents occurring. To understand how the information can be used in this manner an explanation of the concept of 'safety' is provided as well as a description of the elements of the system which work together to deliver a safe operation.
2. Safety in aviation is viewed as the state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.³ Hazard identification and safety risk management must occur at a number of different levels within the system to ensure that an accident doesn't occur. Figure 1 below shows that accidents occur when the system as a whole is not functioning correctly. The operator (developing organisational processes and setting working conditions), individuals (human error) and the regulator (setting regulations and auditing compliance) all play important roles in preventing an accident.

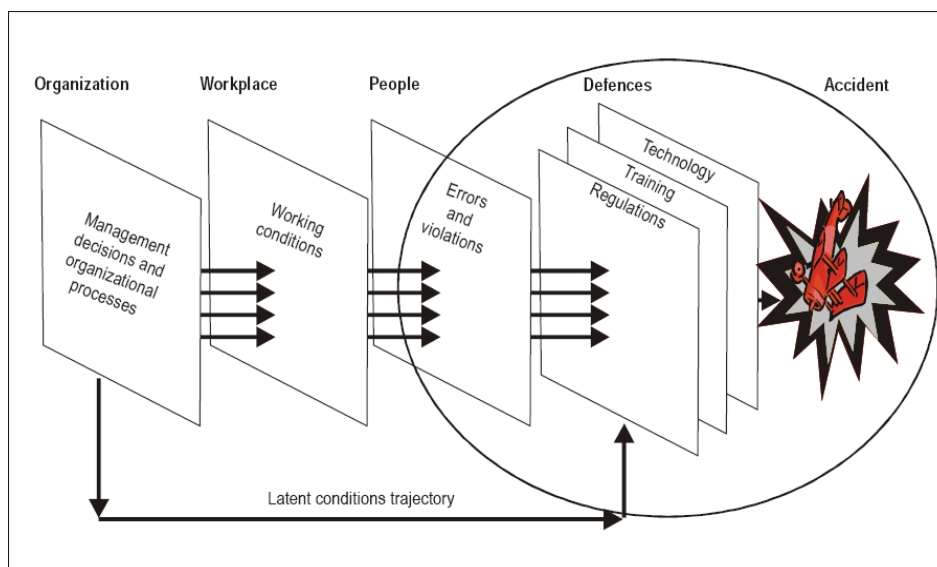


Figure 1: Contributing Factors in an Accident (source: ICAO, Safety Management Manual (Doc 9859 2nd edition), ICAO, 2009, p.2-6)

3. To perform their role in ensuring that the defences work, and that there are no latent conditions present that may contribute to an accident, the operator, regulators and individuals all need access to safety information. Information from accident and incident reporting is an essential source of information which can be used for hazard and risk

³ ICAO, *Safety Management Manual* (Doc 9859 2nd edition), ICAO, 2009, p.2.2.4 (http://www.icao.int/anb/safetymanagement/DOC_9859_FULL_EN.pdf)

identification. In the Australian aviation industry, primary systems exist for the collection and sharing of this information:

- a **mandatory accident and incident reporting scheme** which is managed by the ATSB;
 - a **confidential reporting scheme** which is managed by the ATSB;
 - a **self-reporting scheme which offers limited immunity** for self-reporting of specified breaches of civil aviation regulations (Aviation Self Reporting Scheme (ASRS)) which is managed by the ATSB and CASA;
 - **operators' accident and incident reporting schemes** maintained in accordance with their Safety Management Systems.
 - a **confidential hotline** operated by CASA.
4. The Terms of Reference for the Senate Inquiry and the content of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 (the Bill) raise perceived issues with the operation and interaction of these schemes with the main focus being on the ATSB' mandatory reporting scheme. Part 2 of this submission provides a detailed overview of the mechanics of the mandatory scheme and an explanation of its effectiveness. However, it is important not to focus attention solely on the mandatory scheme as it does not function within the safety system in isolation. An introductory overview of the ATSB, Operator and CASA systems and their inter-relationship and roles is therefore provided for the Committee.

ATSB Accident and Incident Reporting Systems

5. The systems operated by the ATSB provide information which the ATSB is able to use to decide whether or not to conduct a safety investigation in the interests of identifying safety issues which lead to improvements in the system. The ATSB also uses accident and incident information for safety research and analysis for the purpose of monitoring trends and identifying systemic problems across the industry as a whole or in different sectors. The ATSB's investigation and research and analysis reports are all available on-line at <http://www.atsb.gov.au/aviation.aspx>

Mandatory Reporting System

6. The mandatory accident and incident reporting scheme operated by the ATSB is established under the *Transport Safety Investigation Act 2003* and the Transport Safety Investigation Regulations 2003. The scheme meets the requirements of the Annex 13 (Aircraft Accident and Incident Investigation) to the Convention on International Civil Aviation (Chicago Convention)⁴ for mandatory reporting.⁵

⁴ done at Chicago on 7 December 1944

7. 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.
8. Further details of the mandatory accident and incident reporting scheme are available on-line at: <http://www.atsb.gov.au/mandatory.aspx>.

