

Civil Aviation Safety Authority Submission to the Senate Standing Committee on Rural Affairs and Transport

Rural Affairs and Transport References Committee

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

Background: the Civil Aviation Safety Authority and its role in the regulation of Australian aviation safety

1. The Civil Aviation Safety Authority (CASA) was established as a statutory authority under the *Civil Aviation Act 1988* (the Act) on 6 July 1995.¹
2. The main object of the Act is to '*establish a regulatory framework for maintaining, enhancing and promoting the safety of civil aviation, with particular emphasis on preventing aviation accidents and incidents*'.²
3. As specified in subsection 9(1) of the Act, CASA's core function is to conduct the safety regulation of civil air operations in Australian territory and the operation of Australian aircraft outside Australian territory by, amongst other things:
 - developing and promulgating appropriate, clear and concise aviation safety standards;
 - developing effective enforcement strategies to secure compliance with aviation safety standards;
 - issuing certificates, licences, registrations and permits;
 - conducting comprehensive aviation industry surveillance, including assessment of safety-related decisions taken by industry management at all levels for their impact on aviation safety;
 - conducting regular reviews of the systems of civil aviation safety in order to monitor the safety performance of the aviation industry, to identify safety-related trends and risk factors and to promote the development and improvement of the system; and
 - conducting regular and timely assessments of international safety developments.
4. CASA also has the following safety-related functions:

¹ Section 8.

² Section 3A.

- encouraging a greater acceptance by the aviation industry of its obligation to maintain high standards of aviation safety; and
 - promoting full and effective consultation and communication with all interested parties on aviation safety issues.³
5. In exercising its powers and performing its functions under the Act, CASA must regard the safety of air navigation as the most important consideration.⁴
 6. Subject to its obligations under the Act to ensure that primacy is given to the safety of air navigation, CASA also has a range of functions and powers under the *Airspace Act 2007* related to the administration and regulation of Australian administered airspace.
 7. CASA implements its obligations under the Act by and through:
 - the *Civil Aviation Regulations 1988* (CARs);
 - the *Civil Aviation Safety Regulations 1998* (CASRs);
 - the Civil Aviation Orders (CAOs); and
 - Manuals of Standards.⁵
 8. CASA publishes a wide range of practical guidance and advisory materials, including Civil Aviation Advisory Publications and Advisory Circulars, to better enable members of the aviation industry to understand and fulfil their safety-related obligations under the legislation. CASA also produces safety promotion materials and conducts safety education seminars throughout Australia.
 9. Consistent with its consultative functions under subsection 9(2) of the Act, and where it is otherwise appropriate to do so, CASA is expressly required to consult with government, commercial, industrial, consumer and other relevant bodies and organisations, including the International Civil Aviation Organization (ICAO) and bodies representing the aviation industry in the performance of its functions and the exercise of its powers.⁶

³ Civil Aviation Act, subs. 9(2).

⁴ Civil Aviation Act, subs. 9A(1).

⁵ As part of the regulatory reform process, the CARs are being progressively replaced by the CASRs. More detailed technical requirements under the CARs (and in some cases, under certain provisions of the Act) appear in the CAOs. Where such detailed requirements are required under the CASRs these appear in corresponding Manuals of Standards.

⁶ Civil Aviation Act, s. 16.

10. Accordingly, CASA has in place a range of consultative mechanisms that allow for the development of open and informative exchanges with the aviation industry and other interested parties. These mechanisms span the gamut of CASA's regulatory activities. Examples of such consultative forums include:
- The *Standards Consultative Committee* (SCC), which was established by CASA to bring together CASA technical experts and representatives from a diverse range of aviation industry groups to work jointly during the development and consultative phases of regulatory material. Aviation community experts nominated by the SCC work together with CASA staff in subordinate groups (SCC sub-committees, project teams and working groups) on the detailed development of new and amended regulatory material. The SCC is currently comprised of 39 organisations and industry groups. There is a combined total of over 200 CASA and industry participants in the SCC and its six sub-committees.
 - The *Regional Aviation Safety Forum* (RASf), which was established to invite and encourage the discussion of important safety-related issues facing aviation in regional Australia. The RASf's agenda includes issues involving access to CASA services and staff, safety reporting and surveillance, application of the safety regulations, safety education, airspace management and aerodrome operations. RASf membership currently includes 13 aviation organisations.
 - The *Flying Training Panel* (FTP), is an industry chaired panel designed to provide CASA with strategic advice on flying training matters. The panel consists of five industry members, a representative from the Royal Australian Air Force and Recreational Aviation Australia and three CASA staff members.
 - *Regional Airspace and Procedures Advisory Committees* (RAPACs) are established in each State and Territory and are managed by the Office of Airspace Regulation (OAR). The committees provide a forum for all airspace users to discuss airspace issues and procedures with particular focus upon local matters. Meetings are held two or three times annually at Capital location and the regional centres of Cairns, Launceston and Broome on a programmed basis.
 - *Airspace Consultative Forum* (ACF) is convened by the Office of Airspace Regulation (OAR) on a biannual basis and brings together relevant aviation bodies and airlines to review the OAR's activities and discuss future airspace plans and policies.

- *The Australian Strategic Air Traffic Management Group, (ASTRA), is an aviation industry body dedicated to developing an optimum air traffic management system for Australia. CASA is an observer in ASTRA. ASTRA also provides an industry-wide representative forum for developing the industry position on Air Traffic Management matters as the basis for strategic advice to Government, and to coordinate agreed integrated ATM planning, development and implementation effort by all relevant ATM stakeholders.*
11. CASA is required to perform its functions in a manner consistent with Australia's obligations as a signatory to the Convention on International Civil Aviation (Chicago Convention) and any other agreement between Australia and any other country or countries relating to the safety of air navigation.⁷
 12. Australia is a founding and highly respected member of ICAO, and has been re-elected consistently to serve on the ICAO Council (currently made up of 36 member States) since ICAO was established in 1947. CASA officers actively participate in a wide range of specialist ICAO technical panels and working groups which contribute to the development of international aviation standards and recommended practices.
 13. CASA maintains close and constructive relationships with other national and regional aviation safety regulatory authorities on matters of mutual safety-related interest and concern. In conjunction with these relationships, a number of bilateral agreements, arrangements and understandings have been reached establishing mutual recognition of standards, which provide economic benefit to the Australian aviation industry and further serve to enhance Australia's international standing as a 'State of chief importance in air transport'.⁸
 14. Australia's aviation safety system is routinely and periodically subject to close, critical scrutiny. Aspects of CASA's operations are subject to assessment by the Australian National Audit Office, routine parliamentary oversight and periodic parliamentary inquiries (including the instant inquiry). CASA is also audited by ICAO pursuant to the Universal Safety Oversight Audit Programme, and quite recently by the United States Federal Aviation Administration (FAA), under the FAA's International Aviation Safety Assessment program. CASA performance has consistently received

⁷ Civil Aviation Act, s. 11.

