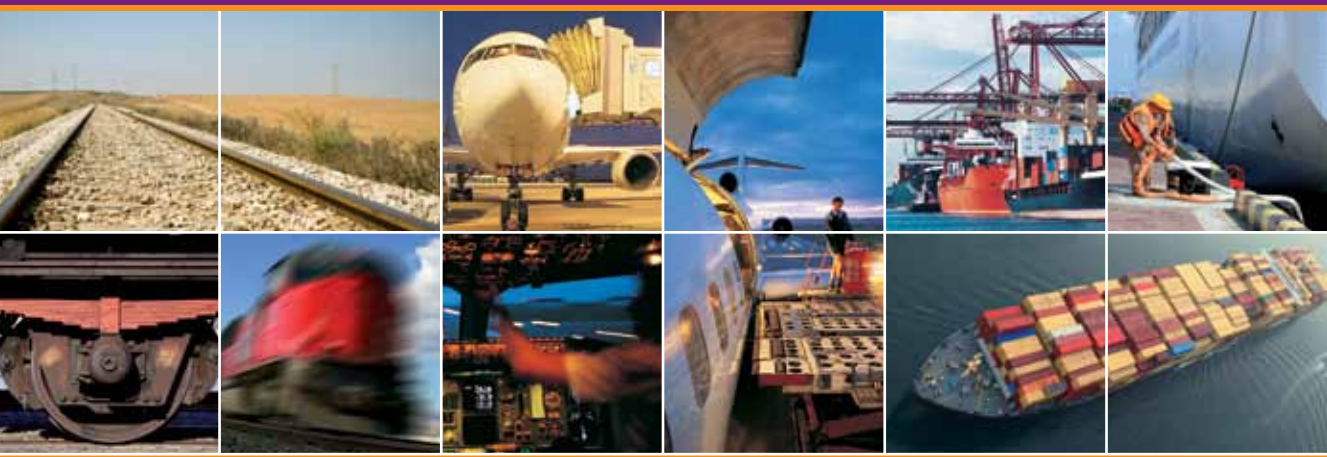
Australian Government

Australian Transport Safety Bureau

ATSB Annual Report

2009–2010



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Acknowledgements

Specific acknowledgements for the use of data, photographs and other materials are included throughout this report. Where we do not do so, the ATSB is the source of the material.

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LETTER OF TRANSMITTAL

Australian Government
Australian Transport Safety Bureau
Chief Commissioner

The Hon Anthony Albanese MP
Minister for Infrastructure and Transport
Parliament House
CANBERRA ACT 2600

Dear Minister

I am pleased to present the Annual Report of the Australian Transport Safety Bureau, reporting on the ATSB's operations for the year ended 30 June 2010.

This annual report has been prepared in accordance with section 63A of the *Transport Safety Investigation Act 2003* (TSI Act). Subsection 63A(1) of that Act requires that I give this report to you. I recommend that, consistent with the normal provisions for annual reports, you make the report available to the Parliament.

In addition to the information required by subsection 63A(2) of the TSI Act, the report summarises the ATSB's performance for the year, consistent with the government's policies on the preparation of annual reports. It also includes the ATSB's financial statements, as required by section 49 of the *Financial Management and Accountability Act 1997*, and an audit report on those statements in accordance with section 57 of the same act.

I also certify, under section 9 of Guideline 1 of the Commonwealth Fraud Control Guidelines, that I am satisfied that the ATSB has prepared fraud risk assessments and fraud control plans, and has in place appropriate fraud prevention, detection, investigation, reporting and data collection procedures and processes that meet the specific needs of the ATSB and comply with the Guidelines.

Yours sincerely

Martin Dolan
Chief Commissioner and CEO

Noel Hart
Commissioner

Carolyn Walsh
Commissioner
13 October 2010

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This report is also available on our website, at **www.atsb.gov.au**. It is usually available online the day after it is tabled in the Parliament.

Before making decisions or acting on information in this report, you are advised to contact the ATSB. This report was up-to-date when it was tabled, but details do change over time due to legislative, policy and other developments.

Equally, if you have suggestions about ways in which we could improve our annual report, please let us know.

To contact our annual report team:

atsbinfo@atsb.gov.au

or

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CIVIC SQUARE ACT 2608

Contact details for other parts of the ATSB can be found at our website, at **www.atsb.gov.au**.

REVIEW BY CHIEF COMMISSIONER

The Australian Transport Safety Bureau (ATSB) became a separate statutory agency on 1 July 2009. This was the final step in the transition to independence from being an operational division of the Department of Infrastructure, Transport, Regional Development and Local Government. This Annual Report covers the first year of operations under those new arrangements.

Operational start-up for the new organisation was smooth and well-controlled, thanks in large part to the hard work of our corporate services staff and our colleagues in the Infrastructure Department. At the same time, the ATSB continued to deliver its core business of conducting transport safety investigations, some of which were complex and the subject of significant industry and public interest both in Australia and internationally. A number of those investigations led directly to significant initiatives to improve transport safety.

Legally, the ATSB consists of three Commissioners: Mr Noel Hart, Ms Carolyn Walsh and me. The three of us are generally referred to as 'the Commission'. As the Chief Commissioner, I am also Chief Executive Officer of the ATSB, with responsibility for the employment of staff and the management of financial and other resources.

One of the Commission's most important responsibilities is to ensure that a transport safety investigation is complete and that a final report can be published; this includes determining what important safety messages arise from an investigation and the best means to communicate those messages. The *Transport Safety Investigation Act 2003* reinforces this responsibility: it requires the

The ATSB Commissioners (left to right) – Carolyn Walsh (Commissioner), Martin Dolan (Chief Commissioner), Noel Hart (Commissioner)

Chief Commissioner to describe in the ATSB's annual report those investigations that have raised significant issues in transport safety. This review meets that requirement.

Some of the investigations described below are not yet finished. It is the ATSB's policy, however, to bring critical safety issues to the immediate attention of those best placed to take prompt action.

Rail safety investigation

The rail investigation team completed 11 transport safety investigations in the past year. Two of those investigations were conducted on behalf of the Queensland Department of Transport and Main Roads, in accordance with provisions of Queensland's *Transport Infrastructure Act 1994*, with a senior ATSB rail safety investigator as the independent chair of the investigation team. These high-profile investigations involving passenger trains at level crossings were conducted in a timely manner and resulted in wide-ranging safety action by the Queensland Government. They and other investigations highlight the continuing issues of road design, marking and road use that are the most significant influences on safety at level crossings, particularly where heavy road transport vehicles are involved.

In the course of a number of other investigations, the ATSB continues to observe a concerning pattern of safe-working irregularities, including some resulting in fatalities, that are principally attributable to communications issues. We draw the attention of rail operators to the need for improved procedures and training in effective radio communication between train controllers and train crew and track workers.

Marine safety investigation

The marine investigation team completed 11 safety investigations, including one in assistance to the New Zealand Transport Accident Investigation Commission (TAIC). While all investigations are conducted by the ATSB with the aim of identifying and promulgating useful safety messages, there were two in particular that, from my perspective, raise significant issues in transport safety.

The first is the collision of the yacht *Ella's Pink Lady* and the bulk carrier *Silver Yang*. The investigation found that when the two vessels collided, neither the yacht's skipper nor the ship's watch keepers were keeping a proper lookout, nor were they appropriately using navigational aids to manage the risk of collision. The investigation also found that following the collision, the ship's watch keeper did not adequately offer to assist the yacht's skipper.

Failure to stop and render assistance is a problem that has also been highlighted by previous ATSB investigations and is a continuing problem around the world. The investigation serves as a timely reminder that, under United Nations conventions, ship operators have an obligation to offer assistance immediately to other vessels following a collision.

The second significant investigation involved the container ship *APL Sydney,* which ruptured the submarine ethane gas pipeline in Port Phillip after dragging its anchor across the pipeline in strong gale force winds.

The ship's anchor had been let go too close to the pipeline in poor weather conditions and insufficient anchor cable was deployed. Inadequate action was taken on board the ship and at harbour control to prevent the anchor from snagging the pipeline. After snagging the pipeline, the anchor windlass failed. Instead of releasing the fouled anchor, an attempt was made to clear it and this led to the pipeline rupture.

After the rupture, *APL Sydney* was manoeuvred clear of the escaping gas and the pipeline. There were no injuries and the pipeline was isolated. The anchor cable was cut and left in the anchorage with the anchor. Repairs to the pipeline took several months.

The ATSB investigation identified 10 significant safety issues in relation to the port's risk management, with respect to the pipeline and anchorage boundaries and its shipping control procedures, the ship's safety management system, the pilotage company's safety management system, and the windlass failure. Safety action to address all of the safety issues identified was proactively taken by the relevant parties.

Of particular significance, given other investigations and occurrences internationally, are the ongoing issues of effective bridge resource management when a pilot is on board a vessel. The ATSB draws attention to the need for training of pilots and deck officers to give emphasis to issues of role clarity between pilots and officers, cross-cultural issues and the need for clear communication protocols.

Aviation safety investigation

The aviation investigation teams completed 68 aviation accident and incident investigations in the past year, several of which attracted substantial national and international interest. Many of those investigations, both completed and ongoing, have helped to identify important safety issues.

The first is an occurrence involving an A320 aircraft that performed an incorrect go-around in fog at Melbourne Airport. In the process, the crew was unaware of the aircraft's current flight mode. The aircraft descended to within 38 ft of the ground before climbing.

The investigation highlighted the risks of changing standard operating procedures, particularly without formal risk management processes. Even more significantly, it provided more evidence that issues remain about the adequacy of some elements of oversight and delivery of pilot training. These issues are also coming into prominence in a number of other aviation investigations.

The aircraft operator has commenced a review of its flight training requirements, and the Civil Aviation Safety Authority (CASA) is reviewing the regulations relating to the provision of flying training by third party training providers. The ATSB nevertheless

draws attention to the safety significance of effective training oversight, whether delivered by third parties or in-house. The ATSB will be directing further investigative efforts to this area of potential safety risk.

The second is an occurrence involving an Embraer 120 aircraft at Jundee Airstrip, Western Australia. On final approach to the airstrip, the aircraft unexpectedly drifted left of the runway centreline and the crew decided to initiate a go-around, whereupon the aircraft violently rolled and yawed left. The crew had difficulty controlling the aircraft and narrowly avoided colliding with the ground.

The ATSB investigation established that the left engine had sustained a total power loss following fuel starvation. That had occurred because the left fuel tank was empty. The ATSB identified multiple safety factors associated with the fuel quantity indicating system, the ability of the crew to recognise the left engine power loss, and their performance during the go-around.