Confidential Reporting Systems

9. 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.
10. The *Aviation Self Reporting Scheme* (ASRS) is operated by the ATSB and CASA. The ASRS is established under the *Civil Aviation Act 1988*⁶ and the *Civil Aviation Safety Regulations 1998*.⁷ Under the scheme, holders of civil aviation authorisations may self-report specified breaches of CASA's regulations⁸ to the ATSB. 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. As with the REPCON scheme, the ATSB is able to use de-identified data for safety research and analysis.
11. Both schemes are consistent with the practices contemplated by Annex 13 to the Chicago Convention for States to establish voluntary and confidential reporting systems.⁹ Further

⁵ Standard 8.1 of Annex 13: "A State shall establish a mandatory incident reporting system to facilitate collection of information on actual or potential safety deficiencies."

⁶ Division 3C.

⁷ Division 13.K.1.

⁸ Eligible contraventions must not involve conduct that was deliberate or fraudulent, or caused or contributed to an accident or serious incident.

⁹ Recommended Practice 8.2 of Annex 13: "a State should establish a voluntary incident reporting system to facilitate the collection of information that may not be captured by a mandatory incident reporting system."

Standard 8.3 of Annex 13: "a voluntary incident reporting system shall be non-punitive and afford protection to the sources of information."

details about the confidential reporting schemes are available on the ATSB's website at: <http://www.atsb.gov.au/voluntary.aspx>.

ATSB Should not be the only Collector and User of Accident and Incident Safety Information

12. The information the ATSB obtains from its mandatory and confidential accident and incident reporting schemes contribute to the national and international body of safety knowledge and fosters action for the improvement of safety systems and operations. However, it is critical that the ATSB is not the only collector and user of accident and incident information.
13. The ATSB does not actually manage the hazards and risks within the aviation safety system. Airline operators and CASA, who do manage them, must also be able to collect, access and use accident and incident information. It's also important that they have the information to conduct research and analysis to identify safety hazards given that the ATSB has finite resources. In 2009 – 10 the ATSB received notification of 8 393 occurrences and had the resources to commence 70 new investigations.¹⁰ Ten safety research and analysis reports were released in this period.¹¹

Operator Accident and Incident Reporting Systems:

14. 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 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.'¹⁴
15. Reporting by employees within an organisation is also a fundamental part of the development of a good working safety culture. Professor Andrew Hopkins states:

¹⁰ ATSB, *Annual Report: 2009 – 2010*, ATSB, Canberra, 2010, p.52 (19 of these investigations were desk top investigations where the investigators did not go on-site) (http://www.atsb.gov.au/about_atsb.aspx).

¹¹ ATSB, *Annual Report: 2009 – 2010*, ATSB, Canberra, 2010, p.34 (http://www.atsb.gov.au/about_atsb.aspx)

¹² <http://www.casa.gov.au/download/orders/cao82/8203.pdf>

¹³ <http://www.casa.gov.au/wcmswr/assets/main/download/orders/cao82/8205.pdf>

¹⁴ ICAO, *Safety Management Manual* (Doc 9859 2nd edition), ICAO, 2009, p.3-14 (http://www.icao.int/anb/safetymanagement/DOC_9859_FULL_EN.pdf)

If ... the promotion of risk awareness among employees goes hand in hand with a commitment to risk awareness at the organisational level, reliable and safe functioning becomes a real possibility.¹⁵

16. 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.¹⁶

CASA Collection and Access to Accident and Incident Information

17. CASA is responsible for developing and promulgating aviation safety standards and monitoring their implementation by the industry. As demonstrated by **Figure 1** on page 5, conditions that may arise through the development and administration of regulations can introduce hazards that can be contributing factors or safety issues associated with an accident. Therefore, CASA, as the regulator, needs to be able to obtain access to accident and incident information that shows the presence of these hazards. In response, CASA is better able to develop standards, educate members of the industry and help to ensure compliance with regulatory requirements designed to guard against those hazards and their consequences.
18. CASA maintains its own confidential hotline, through which information about the occurrence of accidents and incidents is received. CASA may discover accidents and incidents through its surveillance activities, which it carries out pursuant to its functions under section 9 of the *Civil Aviation Act 1988*. However, as the ATSB operates the mandatory reporting scheme for aviation accidents and incidents, CASA must rely heavily on the ATSB as a source of this information. The ICAO Safety Management Manual considers that regulators need access to information about the occurrence of accidents and incidents. With respect to CASA's function in developing standards, effective rule-making needs to be based on principles of safety risk management. Safety risk management for the Regulator involves identifying hazards, assessing the safety risks of the consequences of those hazards and developing regulations that provide acceptable mitigation/control of the consequences of hazards.¹⁷
19. In accordance with the provisions of the Transport Safety Investigation Act, the disclosure of information from ATSB investigations for purposes other than addressing

¹⁵ Andrew Hopkins, *Safety, Culture and Risk: the Organisational Causes of Disaster*, CCH Australia Limited, Sydney, 2005, p.18

¹⁶ *ibid.*, p.19

¹⁷ ICAO, *Safety Management Manual* (Doc 9859 2nd edition), ICAO, 2009, p.6-3 (http://www.icao.int/anb/safetymanagement/DOC_9859_FULL_EN.pdf)

identified safety issues within safety systems is limited – even to CASA – in the interests of preserving the free flow of information to the ATSB. If CASA is concerned to get additional information it can source the information separately in the majority of circumstances through its own processes. However, this is not as practicable with respect to accident and incident reports which the ATSB receives over 15 000 notifications in relation to each year.