⁸ The 36-member ICAO Council is divided into three parts. The first part consists of States of chief importance in air transport, the second part consists of States not already elected in the first part but which make the largest contribution to the provision of facilities for international civil air navigation, the third part consists of States not elected in either the first or the second part, and whose designation ensures that all major geographical areas of the world are represented on the Council. Australia was re-elected in the first part at the 37th Session of the ICAO Assembly in October 2010.

favourable recognition in these exercises, coupled with the provision of useful advice about where improvements can be made.

15. The Committee should note that, although it has, and diligently performs, the function of cooperating with the Australian Transport Safety Bureau (ATSB),⁹ CASA has no direct responsibility for the investigation of aviation accidents or incidents, which is a primary function of the ATSB under the *Transport Safety Investigation Act 2003* (and an obligation of Australia pursuant to Annex 13 to the Chicago Convention).
16. The Committee should further note that CASA has certain specified functions conferred on it under the *Civil Aviation (Carriers' Liability) Act 1959*, and a very limited set of functions (related specifically to matters concerning the issue, suspension or cancellation of certain security designated authorisations) conferred on it under the *Aviation Transport Security Act 2004*.¹⁰

CASA's responses to particular matters referred to the Rural Affairs and Transport References Committee

(a) pilot experience requirements and the consequence of any reduction in flight hour requirements on safety

17. There are four issues to consider in this regard, the first three of which, as mentioned below, reflect explicit legislative requirements:
 - the minimum experience (flight hours) and knowledge standards specified in the CARs for the purposes of gaining various pilot licences and any additional ratings that may subsequently attach to a licence;
 - the minimum periodic currency standards specified in the CARs to ensure the holder of a licence or rating maintains the proficiency necessary to safely continue to exercise the privileges of a licence or rating;
 - the regulatory requirement for airlines¹¹ to have in place a training and checking system; and

⁹ Civil Aviation Act, para 9(3)(a).

¹⁰ Civil Aviation Act, paras 9(3)(b) and 9(3)(cb).

¹¹ An **airline** is defined in the CARs to mean 'the operator of a regular public transport service'. CAR 2(1).

- any additional experience requirements, often expressed in terms of a total number of flying hours, which employers may set as a minimum entry level to a particular airline.
18. CASA is responsible for setting the minimum requirements for flying experience and knowledge standards necessary for gaining Australian pilot licences and endorsements and ratings that may attach thereto. In setting these standards the Australian licensing system has been aligned with the Standards and Recommended Practices (SARPs) specified in Annex 1-- Personnel Licensing--to the Chicago Convention. Minimum ongoing currency standards are also set by CASA.
 19. Australian licensing standards are also broadly in line with those of Europe, New Zealand, the United Kingdom, and (with some differences outlined in following sections) the United States.
 20. The CARs set out explicit requirements with which pilots must comply and standards they must achieve in order to gain, and continue to exercise the privileges of, a Commercial Pilots Licence (CPL) or an Air Transport Pilot Licence (ATPL)—the basic qualifications for co-pilot and pilots in airlines respectively. An extract of the CARs governing Commercial Pilot (Aeroplane) Licences and Air Transport Pilot (Aeroplane) Licences are attached (see Attachments A and B, respectively).
 21. A flow chart outlining pilot training pathways is also attached (see Attachment C). It should be noted that, while the minimum flight hours required for gaining a CPL is 150 hours, a pilot joining an airline at the CPL level of experience would be required to hold either a Co-pilot or Command Instrument Rating and to undergo training to obtain an aircraft type rating followed by a period of airline operations training. A pilot so qualified would hold the position as co-pilot and would fly with a captain designated as the pilot-in-command.
 22. To become a pilot-in-command (PIC) in an airline, the pilot needs to be qualified according to the requirements of the CARs, which specify that, for aeroplane operations, he or she must:
 - hold an ATPL;¹²
 - have at least 1,500 hours of flying experience;
 - have passed the required theory examinations;

¹² Unless the aircraft is an aircraft that may lawfully be flown by a single pilot, in which case only a CPL is required. See CAR 5.105.

- hold a Class 1 medical certificate;
 - hold a command (multi-engine aeroplane) class of instrument rating (CIR-M/E);
 - hold a command endorsement (type rating) for the specific aircraft type; and
 - have successfully completed induction and flight operations training contained in the operator's CASA approved training and checking system.
23. To become a co-pilot in an airline, the pilot also needs to be qualified according to the requirements set out in the CARs, which specify that he or she must:
- hold at least a CPL;
 - have at least 150 hours flying experience if training is fully integrated or 200 hours if training is not fully integrated, to attain the CPL;
 - have passed the required theory examinations;
 - hold a Class 1 medical certificate;
 - hold at least a co-pilot (aeroplane) class of instrument rating;
 - hold at least a co-pilot endorsement for the specific aircraft type; and
 - have successfully completed induction and flight operations training contained in the operator's CASA approved training and checking system.
24. In order to exercise the privileges of a pilot licence and any attached rating, such as, a command instrument rating (CIR), on an ongoing basis, pilots must fly a legislatively mandated number of flight hours in a specified period¹³, as well as meeting similarly legislated requirements to fly in instrument conditions and conduct approaches using particular instrument

¹³ See CAO 40.1.5 for an example of ATPL recent experience requirements.

approach aids.¹⁴ Compliance with these legislated, periodic requirements ensures pilots retain proficiency.¹⁵

25. All airlines are required to have an internal training and checking organisation that not only inducts and trains pilots as and after they join the organisation, but also conducts ongoing proficiency training and assessment for each of its pilots.¹⁶ Pilots must undergo at least two proficiency checks in each calendar year.¹⁷
26. CASA approves and audits the training and checking organisations of every airline, and conducts observation flights to establish whether the system is functioning effectively and crews are performing to the required standard.
27. While the regulatory framework for the attainment of pilot licences and ratings, and ongoing periodic currency and proficiency checking requirements, are described in paragraphs 18 to 25 above, airlines frequently set a minimum number of flight hours for pilots seeking employment that is above the regulatory licensing minimum. As market conditions fluctuate airlines may vary this self-imposed requirement. However, if complied with, the regulatory standards set by CASA ensure safe and internationally recognised minima for the operation of Australian registered aircraft by airlines.
28. CASA has no intention of reducing the minimum flight hour requirements for gaining Australian flight crew licences, nor are there any plans to reduce the currency and proficiency standards.