After the incident, the operator introduced revised procedures for measuring fuel quantity, and CASA initiated a project to amend the guidance to provide better clarity and emphasis. In March 2009, an EMB-120 flight simulator came into operation in Melbourne, Victoria. CASA has advised that a Notice of Proposed Rule Making relating to simulator training requirements will be released by the end of July 2010 with a response period of six weeks. Final rule making is expected to be accomplished toward the end of the calendar year.

The occurrence does, however, also draw attention to several other significant safety issues that are also appearing in other investigations. These include a pattern of problems with stabilised approaches to landing, a number of instances of potential and actual accidents arising from inadequate fuel management, and some early indications of systemic problems with the handling of asymmetric engine conditions.

In each of these cases, the ATSB will be doing further work to establish the scope and scale of the problem. In the meantime, we encourage operators to make their own assessments in these areas to satisfy themselves that the risk is as low as reasonably practicable.

Finally, the ATSB draws attention to an aspect of its trend analysis of safety in general aviation. The fatality rate has not significantly varied over the last ten years, nor has the relative proportion of the major contributors to those fatalities: fuel management, controlled flight into terrain, wire strikes and visual flight in instrument conditions. Detailed investigation is adding little safety value. It is clear that a shift of emphasis to greater safety education is necessary.

‘Level 5’ investigations

One of the most significant and strategic developments of the past year is the creation of a new investigation team. The ATSB receives around 15,000 notifications each year, of which we classify about 8,000 as safety occurrences. In recent times, our resources have allowed us to investigate about 80 of these occurrences each year. By making internal adjustments to our resources, we are now able to focus our core investigation resources on a slightly smaller number of more significant and complex investigations, while simultaneously increasing our overall number of investigations through the establishment of the Level 5 team.

The Level 5 team produces short summary reports which compile information on the circumstances surrounding an occurrence and the safety action that may have been taken or identified as a result. This new team produced its first investigation bulletin, *Level 5 Factual Investigations: 1 December 2009 to 30 March 2010.* I believe that the Level 5 team will prove valuable in complementing the work of the established investigation teams by providing more detailed data on a larger number of safety occurrences for future research and analysis, and will assist Australia in meeting its international obligations to investigate all accidents and serious incidents.

Outlook for 2010–11

From its foundation in aviation safety investigations, the ATSB has expanded into a broader transport safety role incorporating marine and rail transport. Its undoubted capabilities in these modes will need to be maintained and may even need to be expanded to support the requirements of cooperative transport safety agreements among the states, territories and Commonwealth. We also face a future where technology—and how people interact with it—will continue to evolve. The assessment and control of safety risks will need to evolve in parallel. The ATSB’s consistent emphasis on analysing and communicating the human factors that are fundamental to achieving safety outcomes equips it well to contribute in this changing environment.

In responding to its future challenges, the ATSB will maintain its focus on improving transport safety through rigorous investigation, cogent communication of safety issues, facilitation of safety actions, dissemination of safety advice, and effective education. Without compromising its independence, the ATSB will seek to cooperate with governments, regulators and industry participants to achieve its common objective of improved transport safety. I am proud to lead such a competent and professional organisation and to support the continued work of its staff.

AGENCY OVERVIEW

The Australian Transport Safety Bureau (ATSB) is Australia's national transport safety investigator.

Established by the *Transport Safety Investigation Act 2003* (TSI Act), the ATSB conducts its safety investigations in accordance with the provisions of the Act and with a focus on improving safety. Under the TSI Act, it is not a function of the ATSB to apportion blame or provide a means for determining liability in safety matters. The ATSB does not investigate for the purpose of taking administrative, regulatory or criminal action.

The ATSB is funded by the Australian Government to deliver a single outcome:

- **improved transport safety in Australia including through:**
  - **independent 'no blame' investigation of transport accidents and other safety occurrences**
  - **safety data recording, analysis and research**
  - **fostering safety awareness, knowledge and action.**

Our objectives

The ATSB will work actively with the aviation, marine and rail industries, as well as with transport regulators and governments at a state, national and international level, to improve transport safety standards for all Australians, particularly those travelling within Australia and overseas. Investigations and related activities seek to raise awareness of identified safety issues and to encourage stakeholders to implement actions to improve future safety.

Our functions and approach

The ATSB's primary function is to improve aviation, marine and rail safety by means that include:

- receiving and assessing reports of transport safety matters, including notifications of safety occurrences and confidential reporting
- independently conducting no-blame investigations of accidents and other safety occurrences, including investigations based on research

- identifying factors that contributed to those accidents and other safety occurrences or which affect, or might affect, transport safety
- encouraging safety action in response to those safety factors by acknowledging safety action already taken and by issuing safety recommendations and advisory notices
- raising awareness of safety issues by reporting publicly on investigations and conducting public educational programs.

The ATSB's capacity to carry out its primary function of improving transport safety is critically dependent on the quality of its relationship with industry and the community. The ATSB therefore has the additional role under the TSI Act of cooperating with government agencies, private organisations and individuals who have transport safety functions and responsibilities or who may be affected by its transport safety activities. In addition, the ATSB cooperates with equivalent national bodies in other countries.

In carrying out its functions to the highest possible standards, the ATSB will actively engage in consultation, target its communications to ensure that transport industry stakeholders understand the importance of no-blame investigation, and encourage the open reporting of accidents and other safety occurrences. In doing so, the ATSB will promote an appropriate level of confidentiality and protection for sensitive safety information provided to it.

In addition, the ATSB will:

- focus its resources in the areas that are most likely to result in improvements to safety
- conduct investigations impartially, thoroughly, and in a timely manner
- obtain the information and expertise necessary to undertake its safety role effectively
- ensure there is appropriate consultation in the course of investigations, and that the significance and consequences of identified safety issues are well understood
- reflect in its reports the various expert views expressed to it, state its conclusions and set out its reasons for those conclusions
- express its reports and any necessary media statements in ways that address the issues objectively rather than attributing blame or fault
- make timely safety recommendations that are practical and capable of materially improving transport safety if acted upon
- ensure that authoritative investigations are translated into clear safety messages and effective safety actions.

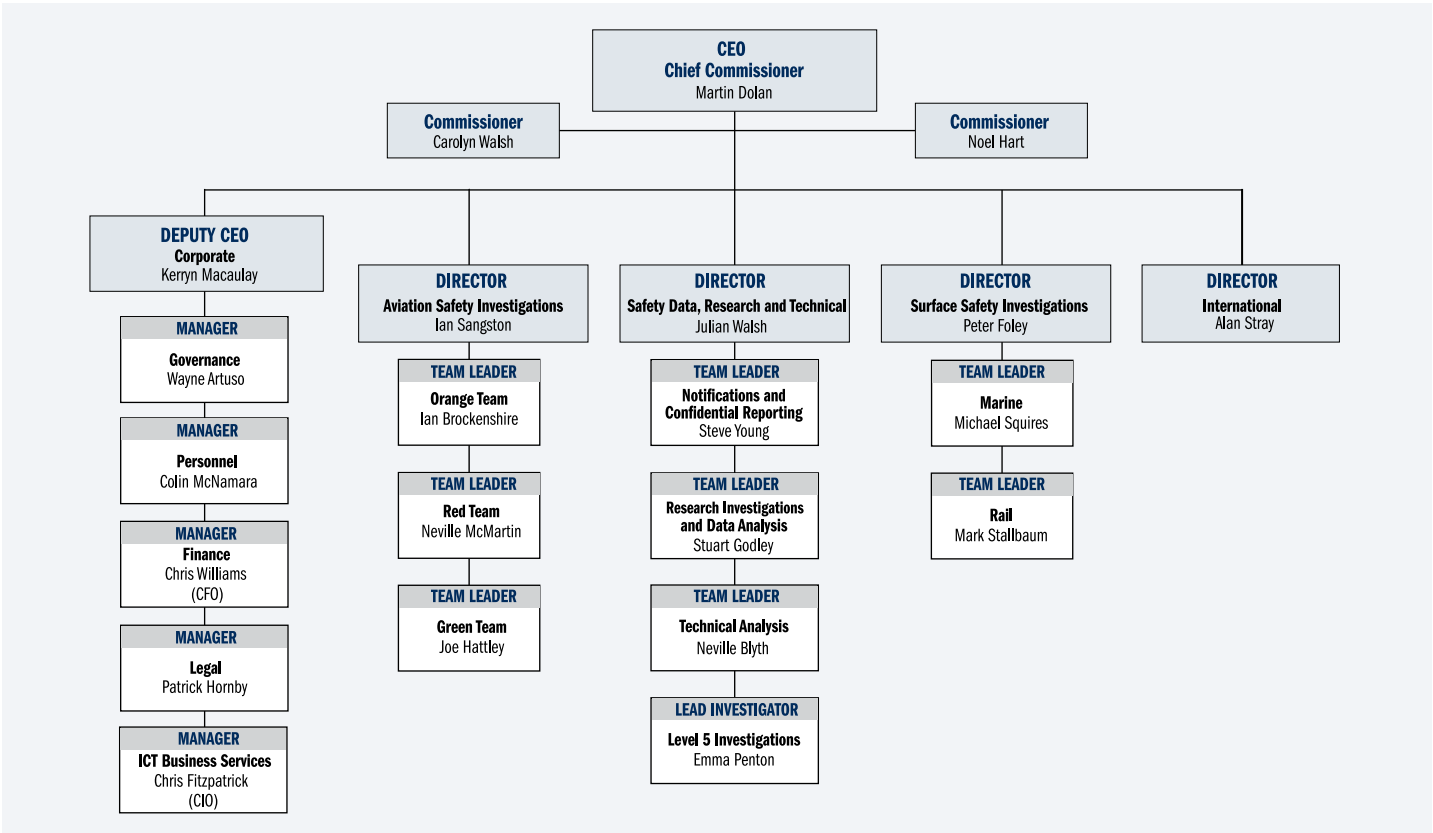
Our principles

We approach our work in accordance with the five key principles intended to maintain trust in our organisation:

Independence:	we think for ourselves
Engagement:	we work with others
Rigour:	we rely on evidence
Innovation:	we are open to new ideas
Relevance:	we make a difference

The ATSB Executive (left to right) –
Julian Walsh, Peter Foley, Martin Dolan, Ian Sangston, Alan Stray, Kerryn Macaulay

Our Organisational Structure as at 30 June 2010



EXECUTIVE PROFILES

Mr Martin Dolan

CHIEF COMMISSIONER

Martin Dolan was appointed as the first Chief Commissioner of the ATSB on 1 July 2009 for a term of five years.