20. For this reason the ATSB and CASA are presently considering ways in which CASA can obtain more open access to the ATSB's accident and incident notification information, in order for CASA to enhance its ability to fulfil its functions under the Civil Aviation Act, without compromising confidentiality where it is required. Understandably, providing more open access necessitates the development of appropriate protective mechanisms governing CASA's use of the information it obtains for certain regulatory purposes. In this respect, the ATSB and CASA are cooperating closely in the development of evolving ICAO standards affecting the disclosure of sensitive safety information.

21. Opportunities to improve these processes domestically may take place in conjunction with the consultation that the ATSB is undertaking with the industry and the public on contemplated changes to the list of accidents and incidents that must be reported. A consultation package is available on the ATSB website at: http://www.atsb.gov.au/about_atsb/legislation/tsi-amend.aspx. The circumstances in which, and the extent to which, CASA should be able to access and use accident and incident reports, are matters deserving of close and careful consideration on a balanced, responsible and informed basis.

Part 2: The ATSB Mandatory Reporting System

22. To address paragraphs (g) to (i) of the Senate Committee's Terms of Reference, as well as the proposed amendments in the Transport Safety Investigation Amendment (Incident Reporting) Bill 2010, a more detailed explanation of the ATSB's mandatory reporting system and the industry's compliance with the obligations in the system is provided here in Part 2. However, the explanation provided in Part 1 on the inter-relationship between the mandatory reporting system and other systems that affect hazard identification and risk analysis is recalled. The inter-relationship of the different systems is relevant for the purpose of addressing some of the inferences in the Terms of Reference and the proposed amendments in the Bill.

Mandatory Reporting

23. Part 3 of the Transport Safety Investigation Act provides the framework for the ATSB mandatory reporting scheme contained within the Transport Safety Investigation Regulations. Part 3 places obligations on *responsible persons* to report *immediately reportable matters* (IRMs) (*accidents and serious incidents*) and *routine reportable matters* (RRMs) (*incidents*). The Regulations prescribe the specific *accidents and incidents* that must be reported. They also prescribe who is a *responsible person*.

A Responsible Person

24. Regulation 2.5 lists the following persons as *responsible persons* where there is a reportable matter involving an aircraft:

- (a) a crew member of the aircraft concerned;
- (b) the owner or operator of the aircraft;
- (c) a person performing an air traffic control service in relation to the aircraft;
- (d) a person performing a dedicated aerodrome rescue or firefighting service in relation to the aircraft;
- (e) a person who:
 - (i) is licensed as an aircraft maintenance engineer under the *Civil Aviation Regulations 1988* or the *Civil Aviation Safety Regulations 1998*; and
 - (ii) does any work in relation to the aircraft;
- (f) a member of the ground handling crew in relation to the aircraft;
- (g) a member of the staff of the Civil Aviation Safety Authority;
- (h) the operator of an aerodrome.

What are the Obligations on a Responsible Person?

25. A *responsible person* is required to report to the ATSB IRMs and RRM 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).

26. If it is an IRM, section 18 of the Transport Safety Investigation Act requires the *responsible person* to report as soon as practicable by telephone or another form of telecommunication or radio communication (regulation 5.4). The details that must be provided, to the extent they are within the *responsible person's* knowledge, are contained in regulation 2.5A.
27. Section 19 requires the *responsible person* to follow up on the immediate report of an IRM with a written report within 72 hours. The details that must be provided, to the extent they are within the responsible person's knowledge, are contained in regulation 2.6. For an RRM, the responsible person is only required to provide the written report within 72 hours in accordance with section 19 and provide the details prescribed in regulation 2.6.
28. The ATSB's website at www.atsb.gov.au/mandatory/asair.aspx provides further details about the practical requirements for making a report.

Reporting in Practice

29. The legislative requirements for reporting make crew members (i.e. pilots) and airline operators *responsible persons*. They are both required to report IRMs and RRM to the ATSB. However, one will be excused if they have a reasonable belief that the other will make the report to the ATSB (or some other *responsible person*). This accommodates the necessary practice where the pilot has to make a report to the operator's safety department in accordance with the requirements of the company's Safety Management System. If the pilot has reasonable grounds to believe that the operator will pass on the report in full to the ATSB as soon as practicable, then the pilot is absolved from the requirement to report to the ATSB. If the pilot does not hold this belief, then he or she is not absolved from the requirement to report to the ATSB.
30. The submission at page 8 outlined the need for operators to have accident and incident reporting as a part of its Safety Management System. It is also clear that for the organisation to have an effective safety culture, which can be harnessed to prevent accidents, employees must be encouraged to report directly to the operator with the expectation that the operator will act on that information in the interests of safety. The structure of the transport safety investigation legislation appropriately allows for the operator to take responsibility for developing this culture around accident and incident reporting.

Compliance with the Mandatory Reporting Scheme

31. In 2008 ICAO audited Australia's Civil Aviation System, including its accident and incident reporting schemes. In its report, ICAO advised that the legislation that Australia has in place to establish its schemes, 'address the ICAO Annex 13 provisions and enable the ATSB to effectively conduct or participate in aircraft accident or incident investigations.'¹⁸ The ATSB is able to point to indicators that support ICAO's finding. These indicators cover an increase in reporting since the Transport Safety Investigation Act came into effect on 1 July 2003; identified over reporting by the industry (particularly in the high capacity sector); and lack of evidence from surveillance by CASA that operators are failing to comply with their responsibilities.