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

29. The question here revolves around whether the initial flying training system, coupled with the requirement for an internal training system within an airline, produces pilots of the required standard to enter airlines following the award of a licence, or whether a mandatory level of additional flight experience is necessary to achieve a perceived level of safety.

¹⁴ See CAO 40.2.1:11 for an example of Command Instrument Rating recent experience requirements

¹⁵ the Committee may find it instructive to examine the Part 40 series of the CAOs, where it can be seen that recent experience requirements are a standard feature holders of a variety of pilot licences are obliged to meet.

¹⁶ See CAR 217.

¹⁷ See CAR 217.

30. Australia's approach to initial pilot training combines a rigorous competency-based flying training program with the specification of a required minimum number of flying hours (see paragraphs 22 and 23 above). This approach recognises the need to ensure competency while at the same time acknowledging that the exposure gained by flying experience is also an important factor in developing piloting skills. The minimum number of hours required to obtain a qualification (such as a private pilot licence) is generally set by ICAO and, in practical terms, provides a degree of confidence that a person with the prescribed number of hours of training and experience has acquired the skills needed for the award of a licence.
31. The progressive development of competency and its objective assessment against a published set of competencies and performance criteria is the basis for all Vocational Education and Training (VET) conducted in Australia, under the auspices of the Australian Quality Training Framework (AQTF).
32. Competency based training focuses on the training and objective assessment of skills, knowledge and behaviours based on a set of published units of competency which has the performance criteria specified. Competency based training relies on a criterion-referenced approach to assessment and is transparent to students, instructors and examiners because the units of competency, performance criteria and acceptable range of variables are clearly articulated in the Day Visual Flight Rules (VFR) Syllabus for aeroplanes and helicopters. Not uncommonly, some training sequences must be repeated before a student can advance to the next phase or be recommended for a flight test. Minimum flight hours specified in the regulations act as a safety net and reflect the minimum time at which a person may be expected to be competent. Many individuals require more than the minimum flight hours to reach the level of competency specified in the CASA standards.
33. In Australia, the competencies for pilot licensing have been in place for almost two decades. The national qualifications standards for pilot qualifications have since been developed, by the Transport Industry and Logistics Skills Council (TLISC) and reflect those previously developed by CASA. The competencies relate primarily to piloting skill. Importantly, however, they also include skills in crew team work, human factors and decision-making. New competencies have been designed to support the flight instructor rating and airline pilot qualification. This approach focuses on the capability of the trainee to apply knowledge and skills in an integrated manner when flying an aircraft.
34. Experience-based flying training is based on the accumulation of a prescribed number of hours for training activities, at the completion of which a flight test is undertaken. Assessment of performance in this context may be less

objective with results being less consistent than the criterion-referenced assessment required by competency based training

35. Completing an arbitrary number of flight hours alone may not necessarily ensure competency to perform a task safely. This was highlighted in the remarks of the Administrator of the FAA, Mr J. Randolph Babbitt, in his statement before the Subcommittee on Aviation of the United States House of Representatives Committee on Transportation and Infrastructure, on 4 February 2010:

'As I have stated repeatedly, I do not believe that simply raising quantity – the total number of hours of flying time or experience – without regard to the quality and nature of that time and experience – is an appropriate method by which to improve a pilot's proficiency in commercial operations... There is a difference between knowing a pilot has been exposed to all critical situations during training versus assuming that simply flying more hours automatically provides that exposure.'

36. Mr Babbitt's statement draws attention to the dichotomy that exists between the establishment of an appropriate system of training and checking that extends from the commencement of a pilot's first training exercises, leading towards the gaining of a licence and, ultimately, through a pilot's career with an airline, and the alternative view that there is a direct correlation between a pilot's total flight hours and his/her skill level. That is to say, the more hours a pilot has the more skilful and competent he or she is.
37. Some support for Mr Babbitt's position can be found in a review of ATSB occurrence data. Twenty-three occurrences investigated by the ATSB since 2001 have identified pilot experience levels as a safety factor. Of these, five of the operations involved co-pilots. Most of these co-pilots had well in excess of 1500 hours flying time (4,618, 5,165, 655, 1,620, 5,026 and 3,491 hours experience respectively)¹⁸.
38. In regard to the Federal Aviation Administration Extension Act of 2010, which requires a minimum of 1500 flight hours before a pilot can act as a crew member in airline operations in the United States, it is important to note the differences between the qualification for co-pilots in Australia and the United States. For domestic flights conducted within the United States, co-pilots are not required to hold a type endorsement for the aircraft being operated and receive only the training the operator deems necessary to perform the co-pilot duties. For international operations, the co-pilot must be fully qualified, and must hold an aircraft endorsement, as this is an ICAO requirement. The

¹⁸ Derived from ATSB occurrence data. The events involving co-pilots with 4,618 hours and 655 hours were in low capacity air transport operations. The events involving pilots with 5,165, 5,026 and 3,491 hours involved high capacity air transport operations.

minimum standards for an Australian co-pilot have been described in paragraph 23 above.

39. There is also a significant difference between the approach taken to basic flying training in Australia and the United States. In the United States, basic training can be conducted by flight instructors working independently of a flying school with very limited regulatory oversight. For the most part, however, professional licence training is conducted by training organisations approved under Part 141 or Part 142 of the United States Federal Aviation Regulations (FARs) If the flight training is conducted by a FAR Part 142 organisation, the FAA grants a reduction in the minimum number of flying training hours required.
40. In Australia, all flying training for CASA issued licences must be conducted by the holder of an Air Operator's Certificate which authorises flying training
41. A further distinction between the training philosophies adopted by Australia and the United States is that competency based training principles are not the foundation of a large portion of flying training conducted in the United States as they are in Australia.
42. Both the United States and Australian regulations require airlines to have, as part of their organisational capability, a training and checking organisation, the task of which is to ensure that crews are properly trained and remain proficient to fly as pilots in airline operations. While the objective of these systems is similar, it is CASA's view that aspects of the United States training and assessment requirements are less rigorous than those required by CASA in relation to the training and checking of Australian airline pilots.
43. Australian airlines have traditionally set a minimum number of flight hours, for pilots aspiring to airline positions that is above the regulatory minimum requirement for the issue of a CPL or an ATPL. The preferred number of flight hours has varied over time according to the availability of pilots with the prescribed minimum flight time. However, this has not been a universal recruitment path. Some airlines operate a cadet pilot scheme that sees recruits trained *ab initio* to CPL standards, with ATPL theory examination passes, following which these pilots are employed in co-pilot or second officer positions. This process has had a long history in Australian aviation and, provided there is an appropriate ongoing training and development system in place, there is no evidence to suggest that this approach has resulted in any diminution of safety standards.
44. Therefore, it is unclear to CASA what, if any, safety issues would be addressed in Australia by increasing minimum hour requirements for co-pilots to an arbitrary 1500 hours. Although it is possible to infer that, if such a standard were imposed during periods of airline expansion when the supply

of pilots with the mandated 1500 hours flight time might be limited, then the development of air services in Australia could be curtailed by this constraint.