Mr Dolan has worked as a Commonwealth public servant for 30 years. Prior to the ATSB, he was Chief Executive Officer of Comcare, with responsibility for the occupational health and safety and workers' compensation of Commonwealth employees.

From 2001–2005 he was Executive Director, Aviation and Airports at the Department of Transport and Regional Services, with responsibility for airport sales and regulation, aviation security, aviation safety policy and international aviation negotiations.

Previously, Mr Dolan had undertaken various corporate management roles in the Department of Agriculture, Fisheries and Forestry, including Chief Finance Officer and Head of Corporate Management. He started his public service career in 1980 with AusAid, managing aid projects in developing countries.

Ms Carolyn Walsh

COMMISSIONER

Carolyn Walsh has over 25 years experience in policy development, regulation and safety management at both the Commonwealth and state levels. She has 10 years experience in the transport sector, initially as Executive Director, Strategy in the NSW Office of the Coordinator–General of Rail, and then as the Chief Executive of the NSW Independent Transport Safety and Reliability Regulator (ITSRR).

In addition to her role as Commissioner of the ATSB, Ms Walsh is currently a member of the NSW WorkCover Authority Board and of the NSW Minister's Freight Advisory Council. She is also a member of the Audit and Risk Committees for the NSW Police Integrity Commission, the Aboriginal Lands Council and the Public Transport Ticketing Corporation.

Ms Walsh has specialist expertise in safety (both transport and occupational health & safety), risk management and the regulatory framework governing transport operations in Australia. She was the Chair of the national Steering Committee that advised the National Transport Commission on the development of the national Model Bill for Rail Safety, which has now been adopted in most states and territories. ITSRR's functions included not only safety management, but oversight of the reliability and sustainability of publicly funded rail, bus and ferry operations in NSW. She therefore has significant expertise in transport policy, asset management and performance measurement.

Ms Walsh has a Bachelor of Economics degree and is a graduate of the Australian Institute of Company Directors Company Directors Course.

Mr Noel Hart

COMMISSIONER

Noel Hart has over 30 years experience in the shipping industry, including thirteen years at sea in senior deck officer positions. His qualifications include a Master Mariner Class One degree and business administration and MBA certificates.

Mr Hart left his seagoing career to join BP Australia in 1985 and has held management positions with BP Shipping in Melbourne, London and Chicago in roles including Australasian Regional Shipping Manager, Liquefied Natural Gas and Shuttle Tanker Fleet Manager, Marine and Technical Assurance Manager (UK), and Regional and Commercial Manager (USA).

From 2006 to 2009, he was appointed to the position of General Manager of North West Shelf Shipping Service Company, based in Perth. In this position, Mr Hart was responsible for the safe shipping of Liquefied Natural Gas from north-western Australia to Asian and other global customers.

Whilst based in London, Mr Hart was Chairman of the General Purposes Committees of both the Oil Companies International Marine Forum and the Society of International Gas Tankers and Terminal Operators. He also served as director of the Middle East Navigational Aids Service, and was an alternate director of both the Alaskan Tanker Company and the Marine Preservation Society in the USA, as well as the Marine Oil Response Centre in Australia.

In November 2008, Mr Hart was elected as Chairman of the Australian Shipowners Association, and in July 2009 he was appointed as a Commissioner of the Australian Transport Safety Bureau.

Ms Kerryn Macaulay

DEPUTY CHIEF EXECUTIVE OFFICER

Kerryn Macaulay is the ATSB's first Deputy Chief Executive Officer. She joined the then Bureau of Air Safety Investigation (BASI) in 1995 as an Air Safety Investigator. Ms Macaulay later managed the Safety Analysis Branch of BASI, a role which included the review and release of safety recommendations and safety study reports to organisations within the aviation industry including regulatory agencies, operators and manufacturers.

Since the formation of the ATSB in 1999, Ms Macaulay has assisted in developing a capacity to investigate rail accidents and incidents and was appointed as the first Team Leader of the Rail Safety Unit. She completed a three-year project to develop and implement Commonwealth multi-modal legislation which culminated in the introduction of the *Transport Safety Investigation Act 2003.* Ms Macaulay assisted in the establishment of the ATSB as a Registered Training Organisation and in the development of a Diploma of Transport Safety Investigation, which enables the ATSB to meet its unique training requirements.

In October 2003, Ms Macaulay was seconded to the newly established NSW Independent Transport Safety and Reliability Regulator for a period of eight months to assist in setting up the Office of Transport Safety Investigation.

Prior to being appointed the Deputy Chief Executive Officer, Ms Macaulay was the Director of Strategy and Capability and was responsible for the oversight of technical analysis facilities, aviation research and analysis, information and coordination, notifications and confidential reporting, legislative matters affecting the ATSB, the training and development needs of staff and the ATSB's Safety Investigation Information Management System.

Ms Macaulay is a commercial pilot and flight instructor with an Airline Transport Pilot Licence. She is a trained teacher and holds a Diploma of Transport Safety Investigation. She also has an Executive Master of Public Administration with the Australia and New Zealand School of Government.

Mr Ian Sangston

DIRECTOR

(AVIATION SAFETY INVESTIGATIONS)

Director of Aviation Safety Investigations, Ian Sangston joined the ATSB as a Senior Transport Safety Investigator (STSI) in April 2002 after 23 years service in the Australian Defence Force. In addition to a number of pilot qualifications, he also has an undergraduate degree and two post-graduate masters' degrees in Management Studies and Employment Relations.

Mr Sangston managed a number of high profile and other investigations as an STSI and completed his Diploma of Transport Safety Investigation in June 2005. He was promoted to Team Leader, Transport Safety Investigation in mid-2006 and assumed responsibility for the Perth Regional Office. As Team Leader, he oversaw more than 80 aviation safety investigations.

In August 2009, Mr Sangston was promoted to his present position.

Mr Peter Foley

DIRECTOR

(SURFACE SAFETY INVESTIGATIONS)

Peter Foley is Director of Surface Safety Investigations, a role he has held since August 2006. He is responsible for marine and rail safety investigations and the ATSB's work on the proposed reforms to the National Transport Regulatory framework.

Mr Foley joined the ATSB in 1999 after a career at sea as a marine engineer with Australian shipping companies, including ANL Limited, the Commonwealth shipping line. Since joining the ATSB, he has been responsible for a large number of marine investigations, many of them significant, and has also had a close involvement in many rail investigations. He has represented the ATSB and Australia at many national and international marine and rail industry meetings and conferences.

Mr Foley holds professional qualifications in marine engineering and transport safety investigation, degrees in both marine and mechanical engineering, and a graduate diploma in business management.

Mr Julian Walsh

DIRECTOR

(SAFETY DATA, RESEARCH AND TECHNICAL)

Julian Walsh is Director of Safety Data, Research and Technical, a role he has held since July 2009. Prior to joining the ATSB as an air safety investigator in September 1998, he completed nearly 21 years of service as an officer in the Royal Australian Air Force.

While in the Air Force, Mr Walsh gained extensive experience both as an operative Air Traffic Controller and as an Air Traffic Services manager. He is a graduate of the Royal Australian Navy Staff College and has held a range of command, personnel, project management, training and aviation safety related positions in Defence.

Since joining the ATSB, Mr Walsh has been responsible for a number of significant aviation investigations and has overseen a range of functions within the ATSB. He has served as a Team Leader of Notifications and Technical Analysis and as an Aviation Investigation Team Leader. He was Director, Aviation Safety Investigation from March 2006 until June 2009.

In January 2004, he was awarded an Australia Day Medallion for his leadership and ethics in major aviation safety investigations and analysis.

Mr Alan Stray, PSM

DIRECTOR

(INTERNATIONAL)

Alan Stray, PSM, was Director International, with responsibility for international engagement and liaison with government agencies, oversight of the ATSB's involvement in the Australian Government's Indonesia Transport Safety Assistance Package (ITSAP) program, the International Civil Aviation Organization, and industry.

Mr Stray joined the then Bureau of Air Safety Investigation (BASI) as an aviation safety investigator in January 1987 and has been involved in most areas of the ATSB's aviation activities. As an investigation exchange officer with the Transportation Safety Board of Canada between 1992 and 1994, he developed *Reflexions*, a multi-modal Canadian safety magazine modelled on the successful BASI Journal (which he had produced in Australia). Between July 1997 and March 2006, as Deputy Director, Aviation Safety Investigation, he was responsible for the oversight of aviation safety investigations.

Mr Stray has been the Australian Accredited Representative on a number of overseas major airline accidents, including the Garuda and AdamAir Boeing 737 tragedies in Indonesia. During the year, he continued to lead the ATSB's cooperation with the ITSAP program in Indonesia. He was also a guest speaker at a number of international and regional conferences, as well as a lecturer at training courses for investigators in the region.

In January 2005, Mr Stray was awarded the government's Australia Day Council Achievement Medallion for his contribution to aviation safety. In January 2008 he was again awarded a Medallion for the support provided to the Indonesian Government in the investigation of the crash of Garuda 737 at Jogjakarta in March 2007. In January 2009, he was honoured in the Australia Day Honours with the award of a Public Service Medal. The citation: 'For outstanding Public Service improving aviation safety in Australia and Indonesia'.

Mr Stray holds a Diploma of Transport Safety Investigation and management qualifications and, as a licensed aircraft maintenance engineer and pilot with an Airline Transport Pilot License, he has flown in Papua New Guinea, Canada, the USA and Australia.

Mr Stray retired from the ATSB and the Australian Public Service on 30 June 2010.

Outcome and program structure

Outcome 1: Improved transport safety in Australia including through: independent, 'no-blame' investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

PROGRAM 1.1: AUSTRALIAN TRANSPORT SAFETY BUREAU

Program 1.1 Objective

The Australian Transport Safety Bureau (ATSB) will work actively with the aviation, marine and rail industries, as well as transport regulators and governments at a state, national and international level, to improve transport safety standards for all Australians, particularly those travelling within Australia and overseas. Investigations and related activities seek to raise awareness of identified safety issues and to encourage stakeholders to implement actions to improve future safety.