Increase in Reporting

32. Since the mandatory reporting scheme in the Transport Safety Investigation Act and Regulations came into effect on 1 July 2003, reporting to the ATSB has grown significantly.¹⁹ In 2003 - 04 the ATSB received approximately 8 500 notifications²⁰ (4556 were classified as safety occurrences²¹). In 2009 - 10 notifications grew to 15 100 (8393 were classified as safety occurrences).²² There has been a steady increase in reporting over the last seven years. Some of this increase is due to the implementation of new tools to make reporting easier, such as through e-mail notifications and Airservices Australia's Electronic Safety Incident Report System.²³ Of the greatest relevance is that the statistics show a strengthening in the commitment to accident and incident reporting over this period by the industry.

33. Importantly, the increase in reported occurrences doesn't represent a decrease in safety as the incidence of actual accidents has been decreasing as shown in the figure below:

¹⁸ ICAO, *Final Report on the Safety Oversight Audit of the Civil Aviation System of Australia (18 to 28 February 2008)*, January 2009, p.11 (paragraph 3.2.15)

(http://www.icao.int/fsix/AuditReps/CSAfinal/Australia_USOAP_Final_Report_en.pdf)

¹⁹ Prior to 1 July 2003 the accident and incident reporting regime was contained in Part 2A of the *Air Navigation Act 1920*.

²⁰ ATSB, *Trends in Immediately Reportable Matters Involving Regular Public Transport Operations*, ATSB, Canberra, 2007, p.2 (http://www.atsb.gov.au/media/29977/b20070107_001.pdf)

²¹ ATSB, *Annual Review 2004*, ATSB, Canberra, 2004, p.37
(http://www.atsb.gov.au/about_atsb/annual_reviews.aspx)

²² ATSB, *Annual Report: 2009 – 2010*, ATSB, Canberra, 2010, p.52
(http://www.atsb.gov.au/about_atsb/annual_reviews.aspx)

²³ ATSB, *Trends in Immediately Reportable Matters Involving Regular Public Transport Operations*, ATSB, Canberra, 2007, p.2 (http://www.atsb.gov.au/media/29977/b20070107_001.pdf)

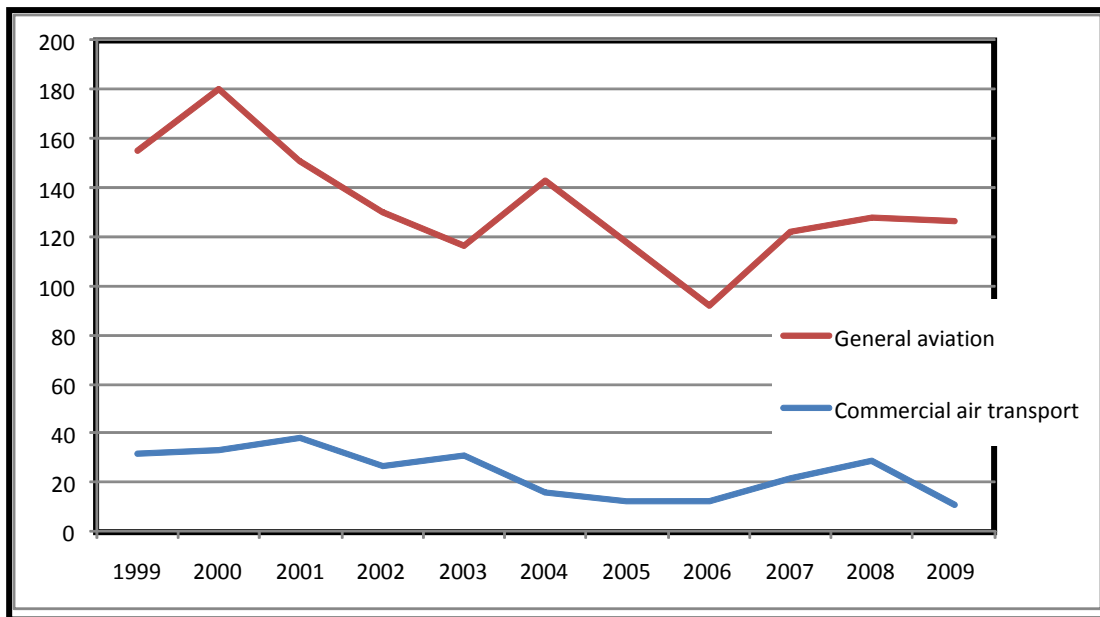


Figure 2: Accidents per Calendar Year. (source: ATSB, Aviation occurrence statistics: 1 January 1999 to 31 December, ATSB Canberra, 2010)

34. Rather than being representative of a decrease in safety, the large increase in the number of reported incidents is more likely to be due to an improved awareness of aviation safety issues, clearer guidelines and legislation on what constitutes a reportable matter (with the introduction of the Transport Safety Investigation Act and Regulations in 2003), and a greater willingness of the aviation industry to report safety incidents.²⁴ In particular, when the Act and Regulations came into force in 2003, the reporting requirements changed by becoming more prescriptive about the actual incidents that must be reported. Prior to this date it was left to the industry to interpret what constituted an incident.
35. Former Part 2A of the *Air Navigation Act 1920* only provided generic guidance as to the meaning of an ‘incident’. Section 19AC of the *Air Navigation Act* defined an incident as: ‘an occurrence, other than an accident or a serious incident, associated with the operation of an aircraft that affects or could affect the safety of the operation of the aircraft or another aircraft.’ Now, under regulation 2.4 of the *Transport Safety Investigation Regulations*, there is a prescriptive list of every incident that must be reported to the ATSB. There is greater clarity for *responsible persons* as to their obligations.