45. Looking to the future, under the proposed new regulations, Australian flight training operators will be approved under CASR Part 141 to conduct training for the issue of a licence, rating or endorsement to the competency standards to be specified in the MOS for CASR Part 61 (Flight Crew Licensing). This MOS has been in development for a number of years. It specifies competency standards for all flight crew qualifications and reflects the standards developed by the Transport Industry and Logistics Skills Council (TILSC) in consultation with industry and CASA.
46. The proposed regulations recognise that both aircraft captains and co-pilots should receive equivalent training and demonstrate the same essential levels of proficiency to achieve safety of flight operations. Consequently, the introduction of CASR Part 61 will introduce the requirement for co-pilots to also hold command instrument ratings and command aircraft endorsements (type ratings) and to be assessed against the same standards applicable to aircraft captains.
47. As a means to further improve flying training and the oversight of flying training activities, CASA has established a Flying Standards Branch, which is responsible for practically assessing pilot proficiency standards, overseeing pilots that have been appointed as Approved Testing Officers (ATOs) and assisting the flying training sector. The Flying Standards Branch includes a Flight Training and Testing Office (FTTO). Several initiatives and programs are in place or under development including those mentioned below.
 - A Professional Development Program for ATOs—This is a compulsory program for ATOs conducted on a two year cycle. The key objective of the programs is to improve safety through improved standards and standardisation of the:
 - assessment of pass/fail standards;
 - conduct and sequence of flight tests; and
 - expected behaviours of ATOs as delegates of CASA.
 - Publication of the Approved Testing Officer Manual (ATOM)—This manual provides practical flight testing guidance to ATOs. The manual supports the standardisation of flight test conduct as an intrinsic element in improving the safety of aviation through the consistent assessment of applicants pursuing flying qualifications.
 - Conduct of industry flight tests—the FTTO commenced conducting the majority of initial issue flight instructor rating tests (aeroplane and helicopter) in June 2008. The fail rate was initially around 57 percent. After 12 months the fail rate had dropped to 35 percent and now stands

at approximately 24 percent. This represents a significant improvement in the standard of flight instructors as flying schools implemented improvements to training to address identified deficiencies.

- Development of guidance material in the form of a Civil Aviation Advisory Publication (CAAP) for the conduct of flight instructor rating training. The CAAP pertaining to aeroplane flight instructor ratings is nearing completion and provides detailed guidance on the content of the training course linking the legislative requirement, the Day Visual Flight Rules (VFR) Syllabus and the associated competency elements. Following the publication of the CAAP for aeroplane flight instructor ratings, CAAPs will be developed for helicopter and balloon flight instructor training. Industry consultation has indicated strong acceptance for the CAAP.
 - A revised and expanded CAAP addressing the multi-engine aeroplane operations and training is under review following amendments resulting from ATSB findings from recent accidents.
 - A Flight Test Notification System (FTNS)—In February 2009, the FTNS was introduced providing a national standardised system for general aviation ATOs to notify CASA prior to the conduct of a flight test (a legislative requirement). The FTNS permits data capture and analysis capability to track pass/fail results, common fail items and performance of ATOs and flying training organisations. This data can be used to provide feedback to industry and target CASA education programs. This will provide CASA with the ability to monitor pilot proficiency standards and ATO/ check Pilot activity rates in the air transport sector.
 - Conducting a formal training and assessment course for ATO applicants as a means of improving the standard of new ATOs and streamlining the application process.
 - A comprehensive review of the training records for all airline level pilots—This initiative pre-dates a similar action taken by the FAA and, being well advanced, will provide the baseline data from which CASA can develop any intervention strategies necessary to improve training outcomes in the airline environment.
48. In light of the foregoing, CASA is of the view that Australia's basic pilot licensing system meets or exceeds ICAO requirements and produces pilots equipped to move safely and competently into the airline environment. Similarly, the mandated training and checking system required of airlines, when properly designed to meet the airline's operational and human capital environment, provides an ongoing training and proficiency checking outcome that helps to ensure high safety standards.
49. CASA acknowledges that the accumulation of flight time above the regulatory minimum standard will give pilots continued exposure to a range of different situations. However, there is no conclusive data to support the view that the

arbitrary application of a specified number of flight hours will, of itself, provide a substantial improvement in what is already a very safe system.

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

50. Industry recruitment practices are a matter for industry operators and, beyond ensuring that crews are appropriately trained, qualified and licensed, this is not an area in which CASA may properly become involved. CASA is the safety regulator and has no authority to intervene in affairs that are essentially matters of industrial relations.
51. Industry recruitment practices are not static and vary with employment market conditions. CASA is aware that, operators may, in certain circumstances, be inclined to set entry-level requirements (including, amongst other things, the number of flight hours an applicant may have accrued) in ways that may operate as a barrier to entry. Thus, for example, an airline operator may choose not accept an applicant with fewer than, say, 2000 flight hours. Or it may set a company policy requiring co-pilots to possess an ATPL. CASA is also aware that, as the air transport sector has expanded and the demand for pilots has increased, operators have set lower total flying experience requirements as an entry requirement. However, no operator may put a pilot into a position who does not meet the applicable minimum regulatory standards.
52. CASA's safety role is to ensure that the individual airline training and checking systems are structured and function at the necessary level to accommodate any shift in training needs. CASA audits airline training and checking systems.
53. As a means to create a steady supply of pilots, some operators have established cadet pilot training programs. Graduate pilots from these programs are inducted into each airline and trained to become airline pilots. Cadet pilot programs have been in existence for many years.
54. Looking at practices overseas, it can be seen that some countries, such as the United Kingdom, for example, have for some time been inducting newly licensed pilots into airlines with no apparent degradation of safety. It is important to note, however, that the training and checking organisations of these operators are established and structured accordingly.
55. CASA interprets 'pay-for-training' to mean that pilots employed by (or seeking employment with) an operator, are required to pay for their own aircraft type endorsements.