Components of program 1.1:

i. Independent, 'no-blame' investigation of transport accidents and other safety occurrences

Independent investigations that are selective and systemic, and which focus on future safety rather than on blame, increase stakeholder awareness and action on safety issues, and foster industry and public confidence in the transport system.

ii. Safety data recording, analysis and research

Timely receipt and assessment of transport accident and other safety occurrence notifications allows the ATSB to identify and refer safety issues at the earliest opportunity. The maintenance and analysis of a body of safety information (including transport safety data and research and investigation reports) enables stakeholders and researchers to gain a better understanding of safety trends and safety issues.

iii. Fostering safety awareness, knowledge and action

Awareness and understanding of transport safety issues is increased through a range of activities, including consultation and education, and through the promulgation of research and investigation findings and recommendations; these contribute to the national and international body of safety knowledge and foster action for the improvement of safety systems and operations.

Investigation priorities and classifications

The ATSB's primary focus is on enhancing the safety of fare-paying passengers and, in particular, on those transport safety matters which may present a significant threat to public safety or which are the subject of widespread public safety concern. The ATSB therefore needs to direct significant attention to identifying systemic failures in aviation, marine and rail mass public transport systems—failures that have the potential to result in catastrophic accidents with large numbers of fatalities and serious injuries.

In addition, the ATSB has observed that many accidents involve repetition of past occurrences where the contributing factors are similar and the safety issues are well known. In these circumstances, the likely safety benefits and lessons may not always justify allocating significant resources. In those cases where targeted programs of safety education may be a more effective response, the ATSB may undertake a limited fact-gathering investigation only; if so, it will outline the reasons an extensive investigation has not been conducted. Equally, there is often as much or more to be learned from serious incidents or patterns of incident as there is from accidents and, where appropriate, the ATSB will give priority to these sorts of investigations.

The following broad hierarchies for aviation, marine and rail, which reflect the priorities described above, are taken into account when deciding whether to investigate and when determining the level of response required.

Aviation broad hierarchy

In applying these guidelines, the ATSB allocates its investigative resources in line with the following broad hierarchy of operation types:

1. Passenger transport—large aircraft
2. Passenger transport—small aircraft
   - regular public transport and charter on small aircraft
   - humanitarian aerial work (for example, Royal Flying Doctor Service, Search and Rescue flights)
3. Commercial (that is, fare-paying) recreation (for example, joy flights)
4. Aerial work with participating passengers (for example, news reporters, geological surveys)
5. Flying training
6. Other aerial work
   - non-passenger carrying aerial work (for example, agriculture, cargo)
   - private transport/personal business
7. High risk personal recreation/sports aviation/experimental aircraft operations.

Marine broad hierarchy

In applying these guidelines, the ATSB allocates its investigative resources in line with the following broad hierarchy of marine operation types:

1. Passenger operations
2. Freight and other commercial operations
3. Non-commercial operations.

Rail broad hierarchy

In applying these guidelines, the ATSB allocates its investigative resources in line with the following broad hierarchy of rail operation types:

1. Mainline operations that impact on passenger service
2. Freight and other commercial operations
3. Non-commercial operations.

Level of response

The level of investigative response is determined by resource availability and factors such as those detailed below. These factors are presented in no particular order and may, depending on the circumstances, vary in the degree to which they influence the ATSB's decision to investigate and the level of response. Factors include:

- anticipated safety value of an investigation, including the likelihood of furthering the understanding of the scope and impact of any safety system failures
- likelihood of safety action arising from the investigation, particularly of national or global significance
- existence and extent of fatalities/serious injuries and/or structural damage to transport vehicles/other infrastructure
- obligations or recommendations under international conventions and/or codes
- nature and extent of public interest; in particular, the potential impact on public confidence in the safety of the transport system
- existence of supporting evidence or requirements to conduct a special investigation based on trends
- relevance to an identified and targeted safety program
- the extent of resources available and projected to be available in the event of conflicting priorities

- the risks associated with not investigating, including consideration of whether, in the absence of an ATSB investigation, a credible safety investigation by another party is likely
- timeliness of notification
- training benefit for ATSB investigators.

The objective of the classification process is to identify quickly, determine the necessary allocation of resources for, and manage appropriately, those occurrences that:

- require detailed investigation
- need to be recorded by the ATSB for future research and statistical analysis
- need to be passed to other agencies for further action
- do not contribute to transport safety.

Three ways to action

The *Transport Safety Investigation Act 2003* (TSI Act) requires specified people and organisations to report to the ATSB on a range of safety occurrences (called 'reportable matters'). In principle, the ATSB can investigate any of these reportable matters. In practice, they can be actioned in one of three ways to contribute to the ATSB's functions:

1. A report of an occurrence that suggests that a safety issue may exist will be investigated immediately. Investigation may lead to the identification of the safety issue and evaluation of its significance, and set out the case for safety action to be taken in response.
2. A report of an occurrence that may not warrant a full investigation may benefit from additional fact gathering for future safety analysis to identify safety issues or safety trends.
3. Basic details of an occurrence, based primarily on the details provided in the initial occurrence notification, can be recorded in the database to be used in future safety analysis to identify safety issues or safety trends.

Note: In the third approach, the occurrence is not investigated immediately, but may be the subject of a future investigation.

The investigation levels

Investigations and other responses to reported safety matters are classified by the level of resources and/or the complexity and time they require. The levels are 1 to 5.

The list below describes the transport safety investigation levels used by the ATSB:

Level 1 investigations are likely to involve the majority of ATSB resources, in addition to significant external resources, for up to 24 months, and are likely to require additional one-off government funding.

Level 2 investigations involve a large number of ATSB (and possibly external) staff, and their scale and complexity may require up to 18 months to complete.

Level 3 investigations involve in-the-field activity and several ATSB (and possibly external) staff, and their scale and complexity may require up to 12 months to complete.

Level 4 investigations are less complex and require no more than nine months to complete (they may, at times, be a 'desktop' exercise requiring no in-the-field activity) and they involve only one or two ATSB staff.

Level 5 represents transport safety matters under the TSI Act, but these have been assessed as either:

- Level 5 (short), limited-scope factual information-only investigations which result in a short summary report of one to two pages. These are generally completed within four to six weeks and published quarterly. They require only one ATSB staff member.
- Level 5 (data entry), matters that do not require an investigation. The unverified information is entered into relevant databases for statistical purposes.

REPORT ON PERFORMANCE

This chapter provides a review of performance during the year in relation to the deliverables and key performance indicators of the ATSB's program and the agency's effectiveness in achieving planned outcomes.

Consistent with the government's Outcomes and Programs policy, the ATSB adopted revised key performance indicators and new deliverables for the 2009–10 program.

The ATSB had one key performance indicator this year.

Summary of performance

Table 1 on the following page summarises the ATSB's results in delivering Program 1.1 against the key performance indicator, deliverables, and targets published in the 2009–10 Portfolio Budget Statements.

Table 1

KEY PERFORMANCE INDICATOR	TARGET	RESULT
Proactive implementation of safety action by stakeholders, reducing the need to issue formal safety recommendations	In the majority of relevant cases	The number of proactive safety actions taken by modal stakeholders totalled 108, while the ATSB judged it necessary to issue 13 formal safety recommendations and 17 safety advisory notices.
PROGRAM DELIVERABLE	**TARGET**	**RESULT**
Proportion of accident and incident notifications and confidential reports received, assessed, classified and recorded (ATSB expects to receive around 12,000 potential accident and incident notifications and around 100 confidential reports in 2009–10)	100 per cent	The ATSB was notified of more than 15,100 aviation, marine and rail safety accidents and incidents. Following assessment, 8,545 were classified as transport safety matters and entered into the ATSB's safety databases. The ATSB also received 144 confidential reports. The ATSB managed this substantial increase in reports with the resources initially allocated for this function.
Number of selective investigations of accidents and incidents based on safety priorities and guidelines	100	The ATSB initiated 85 aviation, 10 marine and 8 rail investigations, and it completed 68 aviation, 11 marine and 11 rail investigations.
Number of selective research and analysis investigations based on safety priorities and trends	10	The ATSB commenced work on seven research and analysis investigations, basing them on safety priorities and trends. Ten aviation safety research and analysis investigations were completed.
Develop, review and test major accident investigation response capabilities	Annually	The ATSB participated in two major accident response exercises, including one aviation exercise and one rail exercise.
Contribute to international working groups and major conferences	International Civil Aviation Organization (ICAO), Accident Investigation and Prevention (AIG), Marine Accident Investigators International Forum (MAIIF), International Society of Air Safety Investigators (ISASI) and International Transport Safety Association (ITSA) meetings	ATSB staff members attended or presented at 40 events, ranging from presentations to amateur enthusiasts to lectures at international conferences and symposia. This included the ICAO High Level Safety Conference, meetings of the MAIIF and MAIFA, ISASI, and ITSA. There was no ICAO AIG divisional meeting this year.

Table 1 (continued)

PROGRAM DELIVERABLE	TARGET	RESULT
Comply with international safety investigation obligations as assessed by the ICAO and IMO compliance audit regime based on the Australian legal and governance framework	100 per cent compliance	In aviation, the ATSB was audited under ICAO's Universal Safety Oversight Program in 2008, as part of a state safety oversight audit. Two findings were made in relation to the ATSB's responsibilities. One finding has been addressed. The other remains extant and reflects Australia's internationally notified divergence from the relevant standard. In marine, the ATSB maintained the full compliance status which had been established with the 2008 Voluntary International Maritime Organization Member State Audit Scheme.
Complete endorsed ATSB projects under ITSAP for 2009–10	100 per cent completion	All projects were completed on time and to a high standard, including: • Three National Transportation Safety Committee (NTSC) investigators obtained a Diploma of Transport Safety Investigation. • 15 NTSC aviation accident and serious incident investigations were completed and published on NTSC website. • A report writing course and (air traffic services) investigation courses were delivered. • Train-the-trainer courses for human factors and blood-borne pathogen awareness were developed.
Publish ATSB final investigation reports and make available on ATSB website	100 per cent	There were 90 final investigation reports published by the ATSB. In addition, 10 safety research and analysis investigation reports were published. All of them were placed on the ATSB website, **www.atsb.gov.au**.

Summary of Financial Performance

This section should be read in conjunction with the ATSB's audited financial statements for 2009–10 which appear in the Financial Statements section of the annual report.

This is the first year of the ATSB as a separate agency of the Government and there are no prior year results for comparison.

ATSB Finances

The ATSB was established financially through a transfer of assets and liabilities from the former Department of Infrastructure, Transport, Regional Services and Local Government under S32 of the *Financial Management and Accountability Act 1997* (the FMA Act). Essentially, the ATSB received the computer and laboratory equipment and intangible software assets that were in use by the ATSB when it was part of the Department. In addition, the ATSB took over from the Department employee leave provisions of ATSB staff and received sufficient operating capital to establish corporate functions and to meet its forward commitments. Total equity (net assets) transferred by the Department was $8.3m and the details of the transfer are shown in Note 10 of the Financial Statements.