Over Reporting

36. The statistics retained by the ATSB show that there is a trend towards over reporting in the industry. A number of the notifications that the ATSB receives are not classified as safety matters or they are duplicates of reports because multiple *responsible persons* have

²⁴ ATSB, *Australian Aviation Safety in Review: 1998 – 2007*, ATSB, Canberra, 2009, p.47 (<http://www.atsb.gov.au/media/1287834/ar2008079r.pdf>)

reported the same safety matter. From the perspective of demonstrating a robust accident and incident reporting culture in the aviation industry, over reporting is a positive sign.

37. Data that the ATSB has in its accident and incident database shows that from January 2007 to October 2010, the ATSB received approximately 52 000 notifications. Of these 52 000 notifications:

- 58.15 % were classified as safety occurrences
- 26.88% were classified as non-safety matters
- 14.12% were duplicates
- 0.86 % were withdrawn (result of testing & system duplications)

38. The fact that 26.88% of the reports that the ATSB has received over this period have been classified as 'non-safety matters' shows that the industry has been cautious about providing as much information as possible. It suggests that there isn't a systemic issue with filtering reports to the ATSB. The figure of 14.12% for duplicate reporting shows that a number of responsible persons have reported regardless of the likelihood of another responsible person making the report. Again, this is a good thing.

39. The ATSB notes that the Terms of Reference for the Inquiry have raised matters concerning the reporting performance of some of the airlines that operate high capacity aircraft. To assist the Inquiry with understanding the performance of this particular sector, the ATSB has extracted data from reports received since January 2007 for operators of high capacity aircraft. Of the approximately 15 000 notifications received:

- 39.09% were classified as safety occurrences
- 41.48% were classified as non-safety matters
- 16.23% were duplicates
- 3.2% were withdrawn (result of testing, system duplications and errors)

40. The data shows that in this high capacity air transport sector an even more cautious approach has been taken to reporting than the industry as a whole. This is demonstrated by the fact that 41.48% of the reports received from the three airlines were classified as non-safety matters. This very cautious approach to reporting is a positive sign of a healthy safety culture.

Safety Management System Compliance Audits by CASA

41. As noted at page 8 of this submission, operators are required to have in place a safety management system which includes a means of capturing information on hazards and risks. The Civil Aviation Advisory Publication (CAAP) SMS – 1(0): *Safety Management Systems for Regular Public Transport Operations* advises that organisations are required to meet the reporting requirements under the Transport Safety Investigation Act and

Regulations. The information must also be captured by the organisation's own Internal Reporting System.²⁵

42. Under the Civil Aviation Act, CASA has the function of conducting comprehensive aviation industry surveillance, including assessment of safety related decisions taken by industry management at all levels for their impact on aviation safety. Implicit in this surveillance activity is oversight of operators' compliance with their Safety Management System.²⁶ The ATSB has not been advised by CASA of any significant concerns regarding the effective operation of an operator's own Internal Reporting System.

²⁵ CAAP SMS – 1(0): *Safety Management Systems for Regular Public Transport Operations*, January 2009, p.31 (<http://www.casa.gov.au/wcmswr/assets/main/download/caaps/ops/sms-1.pdf>)

²⁶ Paragraph 9(1)(f) of the *Civil Aviation Act 1988*.

Part 3: Jetstar and Tiger Airways Events

43. The Terms of Reference for the Inquiry, and the Transport Safety Investigation Amendment (Incident Reporting) Bill 2010, suggest that events involving reporting issues with Jetstar and Tiger Airways are indicative of systemic problems with reporting of accidents and incidents in the aviation industry. As outlined above, the ATSB does not have any evidence to suggest there are such systemic problems.
44. The two events were referred to in the following ATSB investigations:
- a. an investigation into an occurrence involving a Jetstar aircraft unknowingly descending to within 38 feet of the ground at Melbourne airport while attempting to conduct a ‘Go-around’ in foggy conditions on 21 July 2007 (Jetstar event);²⁷ and
 - b. an investigation into an occurrence involving a Tiger Airways aircraft with flight control system problems en route from Melbourne to Mackay on 18 May 2009 (Tiger Airways event).²⁸
45. Further, the nature of the reporting issues with the Jetstar and Tiger Airways events needs to be clarified given that they have been used as justification for amendments in the Bill to:
- a. make it an offence to ‘influence’ someone with respect to their reporting responsibilities; and
 - b. provide, in effect, legislative immunity for pilots and other flight crew who report on safety matters by making it an offence to impose a penalty on, or deprive a benefit of, anyone who reports.