56. Pay-for-training schemes have been in existence internationally for many years and there is no evidence to suggest this has had any detrimental effect on safety. This approach has been used by low-cost European operators for some time, and has become the norm in certain sectors of the Australian market.
57. Prior to the introduction of low cost operators into the Australian market, it was normal for airlines to pay for the type endorsement of their pilots, from the time they joined the company and as they progressed from type to type within a company. At the airline level in Australia, this practice is occurring far less often today than it once did.
58. Training for some type endorsements, particularly on large and complex aircraft types, is simply not available in Australia. Technical training schools and flight simulators for large transport category helicopters, for example, are generally located overseas. These organisations train to a high standard and are established by manufacturers and other professional training companies to provide licence-level technical training for pilots (and engineers). Subject to an assessment and the issuance of an approval, CASA accepts training done at these establishments.

(d) retention of experienced pilots

59. CASA has no direct responsibility or authority to ensure the retention of staff by airlines. Competition for new and experienced personnel in aviation is market driven.
60. CASA has certainly seen evidence, however, of the difficulties faced by operators in the General Aviation (GA) sector, in relation to the retention of experienced pilots, which would appear to be the result of experienced GA pilots, primarily with commuter, charter or instructional backgrounds, being recruited into airlines as these organisations expand.
61. CASA is cognisant of the potential effects this draw on personnel may have on the safety of operations in the GA industry and has adjusted its oversight of individual operators and sectors of the industry accordingly by increasing surveillance where appropriate and providing increased and targeted educational support through CASA's Safety Education Branch. The migration of experienced pilots to the air transport sector means that CASA has been required to ensure that standards are complied with, particularly by chief flying instructors, chief pilots, and CAR 217 (training and checking) approval holders in the low capacity regular public transport sector. The Flying Standards Branch has developed a course for prospective chief flying instructors designed to make them aware of their legislative responsibilities and to better prepare them for CASA's assessment of their application.

62. CASA has not reduced, nor will it reduce, relevant safety standards, however; and cognisant of the potential safety implications of this draw on pilots from the GA sector, CASA has taken certain steps to mitigate the effects of these developments, including:

- increased guidance for chief flying instructors and chief pilots;
- specifically targeted surveillance of the sector;
- efforts to improve flying standards, particularly those in the flying training segment, via the programs and initiatives of the Flying Standards Branch; and
- significant investment in industry safety education, promotion and training.

(e) type rating and recurrent training for pilots

CASA's role with regard to aircraft type endorsements and the training and checking of pilots

63. The sheer size of the training and checking task across the Australian aviation industry prevents CASA from performing all of the tasks necessarily involved in those processes. As the safety regulator, it is CASA's role to set the standards for aircraft type endorsements and the training and proficiency checking of flight crew. This is accomplished by:

- specifying appropriate standards in the legislation;
- publishing appropriate guidance material;
- assessing and approving the training and checking organisations of airline operators and other operators CASA determines require a training and checking organisation;
- assessing and approving industry personnel involved in the provision of training for the purposes of issue of aircraft type endorsements;
- periodically re-assessing the proficiency of personnel involved in airline training and checking functions;
- conducting surveillance of flight operations and training and checking pilots;
- assessing and approving candidates for chief pilot positions; and
- periodically re-assessing chief pilots.

The need for agreed and correct terminology

64. It is important to understand that terms used in the civil aviation legislation have particular meanings. These need to be understood and used correctly and consistently when discussing regulatory requirements.
65. Firstly, the current legislation refers to aircraft qualifications as *endorsements* not *type ratings*. An endorsement may be either a type or class endorsement with a class endorsement grouping variants of aircraft with common characteristics and performance. While the term *type rating* is used internationally, it is not a term that is currently used in the Australian regulatory context. Implementation of CASR Part 61 will see the introduction of the term *type rating* for each multi-crew certificated aircraft and other single pilot aircraft types that CASA believes will require specific training in the interests of safety.
66. Secondly, although the term *recurrent training* is often used, it is also not a term found in the Australian civil aviation legislation. Currently, the term *training* is used to describe training undertaken (or required) for a specific purpose, such as training for the purpose of gaining an aircraft endorsement or licence. *Testing* may be similarly understood in terms of the purpose for which it is conducted. For example, testing undertaken for the purposes of the issue of a command instrument rating.
67. Within an airline *training and checking system*, a pilot will be proficiency checked; that is a specific proficiency will be assessed by the operator, such as the pilot's proficiency to operate a company aircraft on line operations (the line check). Within a training and checking organisation an operator may also provide its pilots with the opportunity to periodically practice emergency flight manoeuvres that would not be encountered during normal operations. Personnel employed by the airline may have previously received training conducted by a number of different providers or been issued qualifications on the basis of foreign licence qualifications. An airline training and checking system must determine a person's competency to perform their duties to the standards expected of the airline and in compliance with CASA regulations

Type endorsement training

68. CAO 40.1.0 specifies in considerable detail the processes involved in obtaining a type endorsement. While CAO 40.1.0 contains detailed information about type endorsements, reference to the 40 series of the CAOs may provide the Committee with a broader appreciation of specifications for such matters as proficiency testing and the syllabi for various type endorsements.
69. Type endorsement training can be conducted by airlines, specialist approved training organisations, ATOs or qualified flying instructors. CASA has in place

mechanisms by which it recognises pilot training done overseas at the facilities of aircraft manufacturers and other specialised training organisations.

70. Following a pilot's successful completion of the CASA approved course of training and proficiency assessment, conducted by a flight instructor or CASA approved person, the endorsement is entered into his or her logbook and recorded in CASA's licensing data base. The issue of the endorsement is on the basis that the person can safely operate the aircraft as pilot in command or co-pilot as applicable.

Training and proficiency Checking

71. At the airline level, and in other cases where CASA deems it appropriate, operators are required, under CAR 217, to have in place a CASA approved training and checking organisation. Responsibility for this function falls to the operator's identified 'head of the training and checking part (if any) of the organisation'.¹⁹
72. The training and checking organisation, which is common to airline level operations throughout the world, is the mechanism by which pilots are:
- inducted into an airline;
 - trained in the airline's operations before being released to unsupervised line operations;
 - trained on any new procedures or equipment;
 - endorsed on company aircraft (if the company conducts its own endorsement training);
 - checked for continuing proficiency at least twice per year; and
 - tested for the re-issue of Command or Co-pilot instrument ratings on an annual basis.
73. Various CASA-approved approaches are employed in training and checking organisations to achieve the outcomes mentioned above. One variation is to put in place an approved cyclic training program, which allows progressive assessment and checking of competence on a continuing basis over 3-4 training sessions per year.
74. The legislation also requires that written records are made of each training and checking event for each pilot. These records provide a comprehensive history of a pilot's training and continued proficiency history. As part of a quality assurance initiative, CASA is currently conducting a comprehensive

¹⁹ Civil Aviation Act, para 28(3)(d).

review of the records held by all CAR 217 Training and Checking organisations.