Over the financial year, the ATSB received revenue of $22.4 million through annual appropriation for the operating costs of the agency. In addition, it received $0.7 million in other revenue, principally to fund its cooperation activities with its Indonesian counterpart and to recover the costs of specialised training the ATSB provided to external bodies. Total expenses were $22.8 million, of which about 60% was for employee expenses.

The establishment of a new Australian Government agency involves a significant investment in people and systems, as well as a wide range of processes for good governance. The ATSB's commitment to sound financial management is reflected in its financial performance and unqualified financial statements. The operating result was a surplus of $0.3m on total revenues of $23.1m.

The ATSB's first year results demonstrate a strong compliance with the Government's financial policies and with the requirements of the FMA Act. Ongoing training, robust processes and continuous improvement of policies and systems will underpin sound financial management results for the future.

Table 1.1 Summary of financial performance and position:

		2009–10 $M
Revenue from Government		22.4
Other revenue		0.7
Total Income		**23.1**
Employee expenses		13.8
Supplier expenses		7.3
Depreciation and amortisation		1.7
Total Expenses		**22.8**
Operating surplus		**0.3**
Financial assets	A	8.4
Non-financial assets	B	3.9
Liabilities	C	5.0
Net Assets – A + B – C		**7.3**

Detailed report on performance

The following report describes the performance of the components of Program 1.1 defined in the 2009–10 Portfolio Budget Statements. Given changes to the key performance indicators and deliverables for 2009–10, detailed trend information is not available. Please note that for this program, the section 'IV Other activities' has been added to address the development of National Transport Safety Reforms.

I Independent 'no blame' investigation of transport accidents and other safety occurrences

The purpose of all ATSB investigations and research is to prevent the occurrence of accidents and incidents, rather than to apportion blame or provide a means for determining liability.

Number of selective investigations of accidents and incidents based on safety priorities and guidelines

The ATSB investigates selectively, as do many equivalent international organisations. The aim is to concentrate resources on the in-depth investigations considered most likely to enhance transport safety. As many types of accidents are repetitive, investigating all accidents in detail is not justified, given the ATSB's limited resources. In such cases, the ATSB will not necessarily attend the scene, conduct an in-depth investigation or produce an extensive report.

In Australian aviation, the mandatory reporting requirements are comprehensive.[1] This, combined with a healthy reporting culture within the aviation industry, results in the ATSB receiving a large volume of occurrence reports each year, over 8,000 of which are classified as accidents, serious incidents and incidents. It is from the information provided in these notifications that the ATSB makes a decision on whether or not to investigate. While further information is sought in some cases to assist in making those decisions, resource constraints dictate that a significant amount of professional judgement needs to be exercised.

There are times when more detailed information about the circumstances of the occurrence would have allowed the ATSB to make a more informed decision both about whether to investigate at all and, if so, what necessary resources were required (investigation level). In addition, further publicly-available information on accidents and serious incidents would increase safety awareness in the industry and enable improved research activities and analysis of safety trends, leading to more targeted safety education.

1 In accordance with the Transport Safety Investigation Regulations 2003, marine and rail stakeholders are obliged to report accidents and incidents only, while Aviation stakeholders are required to report all safety occurrences (accidents, serious incidents and incidents).

In December 2009, the Chief Commissioner established a small team to manage and undertake limited-scope fact-gathering aviation investigations, focussing primarily on serious incidents and accidents. The short summary reports that result from those investigations are published in a quarterly bulletin—*'Level 5 Factual Investigations'*. The summary report is a compilation of the information the ATSB has gathered, sourced from individuals or organisations involved in the occurrences, on the circumstances surrounding the occurrence and what safety action may have been taken or identified as a result of the occurrence. The ATSB also provides comments in the reports, where relevant, about important safety messages or related literature or sources of safety information. The ATSB released the first edition of this bulletin on 20 April 2010, comprising six reports; the second bulletin was published on 29 June 2010, comprising 13 reports. Future bulletins should comprise about 20 reports as capacity within the ATSB to conduct these short investigations is further developed.

In rail, level crossing collisions featured in almost half of ATSB investigations during 2009–10. However, there has been a notable decline in reported level crossing collisions, particularly those involving heavy vehicles. The ATSB has focused significant resources on the investigation of these accidents in recent years and this work, in combination with the actions of the relevant regulatory bodies, may have contributed to a trend of improved safety in this area. The ATSB will continue to focus on level crossing occurrences where further safety lessons are expected to be learned.

In marine, the ATSB investigated a broad range of occurrences including groundings, collisions, serious injuries and fatalities, sinking, flooding and anchor fouling. In particular, the ATSB remains concerned about occurrences involving failure to stop and render assistance after a collision. This is a matter of global concern, and the ATSB continues to raise its concerns and to urge further safety action through the Flag State Implementation subcommittee of the International Maritime Organization.

In 2009–10, the ATSB initiated 85 aviation investigations, of which 24 were Level 5 Factual Investigations. It also initiated 10 marine investigations and 8 rail investigations. The ATSB completed 68 aviation investigations (of which 19 were Level 5 Factual Investigations), 11 marine and 11 rail investigations.

Table 2: Transport Safety Investigations

	MODE	Q1	Q2	Q3	Q4	TOTAL
Investigations commenced	Aviation	21	17	12	11	61
	Aviation Level 5	0	5	11	8	24
	Marine	4	2	2	2	10
	Rail	2	1	2	3	8
Investigations active at 30 June, 2010	Aviation	87	96	106	70	70
	Aviation Level 5	0	4	15	14	14
	Marine	13	13	14	11	11
	Rail	12	9	10	8	8
Investigations completed	Aviation	6	14	10	19	49
	Aviation Level 5	0	0	0	19	19
	Marine	2	3	2	4	11
	Rail	1	4	1	5	11

Develop, review and test major accident investigation response capabilities

The 2009–10 review and testing of the response capabilities of ATSB staff complemented previous testing of ATSB operational readiness. The ATSB's 2009–10 major accident response program included exercises in the aviation and rail modes. The aviation review exercised the specific requirements associated with maintaining evidence during the emergency response phase of a major accident response, before the ATSB assumed responsibility for the accident site. The handover of a major accident site from the emergency responders to the ATSB was also exercised as a part of an Airport Emergency Planning exercise at Canberra Airport in November 2009. Other activities undertaken to enhance the ATSB's major accident response capabilities included:

- provision of a briefing to the Royal Australian Air Force Emergency Officer's Course on the ATSB's response and potential interaction with the Department of Defence during a major accident
- ongoing participation in the National Airport Emergency Planning Advisory Group forum
- meetings and briefings with key stakeholders, particularly police and emergency services personnel, airport operators and major airlines.

The rail team took part in a desktop exercise run by Genesee & Wyoming Australia called 'Exercise Freight Train'. The exercise was designed to create awareness of what happens in a freight train accident involving dangerous goods in a metropolitan area and to help formulate contingency plans for response to a metropolitan freight train accident.

The ATSB contributed by providing details of its role as a Commonwealth safety investigation agency and working in conjunction with the railway operators and emergency services who were directly involved in the exercise. Information was provided to the participants on the ATSB's method of operation, standard operating procedure and available resources to assist the investigation.

Comply with international safety investigation obligations as assessed by the ICAO and IMO compliance audit regime based on the Australian legal and governance framework

The ATSB was audited under ICAO's Universal Safety Oversight Audit Program in 2008 as part of a state safety oversight audit of Australia. Two findings and associated recommendations for change were made in relation to ATSB responsibilities under ICAO Annex 13 to the Convention on International Civil Aviation, 'Aircraft Accident and Incident Investigation'. One finding remains extant and is subject to a current difference[2] notification against the relevant standard. That finding relates to the fact that Australia may not institute an investigation into all domestic accidents involving Australian-registered aircraft. Decisions on whether a particular domestic accident will be investigated will depend on resources and the likely benefit to future safety, particularly in the general, sport and recreational aviation sectors. The second finding relates to medical examinations for flight crew and passengers. While Australia initially filed a difference to this standard because the ATSB, as the accident investigation authority, cannot, by legislation, require such examinations to be carried out when considered necessary or desirable, the ATSB now believes legislation is unnecessary for compliance. The ATSB has actioned this finding through the development of appropriate policy and procedures, including checklists for interviewing parties involved in an accident or incident to identify whether there are any medical issues that would make it appropriate to arrange for a medical examination. The checklist also prompts the ATSB investigator to note whether or not a medical examination has been conducted. The ATSB is continuing to develop further supporting policies and procedures and will withdraw its difference on this matter on the basis of compliance by alternative means.

The ATSB achieved 100 per cent compliance with the Voluntary International Maritime Organization Member State Audit Scheme.

2 Where a country (State) that is a signatory to the Chicago Convention finds it impracticable to comply in all respects with an ICAO standard, it must notify ICAO of this. Such a notification is referred to as a 'difference'.

II Safety data recording, analysis and research

Proportion of accident and incident notifications and confidential reports received, assessed, classified and recorded (the ATSB expects to receive around 12,000 potential accident and incident notifications and around 100 confidential reports in 2009–10)

In 2009–10, the ATSB assessed more than 15,100 occurrence notifications, of which 8,545 were classified as 'transport safety matters' and were consequently entered into modal safety databases. These comprised 8,393 aviation occurrences, 97 marine occurrences and 55 rail occurrences.

Number of selective research and analysis investigations based on safety priorities and trends

In 2009–10, the ATSB continued to analyse information held in its aviation safety accident and incident database as part of Australia's obligations to the International Civil Aviation Organization (ICAO) in determining whether or not preventative safety measures are needed. The ATSB engaged industry experts and other stakeholders, where necessary or desirable, to ensure that the research was focused, timely and relevant.

The 10 aviation safety research and analysis reports released in 2009–10 covered a diverse range of topics. They included reviews of accident and incident trends, Australian aviation wildlife strike statistics, ground operations occurrences at Australian airports, and the first publication in a pilot education series on avoidable accidents. Aviation safety research publications are available on the ATSB's website, www.atsb.gov.au.

III Fostering safety awareness, knowledge and action

Contribute to international working groups and major conferences

Representation at meetings of safety investigation organisations from around the world provided opportunities for the ATSB to share insights on best practice and solutions to emerging challenges in the field of no-blame safety investigation during 2009–10. These included meetings of: the Marine Accident Investigators' International Forum, the Marine Accident Investigators' Forum Asia, the International Society of Air Safety Investigators, the Australian & New Zealand Societies of Air Safety Investigators, and the International Transport Safety Association.