Jetstar Event

46. The ‘Go-around’ event that the Jetstar aircraft was involved in was initially reported as a routine reportable matter. The crew of the aircraft had reported the matter to Jetstar who then reported the matter to the ATSB (in accordance with acceptable practice). However, the crew had not advised that a warning system had gone off because of the indicated close proximity to the ground. It was therefore the crew, rather than Jetstar, that omitted important information from the initial report.

²⁷ ATSB, *Aviation Occurrence Investigation AO-2007-044: Go Around Event Melbourne Airport, Victoria – 21 July 2007 – VH-VQT, Airbus Industrie A320-232*, ATSB, 2010 (available online at: http://www.atsb.gov.au/publications/investigation_reports/2007/aair/ao-2007-044.aspx)

²⁸ ATSB, *Aviation Occurrence Investigation AO – 2009-021, Flight Control System Event 520km NE of Gold Coast Aerodrome Queensland – 18 May 2009 – VH-VNC, Airbus Industrie A320-232*, ATSB, 2010 (available on-line at: http://www.atsb.gov.au/publications/investigation_reports/2009/aair/ao-2009-021.aspx)

47. Almost two weeks after the incident occurred, Jetstar became aware that the warning system had gone off and retrieved data which showed that the aircraft had come within 38 feet of the ground. This information made it clear that the incident was serious and should have been reported to the ATSB immediately. It wasn't, because Jetstar incorrectly believed that all they were required to do was to make an initial report, not to communicate its changed status. The ATSB only became aware of the seriousness of the event through media reports.
48. 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.
49. Consistent with its discretion, the ATSB did not consider it an appropriate response to refer the legislative breach to the Australian Federal Police (AFP) for a criminal investigation. In this instance, the foremost objective was to achieve future compliance in the interest of safety and this could best be achieved through educating Jetstar on the gravity of the situation. However, should there be future breaches of the legislation; the ATSB would take this previous breach into account in making a decision as to whether to refer the matter to the AFP. In this context the ATSB's approach to enforcement is consistent with that advocated by ICAO in the Safety Management Manual. The Manual states that:
- “Enforcement decisions must be proportional to the identified breaches and the safety risks they underlie, based on two principles:
- (a) [the State] will take action against those who consistently and deliberately operate outside the Regulations; and
- (b) [the State] will seek to educate and promote training or supervision of those who show commitment to resolving safety deficiencies.”²⁹

Tiger Airways Event

50. The Tiger Airways event on 18 May 2009 involved a problem with a hydraulic system that caused the aircraft's left aileron to oscillate. This matter was correctly reported as a routine reportable matter to the ATSB. However, during the ATSB's investigation, the ATSB discovered a previous event of the same nature had not been reported.

²⁹ ICAO, *Safety Management Manual* (Doc 9859 2nd edition), ICAO, 2009, p.11-APP 4-3 (http://www.icao.int/anb/safetymanagement/DOC_9859_FULL_EN.pdf)

51. Again, 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 in the Bill. It appears that Tiger simply (and incorrectly) failed to assess the first incident as reportable. The ATSB took similar action in relation to Tiger Airways as it did with Jetstar. If there are future breaches of the legislation, the ATSB will take Tiger’s previous failure to report into account in making a decision about whether to refer the matter to the AFP, having regard, amongst other things, to the enforcement principles reflected in the the ICAO Safety Management Manual.

Part 4: Impact of the Transport Safety Investigation Amendment (Incident Reporting) Bill 2010

52. As advised, the ATSB does not have evidence from the Jetstar or Tiger Airways events that people with reporting responsibilities were being ‘influenced’ or that they required immunity of the type proposed in the Transport Safety Investigation Amendment (Incident Reporting) Bill 2010 in order to be able to report. In making this statement the ATSB does not assume that there aren’t instances out there involving pressure being placed on certain persons with reporting responsibilities, which may come to the Committee’s attention. However, the ATSB does not believe that the measures advocated in the Bill are an appropriate response.
53. The Bill proposes the following amendments to the Transport Safety Investigation Act:
- New clause 19A(1):** 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.
- New clause 19A(2):** 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.
54. It is likely that the majority of conduct that would be captured under the proposed offence in clause 19A(1) of the Bill for ‘influencing’ someone with respect to their reporting responsibilities, would already be captured under the *Criminal Code Act 1995*.
55. The proposal in clause 19A(2) of the Bill to engineer an immunity for responsible persons by making it an offence for a report being used to ‘inflict any penalty’ on them, or ‘deprive them of a benefit’, when they report an accident or incident, has the potential to prevent an operator from taking essential safety action. Although CASA may be able to raise a defence of lawful authority under section 10.5 of the Criminal Code and take necessary safety action, without being tested, the situation may be uncertain for CASA.
56. Further advice encompassing the ATSB’s concerns about the proposals in the Bill is provided below.

Making it an offence to influence someone with respect to their reporting responsibilities

57. The apparent intent behind the amendment proposed by clause 19A(1) is to ensure accurate reporting. The Explanatory Memorandum to the Bill states:

“there are currently no penalties for altered reports being provided to aviation authorities.”

58. This statement is incorrect. 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.

59. Apart from an adequate offence provision already being provided for in the Criminal Code, there are also other significant problems with interpreting clause 19A(1) as it is currently drafted. For instance, 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.