75. Specialised training and checking pilots are appointed within each training and checking organisation. These individuals are assessed and approved by CASA and their proficiency in these roles is checked periodically by CASA Flying Operations Inspectors (FOIs).
76. For operators of smaller aircraft that are not subject to the provisions of CAR 217, the responsibility for maintaining flying standards falls to the chief pilot. The responsibilities of a chief pilot in such cases are set out in the CAOs, and include:
 - monitoring operational standards and maintaining training records and supervising the training and checking of flight crew of the operator; and
 - conducting proficiency tests in the execution of emergency procedures and issuing any required certificates of proficiency.²⁰
77. Chief pilots are assessed and approved by CASA.²¹ CASA also conducts regular audits of operators, during which training records and standards are checked.
78. With the adoption of new CASR Parts 119, 121, 135, 133 and 142 in the future, requirements related to type endorsements and the training and checking of pilots by the operator will appear in those parts.

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

79. 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. The employment of emerging technologies has been one way in which industry has met the challenges it faces.

²⁰ See CAO 20.11.

²¹ See Appendix 1 to CAO 82.0

80. What is evident is that the demand for aviation services in Australia has expanded significantly and with this has come corresponding demands on both the industry and CASA. For example, major and continued expansion of the offshore oil and gas industry had created high demand for helicopter services. Over some years there has also been an ongoing growth in the airline sector in both the high and low capacity segments, a proportion of which has been driven by the demand to support the expansion in the resources sector. At the same time certain segments of the industry are dealing with an aging fleet and its associated support.
81. In all sectors of the aviation industry, however, the purchase of new equipment invariably brings with it the acquisition of newer technology. This is evident in the GA sector, where, for example, a Cessna 172, an aircraft widely used in the training environment, now comes equipped with the same screen type of instrument display as found in airline class aircraft. At a price approaching \$500,000 in some cases, these aircraft represent a major investment for GA operators, some of whom have substantially re-equipped their fleets with aircraft of this standard.
82. 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. Australia is not unique in this respect, and aircraft manufacturers are predicting major shortfalls of trained pilots if the rate of industry expansion continues.
83. The dimensions of the skilled staff shortage throughout the world can be seen in figures produced at ICAO's Next Generation of Aviation Professionals conference earlier this year, which indicate that, over the next sixteen years, there will be a need for an additional 800 000 new pilots and engineers to keep the international aviation industry functioning smoothly. Boeing predicts that there will be a requirement for an extra 180,600 pilots and 219,900 new technicians in the Asia/Oceania region alone by 2029.
84. 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.
85. In recognition of the need to regulate a growing and increasingly complex industry, the Australian Government has provided CASA with \$89.9 million in new funding which will allow CASA to:

- employ 97 additional safety specialists, safety analysts and airworthiness inspectors and other staff, allowing the organisation to expand its surveillance activities and fulfil its increasingly complex regulatory responsibilities;
 - provide expanded and ongoing training to its staff;
 - make the CASA alcohol and drug testing program a permanent function, which, until the 2010-2011 Budget, had been funded on a temporary basis; and
 - ensure the Office of Airspace Regulation continues to have the resources to properly regulate and administer Australia's airspace.
86. CASA welcomes this additional funding, which will greatly enhance the ability of the organisation to attend to its oversight and expanding regulatory responsibilities.
87. A portion of this additional funding is going towards the recruitment of specialist staff for the Standards Development function. The aviation safety regulations are being re-written and, as mentioned above, the CARs and the CAOs are being updated and consolidated in the CASRs and their corresponding MOSs. This is a demanding task, and considerable additional specialist resources are necessary to complete and to then maintain the rule set into the future.
88. In the short term, and in order to complete the task to hand in the most efficient manner, a taskforce approach has been adopted to facilitate completion of the regulatory reform process. This involves the co-location in the Office of Legislative Drafting and Publishing (OLDP) premises of CASA technical and legal staff and OLDP legal drafters. There are currently 5 OLDP drafters working on CASA's regulations.
89. Regulatory reform has been on-going for several years. CASA expects the new maintenance regulations, as they pertain to airline operations, to be made in November 2010, although further work will be required to extend the regulations to encompass what is now GA and aerial work operations. New CASR Part 90 (Additional Airworthiness Requirements) is also expected to be made in November 2010
90. Legal drafting of about half of the proposed new operational and flight crew licensing CASR Parts has been completed by OLDP and these are now undergoing CASA consultation. This will be followed by extensive industry consultation. It is expected that the remainder of the operational and flight crew licensing CASR Parts will be finalised by OLDP by June 2011.

91. Additional outstanding CASR Parts, including the Sport and Recreational Aviation regulations should be finalised by the end of 2011.
92. In developing the aviation safety regulations, CASA endeavours to:
- give priority to passenger-carrying activities;
 - adopt a risk-based approach;
 - specify safety outcomes where practicable;
 - align with the standards and practices of leading aviation nations, unless differences are required to address the Australian environment;
 - provide for the most efficient allocation of industry and CASA resources;
 - not impose unnecessary costs; and
 - be clear and concise²².
93. CASA is proposing regulations which, in many cases, are formulated in an outcome- or performance-based style, supplemented by acceptable means of compliance and relevant guidance material. This will be reflected in the new maintenance regulations and in aspects of the other CASR Parts.
94. This is a process in which industry has been, and will continue to be, closely involved. Industry consultation and input is key to the success of the regulatory reform program, and it is important to acknowledge the invaluable input the industry provides to the regulatory reform process. However, the practice of the past, where consultation with a view to consensus frequently paralysed action, sometimes for years, cannot continue. Such a stalemate does not assist industry or result in safety benefits. CASA has been clear that consultation does not equate to agreement, and while all views are and will continue to be seriously considered, CASA will still make the ultimate decision on the content of the legislation.
95. In summary:
- The continuing world-wide expansion in demand for aviation services is creating a corresponding demand for industry professionals that is difficult to satisfy.
 - Australia is not isolated from these forces and given the relatively small local pool from which to draw, both CASA and the Australian aviation industry face challenges to recruit the needed numbers of aviation specialists.
 - The Australian government has recognised the need for CASA to increase its numbers in order to be able to oversight the growing aviation industry.