International Civil Aviation Organization

The International Civil Aviation Organization (ICAO) is a specialised agency within the United Nations. It provides a global forum for civil aviation. ICAO works to achieve its vision of safe, secure and sustainable development of civil aviation through cooperation amongst its 190 member States.

The High Level Safety Conference, held in Montreal between 24 March and 3 April 2010, represented the third of its kind in ICAO's history, the previous meetings being held in 1997 and 2006. The main purpose of this conference was to agree on new strategies for managing safety and complementing the traditional prescriptive methodology with a proactive, performance-based approach better equipped to reduce accident rates from their present levels. This included discussions on ICAO's proposal to move from a universal audit program to a continuous monitoring approach and for a means by which States and ICAO can better share safety information, enabling States to focus resources on areas of greatest risk while ensuring that safety information is afforded appropriate levels of protection. There was also a focus on issues arising from recent accidents and on harmonisation matters. The three themes of the conference were:

1. foundations for global aviation safety
2. towards the proactive management of safety
3. other safety issues.

Within those themes, two subject areas were of particular interest to the ATSB's work:

- protection of sources of safety information
- safety initiatives from recent accidents.

The ATSB was the lead agency in preparing and presenting Australia's paper on the former. The conference agreed to the establishment of a multi-disciplinary group to review the current regime of protections of safety information as outlined in standard 5.12 and Attachment E of Annex 13 *Aircraft Accident and Incident Investigation* to the Convention on International Civil Aviation. The ATSB is actively seeking to participate in the proposed working group.

In relation to safety initiatives from recent accidents, the ATSB also supported the initiatives put forward by other countries which were primarily focussed on proposed strategies to improve communications, data capture, and search and rescue arrangements available to aircraft and flight crews experiencing operational or other safety-related problems that may place the safety of the flight at risk.

International Maritime Organization

The International Maritime Organization (IMO) is a specialized agency of the United Nations responsible for measures to improve the safety and security of international shipping and to prevent marine pollution. It is also involved in legal matters, including liability and compensation issues and the facilitation of international maritime traffic. The casualty analysis working and correspondence group of the Flag State Implementation (FSI) sub-committee is the forum for input and discussion about international trends in marine safety and safety investigation.

This year was the 18th FSI meeting. It was held at the IMO headquarters in London, as always, and an ATSB representative attended and participated. This is the international forum for raising safety issues and significant investigations of international significance. ATSB has always been a regular member of, and prominent contributor to, this group. This year's meeting of the working group was attended by 34 representatives from 26 countries.

The specific items dealt with included:

- The review of the report analyses and the lessons to seafarers for 113 selected reports reviewed by the correspondence group. These were then accepted and approved for release to IMO. Several methods of better dissemination of these lessons to the wider marine community were put to the secretariat for consideration.
- Two specific safety issues that need further consideration were identified by the correspondence group and reviewed by the working group:
  - the need for increased first aid training as recently identified in an ATSB report was agreed. This will be passed to the Standards of Training and Watchkeeping subcommittee for action.
  - the inadequate integration of pilots into bridge teams—this was referred to the Safety of Navigation sub-committee for further action.
- Discussion was introduced with regard to making the Voluntary IMO Member State Audit Scheme compulsory.
- A review on the IMO Global Integrated Shipping Information System casualty information database and the categorisation of some types of incidents was discussed.

International investigations

The ATSB has undertaken a significant level of cooperation with its regional and international counterparts over many years, assisting with investigations, conducting flight recorder replay and analysis, and conducting training workshops. The focus of this work is in two areas:

- ensuring that safety lessons and operational innovations are shared internationally
- collaborating on improving the international standards for accident investigation.

Australia's engagement with overseas counterparts is typical of the way the international transportation community cooperates for the common good. Lessons that will benefit safety are shared openly, and the knowledge gained assists other countries with improved passenger safety and better trained safety investigators. Australia's reputation for high quality and rigorous investigations makes it uniquely placed to assist transport safety in the Asia Pacific.

In aviation, many countries lack the capability to investigate anything other than major accidents; they do not have the resources to investigate serious incidents. For many of those countries, ICAO believes that the establishment of a regional accident investigation organisation or the creation of a regional pool of qualified investigators might be the only options enabling the establishment of an effective accident and incident investigation and prevention system. This continues to be the topic of much discussion in the international aviation community, especially in our region.

The ATSB continued to liaise and collaborate with overseas organisations on international investigations. In 2009–10, this included providing technical analysis assistance to the New Zealand Transport Accident Investigation Commission (TAIC) in the digitisation of legacy cockpit voice recorder and flight data recorder tape recordings and the appointment of an ICAO Annex 13 Accredited Representative to assist the UK Air Accidents Investigation Branch with an investigation into aircraft fitted with Australian–manufactured Jabiru engines.

The ATSB also consulted with the Philippines and the United States on the ATSB investigation of an accident involving an Australian-operated Boeing 747, and with France and the United States on the ATSB investigation of an accident involving an Australian-operated Airbus A330.

The ATSB assisted with the investigation into the sinking on 5 August 2009 of the Tongan inter-island ferry *Princess Ashika*. The Tongan Government had asked the New Zealand TAIC to assist with the investigation. TAIC requested additional assistance, and both an ATSB marine engineer and a human factors specialist joined the TAIC team. The team worked to produce its investigation report, which was delivered to the Tongan Royal Commission in under seven months following the tragedy.

Cooperation with Papua New Guinea on matters of transport safety

After the crash of a Twin Otter aircraft P2-MCB near Kokoda on 11 August 2009, in which nine Australians died, and following a request from the Papua New Guinea (PNG) Accident Investigation Commission (AIC), the ATSB tasked a team of investigators to work on this accident. The ATSB investigators worked alongside AIC staff in PNG, and AIC staff have travelled to Canberra for formal sessions related to the investigation.

ATSB investigator unloading investigation equipment in Papua New Guinea.

On 13 November 2009, the ATSB and the AIC signed a Transport Safety Investigation Annex to the *Memorandum of Understanding (MOU) between Australia and Papua New Guinea on Cooperation in the Transport Sector.* Specifically, the annex commits the parties to enhancing the capabilities and professionalism of their respective aviation and marine safety investigators. It also provides for the sharing of expertise and experience between the parties relating to aviation and marine safety investigations.

The Annex to the MOU is intended to provide a framework to enhance investigations more generally. To address the investigation of the accident at Kokoda, the ATSB and the AIC signed a Statement of Expectations to affirm the manner in which the ATSB is providing assistance. The ATSB has provided investigator support, information and technical advice and facilities support. The investigation was ongoing at the time of publication of the Annual Report.

The ATSB also completed a scoping study/needs analysis report aimed at identifying the best way to build capacity in the AIC. The findings and recommendations of the scoping study will provide a framework for the planned capacity building activities in 2010 and beyond, the exact nature and timing of which will be informed by discussions between the AIC Chairman and the ATSB Chief Commissioner.

Complete endorsed ATSB projects under ITSAP for 2009–10

On 31 January 2008, the governments of Australia and the Republic of Indonesia signed a landmark agreement to work together to improve Indonesia's transport safety.

Between July 2009 and June 2010, the Indonesia Transport Safety Assistance Package (ITSAP) continued to help develop capacity within the National Transportation Safety Committee (NTSC). Three investigators completed the 12-month ATSB Transport Safety Investigation Diploma in Australia: one aircraft maintenance engineer, one air traffic controller, and one rail specialist. One aircraft maintenance engineer investigator completed training in the ICAO-compliant accident and serious incident data reporting system. In January 2010, an aeronautical engineer commenced a six-month flight recorder replay and analysis course at the ATSB's recorder laboratories in Canberra.

The ATSB assisted Indonesia with more than 15 aviation accident and serious incident investigations, all of which were completed with reports finalised and made public on the NTSC web site. Some of the flight recorder (black box) replay and analysis in support of these investigations was conducted in Australia. Numerous safety actions were taken by industry and regulators, and recommendations for safety improvement were also made by the NTSC.

A number of courses and seminars were conducted in Indonesia in 2009–10 covering ICAO Annex 13 report writing, air traffic services investigation, and blood-borne pathogen and site safety awareness. A significant achievement was the development of train-the-trainer courses in human factors for investigators and blood-borne pathogen awareness. These courses have provided the knowledge base for conducting and reporting on investigations according to ICAO Standards. The *NTSC Policies and*

Procedures Manual, completed in January 2008 under ITSAP, was amended, with the second edition released in March 2010. The ICAO Compliance Validation Mission team informed the NTSC that it met compliance with the ICAO requirements.

Continuation of ITSAP

In the May 2010 Federal Budget, the Australian Government approved the continuation of the ITSAP program for a further four years of cooperation in the transport sector. The renewed package of $14.5 million over the life of the package will provide training and technical assistance, and it will continue to improve aviation, marine, rail, and road transport safety in Indonesia.

Australia has worked closely with the Government of Indonesia on developing a package of measures to address areas identified as key safety priorities by Indonesia. The ATSB will continue to provide staff dedicated to various capacity-building projects, and it will provide ATSB training in both Indonesia and Australia, including opportunities for aviation, marine, and rail investigators to work with their ATSB counterparts for extended periods.

The cooperation between the ATSB and the NTSC is one of the key elements in ensuring lasting transportation safety for the people of Indonesia and foreign travellers to and from Indonesia.

Proactive implementation of safety action by stakeholders, reducing the need to issue formal safety recommendations

Rather than waiting to make formal safety recommendations through a transport safety investigation report, the ATSB prefers to encourage the relevant stakeholders to initiate proactive safety action where appropriate while the investigation is continuing. This approach is considered to deliver better and more immediate results in terms of improvements in safety culture and practices. However, depending on the level of risk associated with a safety issue and the extent of corrective action undertaken by the relevant organisation, a safety recommendation or advisory notice may be issued either during or at the end of an investigation.

A safety recommendation is a formal recommendation by the ATSB to an organisation for it to address a specific safety issue. ATSB safety recommendations focus on stating the problem (i.e. the description of the safety issue). They do not identify specific solutions for reducing risk. A safety advisory notice, in contrast, is formal advice by the ATSB to an organisation that it should consider the safety issue and take action where it believes it is appropriate. A safety advisory notice is a 'softer' output to a safety recommendation. It is used for less significant safety issues, where the available evidence is more limited, or when the target audience is not a specific organisation.