Making it an offence to impose a penalty on, or deprive a benefit to, anyone who reports

60. The Bill’s proposal to make it an offence to impose a penalty on, or deprive a benefit to, anyone who reports an accident or incident would effectively extend a de facto blanket immunity. This would be dangerous for safety. Legitimately, there are cases where a person’s actions have endangered safety and it is necessary for CASA or the operator to take action, such as suspending a licence, or suspending a person from operational duties, to prevent the situation arising again. 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.

61. There are inherent and problematic ambiguities in the terms ‘penalty’ and ‘benefit’, which could operate in this context to interfere with and impede the advancement of genuine safety-related actions. 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. These are amongst the very issues ICAO will be considering in a review of the relevant international Standards, Recommended Practices and guidance materials which is discussed further at page 24 of this submission.
62. The ATSB is not aware that any other country’s mandatory accident and incident reporting systems provide the kind of blanket immunity proposed in the Bill. Title 49 of the United States *Code of Federal Regulations*³⁰, requires that accidents and certain incidents be reported to the National Transportation Safety Board (NTSB) without immunity being provided to the reporter. Under section 21.3 of the Federal Aviation Regulations³¹ in the United States, certain failures, malfunctions and defects are also required to be reported to the Federal Aviation Administration without an immunity being offered to the reporter.
63. In Europe the European Union has issued EU Directive 2003/42/EC³² on occurrence reporting in civil aviation. Article 8.3 of the Directive states:
- “without prejudice to the applicable rules of penal law, Member States shall refrain from instituting proceedings in respect of unpremeditated or inadvertent infringements of the law which come to their attention only because they have been reported under the national mandatory occurrence-reporting scheme, except in the case of gross negligence.”
64. Article 8.4 of the Directive states:
- “in accordance with the procedures defined in their national laws and practices, Member States shall ensure that employees who report incidents of which they may have knowledge are not subjected to any prejudice by their employer.”
65. By providing what amounts to a blanket immunity, no matter what the circumstances involved in the accident or incident, clause 19A(2) of the Bill distorts the principles underpinning Articles 8.3 and 8.4 of the European Directive that persons should not have inappropriate action taken against them. Clause 19A(2) would prevent legitimate safety action being taken when there has been deliberate, reckless or grossly negligent conduct.

³⁰ Volume 7, Chapter 8, Part 830 (<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=4fad155c4385fb2df3cfd58ac58010df&rgn=div5&view=text&node=49:7.1.4.1.12&idno=49>)

³¹ Volume 1, Chapter 1, Part 21 (http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=c5ecfe189347d5454d99d6260a7489c5&tpl=/ecfrbrowse/Title14/14cfr21_main_02.tpl)

³² <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:167:0023:0036:EN:PDF>

The European Directive does not seek to prevent necessary action being taken in these circumstances.

66. Further, the European Directive does not seek to deal with concerns about inappropriate action being taken by making it a criminal offence in national legislation to prevent enforcement practices being inappropriately applied. In the absence of evidence justifying its necessity, the criminal offence in clause 19A(2) is at best disproportionate to the objective it is presumably designed to achieve.

67. Without any requirement for a criminal offence to require them to adopt the practice, CASA's enforcement policy effectively implements the principle reflected in Article 8.3 of the EU Directive, which requires an appropriate regulatory response to the occurrence of accidents and incidents. Paragraph 2.4.3 of *CASA Enforcement Manual* states:

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.³³

68. 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. Further, as advised at page 7 of this submission, individuals concerned with their exposure to certain kinds of enforcement action may take advantage of the Aviation Self-Reporting Scheme in appropriate cases.

69. The Safety Management System airline operators are required to have under Civil Aviation Orders 82.3³⁴ and 82.5³⁵ also serve to implement the principle of Article 8.4 of the European Directive with respect to prejudicial action being taken against an employee

³³ CASA, *Enforcement Manual* (Version 4.0: November 2009), p.2-3

(http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_91291)

³⁴ <http://www.casa.gov.au/download/orders/cao82/8203.pdf>

³⁵ http://www.casa.gov.au/wcmswr/_assets/main/download/orders/cao82/8205.pdf

who makes a report. A fair and open reporting culture is an integral part of an effective Safety Management System and this includes a clear understanding amongst all 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.³⁶ As noted earlier at page 15 of this submission, the implementation of an operator's Safety Management System is subject to CASA surveillance.

70. Regulatory enforcement and surveillance of the implementation of an airline operators' Safety Management Systems is in CASA's domain, and an issue on which CASA will presumably comment on further. However, as outlined above, in the interests of safety, the ATSB does not believe that clause 19A(2) is an appropriate amendment to make to the Transport Safety Investigation Act. Indeed, to the extent such an amendment would prevent or discourage CASA and operators from taking necessary action in the interests of public safety, which might be characterised as a 'penalty' or depriving someone of a 'benefit', it could be dangerously counterproductive.

Preferable Alternatives to Clause 19A(2) of the Bill

71. If the Inquiry decides the system would benefit from a legislative protection with respect to reporting, then ATSB suggests this protection should be in relation to the act of reporting rather than the content of the report. A provision along the following lines could be included:

“an employer may not take disciplinary action against an employee for the act of the employee in complying with his or her reporting responsibilities under the Act.”