²² See section 2.12.1 of the *CASA Standards Development Manual*, (November 2009).

- The regulatory reform program is progressing and it is anticipated that the major maintenance and operations packages will be completed by the end of 2011, following which these new rules will be implemented throughout the industry.
- In conclusion CASA is well placed to both regulate and prepare safety legislation for the Australian aviation industry.

(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;

Existing protections for reporting safety-related matters to CASA

96. In Australia, primary responsibility for receiving and managing reports concerning matters related to aviation safety rests with the ATSB. It is expected that the ATSB will be making a comprehensive submission to the Committee on the nature and operation of the reporting schemes it administers, and the ATSB itself is best placed to explain the operation of the legislation that underpins those processes.
97. There are currently two legislatively governed 'reporting' schemes administered by CASA: the 'Defect Reporting' scheme under Part 4B of the CARs, and the Aviation Self-Reporting Scheme, under Division C of the Act and Subpart 13.K of the CASRs (the latter of which is administered in conjunction with the ATSB).

Major Defect Reporting

98. In pertinent part, 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*²³ in the aircraft, to report that defect to CASA, as well as to the holder of the certificate of registration for the aircraft.²⁴ 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.²⁵
99. If a person connected with the operation of, or carrying out of maintenance on, an Australian aircraft discovers a major defect of a particularly significant

²³ A *major defect* is defined in the regulations as 'a defect of such a kind that it may affect the safety of the aircraft or cause the aircraft to become a danger to person or property.' CAR 2(1).

²⁴ CAR 51(2).

²⁵ CAR 51(3). If the holder of the certificate of registration for an aircraft becomes aware of a major defect, that person is likewise required to make a report to CASA. See CAR 51(4).

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.²⁶

100. 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
 - permit the assessment of risk levels in the Australian aircraft fleet.²⁷
101. There are no 'immunity' provisions in the civil aviation legislation expressly protecting persons who make reports under the major defect reporting provisions of the regulations from prosecution or other enforcement-related action. As a matter of policy, however, it has been CASA's consistent practice:
- *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.'²⁸

Aviation Self- Reporting Scheme

102. The *Aviation Self Reporting Scheme* (ASRS) is operated by the ATSB and CASA. The ASRS is established under the Act²⁹ and the CASRs.³⁰ Under this scheme, holders of civil aviation authorisations, which would include pilots and other flight crew members, may self-report specified breaches of CASA's regulations to the ATSB.³¹

²⁶ CAR 51A(2).

²⁷ Civil Aviation Advisory Publication, *Defect reports*, CAAP 51-1(1) (June 2001), p. 2.

²⁸ Civil Aviation Advisory Publication, *Defect Reports*, CAAP 51-1(1) (June 2001), p. 9.

²⁹ Division 3C.

³⁰ Division 13.K.1.

³¹ Eligible contraventions must not involve conduct that was deliberate or fraudulent, or caused or contributed to an accident or serious incident. A handful of prescribed regulations are also specified in CASR 13.325 in respect of which protection under the ASRS scheme may not be claimed.

103. On making such a report, the reporter is issued with a receipt by the ATSB; and with that receipt in hand, the person may claim protection from action by CASA in relation to the contravention, in relation to administrative action to vary, suspend or cancel their authorisation, or the imposition of an administrative penalty under the infringement notice scheme.³²
104. A person may only claim the protection afforded by the ASRS once every five years. On those occasions where protection may be claimed, the person must invoke his or her claim within 10 days after the contravention, before a show cause notice or an infringement notice is served.³³

CASA Confidential 'Hot Line'

105. For many years, CASA has maintained a confidential 'hot line', which anyone may use to report any matter they believe may involve an aviation-related threat to safety. The 'hot line' is available toll free, 24 hours a day, 7 days a week. Contact details are published on CASA's website,³⁴ and there is no need for the person reporting to identify him- or herself.
106. On receiving information via the hot line, CASA immediately refers the matters raised to the area in the Authority (and where appropriate, outside the Authority) best placed to address the safety issues identified.
107. Because the hot-line system is confidential, there is no need to provide 'protection' for the person making the report. At the same time, however, it is recognised that the nature of the information reported may, if and when it is acted on by CASA, unavoidably serve to identify the reporter to CASA or to the person about whom the report was made.

'Legislative immunity' for pilots and other flight crew members who report on safety-related matters

108. Whether there is a need to provide 'legislative immunity' to pilots and other flight crew members who report on safety-related matters 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;

³² Civil Aviation Act, s. 30DO.

³³ Civil Aviation Act, s. 30DO.

³⁴ http://casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_91622.

- the circumstances under which the information is reported; and
- the use to which the information reported is or may be put.

109. Certain protections are provided in relation to information obtained by the ATSB in the course of an investigation under the Transport Safety Investigation Act. These are matters in respect of which the ATSB is in the best position to comment. For present purposes, however, CASA draws the Committee's attention to the principle underpinning the standards and recommended practices specified in Annex 13 to the Chicago Convention—*Aircraft Accident and Incident Investigation*,³⁵ of which CASA and the ATSB alike are cognisant:

*'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.'*³⁶

110. ICAO currently defines 'inappropriate use' broadly as:

*'the use of safety information for purposes different from the purposes for which it was collected, namely, use of the information for disciplinary, civil, administrative and criminal proceedings against operational personnel, and/or disclosure of information to the public.'*³⁷

111. To some extent, the protections of the kind provided under Annex 13, and in Australia under the Transport Safety Investigation Act, are extended, in principle, to employees of organisations required to have and maintain a safety management system (SMS).

112. In accordance with the applicable ICAO standards, all Australian airline operators are required to have in place a safety management system (SMS).³⁸ Essentially, a SMS involves 'a systematic approach to managing safety that includes (a) the organisational structures, accountabilities, policies

³⁵ 10th edition (July 2010).

³⁶ Attachment E to Annex 13, *Legal Guidance for the Protection of Information from Safety Data Collection and Processing Systems*, para 1.1, ATT E-1.

³⁷ Attachment E to Annex 13, *Legal Guidance for the Protection of Information from Safety Data Collection and Processing Systems*, subpara 1.5 c), ATT E-1.