Details of all safety recommendations and safety advisory notices, including responses received relating to safety recommendations, are available at the ATSB's website **www.atsb.gov.au**.

In 2009–10:

- Rail safety stakeholders proactively undertook 14 safety actions relating to 25 safety issues identified during investigations. The ATSB released eight safety recommendations and five safety advisory notices.
- Marine safety stakeholders proactively undertook 34 safety actions relating to 40 safety issues identified during investigations. The ATSB released four safety recommendations and 10 safety advisory notices.
- Aviation safety stakeholders proactively undertook 60 safety actions relating to 46 safety issues identified during investigations. The ATSB released one safety recommendation and two safety advisory notices.

Publish ATSB final investigation reports and make available on ATSB website

There were 90 final investigation reports published by the ATSB. In addition, ten safety research and analysis investigation reports were published. All were placed on the ATSB website, **www.atsb.gov.au**. The ATSB will continue to make all publicly available information accessible online and provide an information and referral service through the toll-free call centre. Improvements to the ATSB's website will make online information more accessible by allowing the use of assistive technologies. For more details, consult the chapter on Communication and Education.

IV Other activities

National Transport Reforms

The ATSB has continued work this financial year on enhancing its role in marine and rail safety investigations across Australia as part of the government's National Transport Reform agenda.

Rail

On 7 December 2009, the Council of Australian Governments (COAG) agreed to the Standing Committee on Transport's advice in relation to the steps necessary to position the ATSB to operate as an enhanced rail investigator. It was agreed that, by the time the single national rail safety regulator is operational on 1 January 2013, the ATSB's role is to be extended, utilising the corporations and interstate trade heads of power to cover almost all commercial rail operations. Implementation of the COAG decision is well underway, including the development of a model for how each state will contribute funding for investigations involving intrastate lines and rail operators, scoping amendments necessary to the TSI Act to reflect the enhanced role, and developing a proposal to integrate the rail safety investigation functions of the independent safety investigation agencies in NSW and Victoria. Work has also progressed in relation to the development of a National Partnership Agreement, which will set out the ATSB's roles and functions under the new arrangements and matters such as funding.

Marine

On 2 July 2009, COAG agreed to implement national regulation for marine safety, with the Australian Maritime Safety Authority (AMSA) becoming the national safety regulator for all commercial shipping in Australian waters. This includes all commercial vessels currently operating solely in state waters. Work progress for this reform is well underway and, like rail, a National Partnership Agreement has been developed which contemplates an expanded role for the ATSB in marine safety investigations. This role would potentially include the investigation of accidents and incidents involving commercial vessels that will be regulated by AMSA. While there is still much work to do to develop this proposal further, it is expected that there would be significant benefits to the safety of commercial vessel operations, particularly relatively high-risk operations like commercial fishing, if the ATSB were to perform systemic safety investigations into selected accidents and other safety occurrences involving those vessels.

TRANSPORT SAFETY INVESTIGATIONS

The ATSB's transport safety investigations result in a published report which includes the factual information relating to the occurrence and the analysis and findings relevant to the circumstance of the occurrence.

The ATSB prefers to encourage early and positive safety action following an accident or incident, and to record such action in its final investigation reports if this is possible, negating the need to issue formal safety recommendations. However, the ATSB will make recommendations when it believes that insufficient safety action may have been taken in relation to a safety issue identified in an investigation.

The safety actions taken by directly involved parties are included in the reports, and any necessary recommendations and/or safety advisory notices are made to address the safety issues identified. The reports do not seek to assign fault or to determine civil or criminal liability. As with similar bodies worldwide, compliance with ATSB safety recommendations is not mandatory; however, organisations are required to advise the ATSB formally within 90 days of their proposed actions in relation to every safety recommendation. All reports are available on the ATSB's website.

Rail investigations

Role

The ATSB Rail Safety Investigation Team conducts investigations into rail safety occurrences (accidents and incidents) on the Defined Interstate Rail Network (DIRN) under the provisions of the *Transport Safety Investigation Act 2003* (TSI Act). Occasionally in the past, if agreed by the Minister, the ATSB has undertaken rail investigations on intrastate rail networks at the request of state and territory authorities. The ATSB also has a mandate from the Australian Transport Council to coordinate the publication of National Rail Occurrence Data from data supplied by the various state and territory rail regulators.

The ATSB works cooperatively with organisations such as the state and territory rail regulators, the Australian Rail Track Corporation, and rail operators, who are best placed to effect changes to improve safety.

Key rail safety activities and results

In 2009–10, the ATSB initiated eight rail safety investigations on the DIRN under the TSI Act from a total of 55 rail accident and incident notifications recorded. The number of notifications and investigations is less than previous years, which may partly be due to a general decline in rail freight operations.

There has been a notable decline in reported level crossing collisions, particularly those involving heavy vehicles. The ATSB has focused significant resources on the investigation of these accidents in recent years, and this work, in combination with the actions of the relevant regulatory bodies, may have contributed to a trend of improved safety in this area.

The ATSB completed 11 investigations, including two in which the ATSB independently chaired investigations initiated by Queensland Transport and conducted under Queensland rail safety legislation. Both of those accidents occurred on north Queensland rail lines and involved a heavy road vehicle colliding with a passenger train. The first collision occurred at the Rungoo level crossing near Ingham on 27 November 2008 and involved a B-Double road train and the Cairns Tilt Train—both train drivers were fatally injured. The second accident occurred only five weeks later, on 1 January 2009, at the Mundoo level crossing near Innisfail and involved a local waste disposal truck and the Sunlander train — the driver of the truck was fatally injured.

The median completion time for the 11 final rail investigation reports was 481 days. The completion time, greater than the 365 day target, was partially the result of required resource reallocation to the two high profile external level crossing investigations, which were completed early in the reporting period in well under 365 days.

The completed investigations related to five level crossing collisions, three derailments, one rolling stock irregularity, one safe-working irregularity, and one track and civil infrastructure irregularity.

As of 30 June 2010, the ATSB was continuing to investigate eight rail safety occurrences.

Key rail safety actions and recommendations 2009–10

In 2009–10, ATSB reports noted 14 rail safety actions that had been taken voluntarily by rail stakeholders in response to 25 safety issues. The actions related to:

- improved maintenance procedures
- improved operational procedures
- implementation of improved auditing processes
- implementation of programs to remove or replace components that presented a high risk of failure.

The ATSB issued eight rail safety recommendations and five safety advisory notices to rail stakeholders. The related safety issues noted in the reports included:

- level crossing safety and risk, and interface agreements between rail track managers and road owners/authorities
- maintenance procedures relating to rolling stock and civil infrastructure
- maintenance standards relating to rolling stock and civil infrastructure
- safe working arrangements related to infrastructure and train management.

Details of all rail safety recommendations and safety advisory notices, including any responses received relating to safety recommendations, are available at the ATSB's website, **www.atsb.gov.au**.

During the period 2006 to 2009, the National Transport Commission developed national rail safety reforms that notably include requirements for road and rail regulatory authorities to have interface agreements. The ATSB's investigation reports provided information to the rail industry on ways to improve rail safety and, in particular, aspects of risk assessment and public education with respect to level crossings.

Rail investigation case study: Derailment of Train 5PS6 near Golden Ridge, WA

Investigation Number: RO-2009-003

On Friday 30 January 2009, freight train 5PS6, operated by Pacific National (PN), was on the Trans-Australian Railway, en route from the Perth Freight Terminal to Sydney. There had been heavy rainfall in the area near Golden Ridge that morning, leading to localised flash flooding, but although a 'Flood Watch' warning had been in place, it had been cancelled about an hour earlier.

Without warning, while travelling at a speed of about 100 km/h, the lead locomotive dropped violently, then lurched up and rolled over onto its side. It ploughed into the wet ground, while behind it, the second locomotive, the crew van, and 18 of the 32 wagons— including those carrying dangerous goods—were also derailed. In the course of the accident, 200 m of track was damaged.

The lead locomotive finally came to rest with the drivers' cabin lying on its right side in a depression at a right angle to the track. The drivers' cabin was distorted by the impact forces, which caused the door to the locomotive vestibule to jam shut. In addition, one of the two external doors was hard against the ground. Fuel lines supplying diesel to the locomotive had ruptured and diesel was flowing out of the fuel tanks, through the locomotive compartments, along the ground and into the depression caused by the derailment. Diesel was pooling in the lower right side of the drivers' cabin. The train drivers, who had suffered only minor injuries, were trapped within the cabin and unable to exit the lead locomotive.

The train driver was able to contact and advise train control of the occurrence using the onboard train radio. During the derailment, the right front windscreen of the lead locomotive had 'popped' open about 15 cm. The third driver was able to exit the crew van and further prise the windscreen open to allow the two drivers to exit the cabin. By this time, a considerable amount of diesel fuel had leaked into the drivers' cabin.

The ATSB investigation determined that the heavy rainfall that morning had led to localised flash flooding which damaged the track formation and ballast, resulting in the derailment of train 5PS6. The washaway had severely damaged the track over several kilometres with the track being suspended in mid-air at various locations. The investigation identified a number of safety issues, which the ATSB brought to the attention of the track manager and train operator. Those issues related to track drainage, identification of severe weather events, availability of hand-held communication devices and escape from the damaged locomotive cabin. An examination of the measures enacted indicated that the management of the risks posed by the dangerous goods being carried on train 5PS6 was effective.

The train operator has since taken or proposed safety action in relation to train evacuation and communication issues. In addition, the ATSB issued three safety advisory notices to the track owner.

The derailed lead locomotive of freight train 5PS6

Rail investigation case study: Derailment of Train 5PS6 near Bates, South Australia

Investigation Number: RO-2008-005

On 19 April 2008, freight train 5PS6, was travelling across South Australia, en route from Perth to Sydney. At approximately 0650 the train was about 13 km east of Bates and moving at about 80 km/h when the locomotive drivers began hearing a 'crack, crack, crack.'

To the drivers, it sounded as though the locomotive wheels had passed over a broken rail. The driver immediately eased off the throttle, but fourteen of the train's 44 wagons derailed. In the course of that derailment, about 800 m of track was damaged. There were, however, no injuries.

The ATSB investigation team's initial observations indicated that the derailment could have been the result of a broken rail. They conducted a metallurgical examination of the fractured rail section and found that a crack almost 20 mm in length had existed in the web of the rail for some time. Over a relatively short period of time, however, this crack had expanded into a fracture extending to the outer surface of the rail.