72. As nobody should be punished for complying with their legislative obligations, the insertion of this clause should be acceptable to all. However, in so far as such a provision would affect operators and other responsible persons in the maritime and rail, as well as the aviation, modes of transport, such a proposal should be subject to appropriate consultation.
73. While such an amendment might be reasonably considered, the ATSB's preference at this point 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

³⁶ CAAP SMS-1(0): *Safety Management Systems for Regular Public Transport Operations* (January 2009) (http://www.casa.gov.au/wcmswr/_assets/main/download/caaps/ops/sms-1.pdf).

investigation agencies.³⁷ The task force is expected to be established by ICAO in November 2010.

74. The Task Force will be comprised of a range of technical, legal and safety specialists from States and international and regional aviation organisations (regulatory, professional and industrial). It is anticipated that Australia will play a role in the work of the Task Force, and the ATSB believes it would prudent and advantageous to ensure that any legislative changes of the kind contemplated by the Transport Safety Investigation Amendment (Incident Reports) Bill 2010 are informed by ICAO's work product.

³⁷ See Resolutions of the 37th Session of the ICAO Assembly, Nos 25/1, 27/1 and 27 2, in Reports of the Technical Commission, A37-WP/394 (5 October 2010) (http://www.icao.int/icao/en/assembly/a37/wp/wp394_en.pdf) and A37-WP/388 (4 October 2010) (http://www.icao.int/icao/en/assembly/a37/wp/wp388_en.pdf), respectively, as adopted by the Assembly on 7 October 2010.

Part 5: European and United States Reporting Systems – Improving the Australian Systems

Mandatory Reporting

75. Relevant aspects of the United States and European Reporting Systems have been explained in relation to the immunity provision in clause 19A(2) of the Bill. In addition, it may be noted that the United States and European mandatory systems are prescriptive with respect to the particular accidents and incidents which must be reported. At page 12 of this submission it was explained that the increase in reporting in Australia following the introduction of the Transport Safety Investigation Act and Regulations on 1 July 2003 is likely to be due to the introduction of prescriptive requirements.
76. The ATSB has studied the United States and European systems and believes that further improvements can be made to clarify the list of reportable matters contained in the Transport Safety Investigation Regulations. The European system, for example, classifies occurrences according to the following categories:
- a. Aircraft Flight Operations;
 - b. Aircraft Technical;
 - c. Aircraft Maintenance and Repair;
 - d. Aircraft Navigation Services, Facilities and Ground Services
77. Prior to the establishment of the Committee for this senate inquiry, the ATSB had finalised a package to consult, in appropriate forums, on the prospect of changes to the Transport Safety Investigation Regulations. The purpose of this consultation is to determine whether a categorisation system similar to the European model would assist industry professionals to better identify the matters that need to be reported. The European system breaks the matters down according to the part of the operation in which they are most likely to occur and the sectors in which different professionals work. Giving effect to this proposal, the ATSB has placed documentation on its website suggesting changes to the Regulations at: http://www.atsb.gov.au/about_atsb/legislation/tsi-amend.aspx. Comment is sought by 17 December 2010.
78. Undertaking a period of review, and consultation, on matters that should be reported to the ATSB, also affords the opportunity to discuss with industry representatives and other interested members of the wider community, the information from accident and incident reporting that may properly be provided to CASA. As noted at page 9, the purpose of providing this information to CASA is to advance the demonstrable interests of safety. CASA has critical regulatory and safety-related functions under the Civil Aviation Act for which access to information contained in reports about accidents and incidents may be

essential to the development of regulatory standards, educating member of the aviation industry and, where appropriate, to ensure compliance with the civil aviation legislation. The circumstances in which, and the extent to which, CASA should be able to access and use accident and incident reports, are matters deserving of close and careful consideration on a balanced, responsible and informed basis.

Voluntary and Confidential Reporting

79. The ATSB, as advised at page 7 of this submission, manages REPCON and ASRS which are voluntary confidential reporting schemes. REPCON provides confidentiality to the person who reports and any individual referred to in the report. ASRS is a self-reporting scheme which offers confidentiality and a measure of immunity to a holder of civil aviation authorisations who report their contraventions of specified regulations to the ATSB. In order to ensure that appropriate safety action can be taken, the scheme does not offer immunity for breaches of the regulations that involve deliberate or fraudulent conduct, or that contribute to an accident or a serious incident.³⁸
80. Both REPCON and ASRS provide additional avenues for the collection of important information about accidents and incidents and other safety concerns. The schemes are established in accordance with the recommended practices of Annex 13 to the Chicago Convention. They are also consistent with the principles reflected in Article 9 of the European Directive 2003/42/EC on Occurrence Reporting Civil Aviation for the establishment of voluntary reporting schemes.³⁹ Together, REPCON and ASRS operate in a manner consistent with the objectives of the Aviation Self Reporting Scheme in the United States, which allows for confidential third-party reporting and self-reporting with a measure of immunity. The Australian version of the ASRS was modelled on the United States version of the ASRS and its immunity provisions are similar.⁴⁰

³⁸ Further details about REPCON and ASRS are available on the ATSB's website at: <http://www.atsb.gov.au/voluntary.aspx>

³⁹ A copy of European Directive 2003/42/EC is available on-line at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:167:0023:0036:EN:PDF>

⁴⁰ A description of the immunity offered under the United States ASRS scheme is available on-line at: http://asrs.arc.nasa.gov/overview/briefing/br_6.html