³⁸ See CAO 82.3 and CAO 82.5.

and procedures necessary to manage safety in a systematic way; and (b) complies with the more specific requirements set out in the CAOs.³⁹

113. ICAO recognises that, in the same way the integrity of the accident and incident investigation process depends, in part, on the understanding that the information provided to the accident investigation agency by pilots and other flight crew members will not be used for ‘inappropriate purposes’ of the kind mentioned in paragraph 111 above, the integrity of an operator’s internal SMS will likewise depend, in part, 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.⁴⁰
114. Similarly, the guidance material CASA has produced to support the SMS requirements in the CAOs provides that the *safety policy statement* an airline operator is required to include in its SMS will typically include, amongst other things, an expression of management’s commitment to an open reporting culture in which there are:

‘clear boundaries about confidentiality, reporting requirements and individual responsibilities in relation to the SMS as far as management and staff are concerned . . .’,

but in which, too,

‘a clear distinction is required between what is acceptable behaviour and what is unacceptable, and that people are treated accordingly.’⁴¹

115. There are important differences between the way in which information reported by a pilot or other flight crew member to the ATSB, under the provisions of the Transport Safety Investigation Act and for the purposes of the investigation of an accident, may be used, and the way in which an employer might use information reported by and through an organisation’s SMS.

³⁹ See CAO 82.3: 2A and CAO 82.5: 2A.

⁴⁰ See ICAO *Safety Management Manual*, (ICAO Doc 9859) Second Edition (2009), sec. 9.7, pp. 9-9 -9.11.

⁴¹ Civil Aviation Advisory Publication, *Safety Management for Regulator Public Transport Operators*, CAAP SMS-1(0) (January 2009), para 3.2.5, pp. 13-14.

116. In the guidance materials produced by ICAO and CASA alike, however, it is suggested that use of information reported under a SMS may be used for what could include punitive or disciplinary purposes, or disclosed for the purposes of civil or criminal proceedings, if 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.⁴²

117. Indeed, ICAO guidance material published in conjunction with Annex 13 (but which is understood to extend beyond safety information obtained in the context of an Annex 13 accident or incident investigation)⁴³ provides, in pertinent part, that safety information otherwise entitled to protection from ‘inappropriate use’ should not be given such protection when:

‘there is evidence that the occurrence was caused by an act considered, in accordance with the law, to be conduct with intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct.’⁴⁴

118. A further and quite significant consideration to which the Committee’s attention is drawn is the propriety of the use of safety-related information otherwise regarded as entitled to protection, not for punitive or disciplinary purposes reported, but for safety related regulatory purposes. 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.

119. Before formulating firm policies or legislative mechanisms for determining broadly the circumstances under which certain kinds of safety-related information—including reports of safety related matters by pilots and other flight crew members—might properly be used, CASA believes it is imperative to fully consider:

⁴² See ICAO *Safety Management Manual*, (ICAO Doc 9859) Second Edition (2009), para 9.7.3, p. 9-8; Civil Aviation Advisory Publication, *Safety Management for Regulator Public Transport Operators*, CAAP SMS-1(0) (January 2009), para 3.2.7, p. 14.

⁴³ Attachment E (to Annex 13), *Legal Guidance for the Protection of Information from Safety Data Collection and Processing Systems*.

⁴⁴ Attachment E (to Annex 13), *Legal Guidance for the Protection of Information from Safety Data Collection and Processing Systems*, section 4, ATT E-2.

- 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.

120. Recognising the significance of these issues, Australia has effectively drawn them to the attention of the international civil aviation community in several well-received working papers prepared jointly by the ATSB and CASA for presentation at the ICAO Accident Investigation and Prevention Divisional Meeting in 2008, the ICAO High Level Safety Conference in April 2010 and at the 37th Session of the ICAO Assembly in October 2010.⁴⁵

121. Following on from the discussions generated by these important issues at the meetings mentioned above, and consistent with three resolutions adopted by the Assembly earlier this month,⁴⁶ ICAO will be forming a multi-disciplinary task force to review these issues as a matter of urgency, with a view to the possible revision of the standards and recommended practices specified in Annex 13, and the guidance materials set out in Attachment E to that Annex and the ICAO *Safety Management Manual*. It is expected that Australia will play a significant part in ICAO's efforts in this connection, and CASA urges the Committee to refrain from recommending the further consideration of legislation in this area pending the outcome of this work.

(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**

122. Major safety incidents must be reported to the ATSB in line with the requirements of the Transport Safety Investigation Act and the *Transport Safety Regulations 2003*. Once reported, these events are assigned a category of investigation by the ATSB, and an investigation is initiated. CASA routinely considers and, where appropriate, acts on the findings and recommendations made by the ATSB.

⁴⁵ See Attachments D, E, F and G.

⁴⁶ See Attachments H, I and J..

123. Regardless of the ATSB process, CASA may at any time, undertake an independent regulatory investigation, with a view to such regulatory action, if any, as CASA may consider to be appropriate in the circumstances.
 124. In both the Jetstar incident on 21 June 2007 and Tiger Airways incident of 18 May 2009, the ATSB found that the aircraft operator did not comply with the reporting requirements of the *Transport Safety Investigation Act 2003*. Action in response to a failure to report under the Transport Safety Investigation Act is a matter for the ATSB. It is understood that this aspect of these matters will be addressed in the ATSB's submissions to the Committee.
 125. 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 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 the safety issue.
 126. Depending on the nature of an identified safety issue, CASA is consulted by the ATSB no later than the draft report stage, which gives CASA the opportunity to consider any identified safety issues and respond with any action that CASA considers to be necessary.
 127. The ATSB and CASA have entered into a Memorandum of Understanding which allows, amongst other things, for the provision of daily occurrence information to be passed from the ATSB to CASA. Consistent with its policies and legal obligations, the ATSB takes appropriate steps to ensure that the disclosure of personal information in this context is limited.
 128. CASA has policies in place to guide its decision-making in relation to the actions that may be taken on the basis of information that comes to CASA's attention in this way.⁴⁷ CASA's Accident Liaison and Investigation Unit is also involved in the management and disposition of this kind of information.
- (i) how reporting processes can be strengthened to improve safety and related training, including consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010; and**

⁴⁷ See CASA's *Enforcement Manual*, version 4.0 (November 2009).

129. Transport safety investigations and matters related to the Transport Safety Investigation Act and any proposed amendments to that Act are matters for the ATSB. That said, CASA shares concerns of the kind it is understood the ATSB will be raising about aspects of the Bill in its submissions to the Committee.
130. Subject to the points raised in CASA's submissions above, however, and having particular regard to the restraint CASA has urged in paragraph 122 above, CASA supports efforts to develop a fair, open and constructive reporting culture within air service organisations, and a rational, balanced approach to the management and disposition of such safety-related information as may be brought to the attention of the regulatory authority.

(j) Any other related matters.

131. There are no other points CASA wishes to raise affirmatively in these submissions. In the event the Committee should conduct hearings on these issues, however, CASA welcomes the opportunity to participate in and contribute constructively to those proceedings.