Technical experts in fracture mechanics were engaged by the ATSB to conduct theoretical finite element, crack initiation and crack growth analysis. This analysis, supported by the findings of this investigation and similar incidents, concluded that any crack of that type is likely to increase in size under rail traffic until, inevitably, the rail fails.

The investigation identified that ultrasonic testing had actually been conducted in the area three days before the derailment of train 5PS6, but no suspected defects were reported. The test data showed a pattern consistent with the initial crack, but it may not have been categorised as a defect as the Australian Rail Track Corporation's Code of Practice did not categorise bolt-hole cracks as defects unless they exceeded 20 mm in length.

Fourteen of train 5PS6's wagons were derailed

The investigation concluded that the rail had probably failed under the previous train but, as the wheels of train 5PS6 passed over the fracture, the impact forces caused the progressive failure of sleepers, a secondary rail fracture and the ejection of a small section of rail.

New maintenance procedures were introduced to reduce the risks related to bolt-hole cracks. Under those procedures, all bolt-hole cracks would be recorded as defects and require removal, irrespective of the crack size. However, the ATSB judged it necessary to issue two safety advisory notices, concluding that there were further opportunities for improvement relating to the ultrasonic testing process and how far a bolt-hole should be from the rail ends before welding.

Marine investigations

Role

The ATSB marine investigation team investigates accidents and incidents involving Australian-registered ships anywhere in the world and foreign ships in Australian waters or en route to Australian ports.

The ATSB works cooperatively with international regulatory authorities, Australia's Commonwealth maritime regulator, the Australian Maritime Safety Authority (AMSA), the state and territory maritime regulatory authorities, other transport safety investigation agencies, ship owners, and operators.

The ATSB prints and distributes copies of marine transport safety investigation reports and safety and educational material nationally and internationally to promote maritime safety in Australia and overseas. Organisations receiving these reports include the international maritime community, Australian and overseas educational institutions, and maritime administrations in Australia and overseas, including the International Maritime Organization (IMO).

Key marine safety activities and results

In 2009–10, the ATSB initiated nine marine transport safety investigations from a total of 97 accident and incident notifications. In addition, assistance was provided to overseas agencies investigating the sinking of the Tongan registered passenger ferry *Princess Ashika*, which sank on 5 August 2009 with major loss of life. Eleven investigations were completed in this time period. The median completion time for those investigations was 334 days, below the 365 day target.

The completed investigations involved two groundings, two collisions, two fatalities and one incident each of serious injury, sinking, flooding and anchor fouling. Those investigations recorded 34 safety actions voluntarily taken by stakeholders (in response to 40 safety issues) and included a total of four safety recommendations and 10 safety advisory notices directed to stakeholders.

At 30 June 2010, the marine investigation team was continuing to investigate 11 marine occurrences.

Key marine safety actions and recommendations 2009–10

In 2009–10, ATSB marine safety investigation reports addressed a range of safety issues through the proactive safety actions, safety recommendations and safety advisory notices noted above. Those safety issues related to:

- ineffective, or ineffectively implemented, safety management systems on board ships resulting in inadequate risk assessment
- ineffective bridge resource management, passage planning and monitoring
- inadequate risk assessment in the safety management systems of ports and pilotage providers in relation to gas pipelines, emergencies, channels and tug use
- deficiencies in search and rescue operations
- inadequate lookouts on board ships and small craft involved in collisions
- failure to stop and render assistance after collision
- inadequate fatigue management.

Details of all marine safety recommendations and safety advisory notices, including responses received relating to safety recommendations, are available at the ATSB's website, **www.atsb.gov.au**.

Marine investigation case study: Collision between *Silver Yang* and *Ella's Pink Lady*

Investigation Number: 268-MO-2009-008

At about 0150 local time on 9 September 2009, in a position about 15 miles to the east of North Stradbroke Island, Queensland, the Australian registered single-handed yacht *Ella's Pink Lady* collided with the Hong Kong registered bulk carrier *Silver Yang*.

About five minutes before the collision, *Ella's Pink Lady*'s skipper checked for ships in the area before going to bed for a short sleep. However, she did not detect *Silver Yang*.

About three minutes later, *Silver Yang*'s watch keeper observed a single green light on the ship's port bow, and the lookout to put the helm over to starboard 20°, then hard-to-starboard. However, this action did not prevent the two vessels from colliding.

Ella's Pink Lady was dismasted as a result of the collision. The skipper checked that her vessel was seaworthy and then called her parents who, in turn, notified the Australian Rescue Coordination Centre (RCC). The RCC called the yacht and confirmed that the skipper did not require assistance. The RCC reported the incident to the Queensland Police and, together, the RCC and the police continued to monitor the situation.

About 20 minutes after the collision, *Ella's Pink Lady*'s skipper called *Silver Yang* on very high frequency (VHF) radio channel 16. The ship's watch keeper eventually replied, and was able to ascertain that the yacht's skipper was safe, but he did not offer her any form of assistance.

Ella's Pink Lady's skipper was able to cut the headsail free, retrieve the mast, the mainsail and the rigging on board and motor the damaged yacht to Southport, Queensland, where it berthed at 1255.

Ellas's Pink Lady entering Southport after the collision (image courtesy of Bruce & Suzanne Arms/BWR Multihulls)

The ATSB investigation found that *Ella's Pink Lady* was not fitted with a passive radar reflector and that, at the time of the collision, neither the yacht's skipper nor the ship's watch keepers were keeping a proper lookout or appropriately using the available electronic aids to navigation to make a full appraisal of the situation and the risk of collision. The investigation also found that, following the collision, *Silver Yang*'s watch keeper did not initiate contact or offer any form of assistance to *Ella's Pink Lady*'s skipper, and that, when contacted by the yacht's skipper via VHF radio, he could not be clearly understood because of his poor English.

Safety actions were taken to address these safety issues, and the ATSB issued two safety advisory notices to industry. As a consequence of the investigation, the radar detectability of *Ella's Pink Lady* was enhanced before its skipper departed on a round-the-world solo voyage, attention was drawn to the detectability limitations of Class B automatic identification system transmissions, and the international requirement to render assistance following a collision was highlighted.

Marine investigation case study: Rupture of a submarine gas pipeline by the Hong Kong–registered container ship *APL Sydney*

Investigation Number: 260-MO-2008-012

On the afternoon of 13 December 2008, the Hong Kong-registered container ship *APL Sydney* ruptured the submarine ethane gas pipeline in Port Phillip after dragging its anchor across the pipeline in strong gale force winds.

The ship's anchor had been let go too close to the pipeline in poor weather conditions, and insufficient anchor cable was deployed. Inadequate action was taken on board the ship and at harbour control to prevent the anchor from snagging the pipeline. After snagging the pipeline, the anchor windlass failed. Instead of releasing the fouled anchor, an attempt was made to clear it and this led to the pipeline rupture.

After the rupture, *APL Sydney* was manoeuvred clear of the escaping gas and the pipeline. There were no injuries, and the pipeline was isolated. The anchor cable was cut and left in the anchorage with the anchor. Repairs to the pipeline took several months.

APL Sydney

The ATSB investigation identified 10 significant safety issues in relation to the port's risk management with respect to the pipeline and anchorage boundaries and its shipping control procedures, along with the ship's safety management system, the pilotage company's safety management system, and the windlass failure.

Safety action to address all of the safety issues identified was proactively taken by the relevant parties. Significant amongst these was a risk assessment of Melbourne anchorage which led to its boundaries being revised with individual ship berths for anchoring. In addition, reviews of relevant procedures in the safety management systems of the ship, the port and the pilotage company were undertaken to prevent similar incidents in the future. The windlass manufacturer and the ship's classification society also took action aimed at improving operator safety.

The incident and the ATSB safety investigation report into it are to be used as a case study in bridge resource management and marine pilot training courses in Australia and overseas.

Aviation investigations

Role

The ATSB's aviation safety investigation branch investigates accidents and other occurrences involving civil aircraft in Australia. It does so in accordance with Annex 13 to the Convention on International Civil Aviation (Chicago Convention 1944), which has legal force through the TSI Act.

The ATSB may also assist in investigations of accidents and serious incidents involving Australian–registered aircraft overseas, or with overseas investigations involving foreign aircraft if an overseas investigating authority seeks assistance and the ATSB has suitable available resources.

The ATSB works cooperatively with organisations such as the Civil Aviation Safety Authority (CASA), Airservices Australia, and aircraft manufacturers and operators, who are best placed to effect changes to improve safety.

Key aviation safety activities and results

In 2009–10, the ATSB initiated 61 Level 4[3] and above safety investigations from approximately 15,100 accident and incident notifications received (8,393 were classified as aviation occurrences). Of those, 10 were downgraded and continued as Level 5 Factual Investigations.[4] In addition, three were discontinued as a consequence of the ATSB's primary focus on enhancing safety with respect to fare-paying passengers and, in particular, those transport safety matters that may present a significant threat to public safety.

During 2009–10, the ATSB completed 49 Level 4 and above aviation investigations. The median time for the completion of Level 4 and above investigations was 439 days, a decrease from 463 days last year but still well above the target of 365 days.

The median completion time was significantly affected by the release of a number of older, less complex investigations that were delayed due to higher priority tasking and the ATSB's involvement in four significant Level 2 investigations into passenger transport accidents.

In line with aviation safety stakeholder expectations, the ATSB has commenced a number of initiatives to improve the timeliness of its aviation safety outputs. This includes a restructure of the aviation safety investigation branch to re-establish regional managers in the Perth and Brisbane field offices and the development of a project management approach to the conduct of investigations. This approach is planned to be in place by the end of calendar year 2010.

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3 See the earlier section 'Investigation priorities and classifications' for definitions of investigation levels.

4 In 2009–10, 19 Level 5 investigations were completed. That investigation methodology and output was adopted in December 2009.

Key aviation safety actions and recommendations 2009–10

In 2009–10, ATSB reports noted 60 aviation safety actions that had been taken voluntarily by aviation stakeholders relating to Level 4 and higher investigations (in response to 46 safety issues). These included actions related to:

- introduction of formal risk analysis before changes to aircraft operating procedures
- improved operational procedures
- definition of criteria for stabilised approaches
- modification of aircraft radars.

In addition, a number of proactive safety initiatives were undertaken by stakeholders in cases where no safety issue was identified.

The ATSB issued one aviation safety recommendation and two safety advisory notices to aviation stakeholders. The related safety issues noted in the reports included:

- the lack of regulatory requirement for simulator training
- the lack of information or guidance to pilots for flight in turbulent conditions, increasing the risk of an inadequate pilot response to an encounter with severe turbulence
- the introduction of changes to standard operating procedures without first conducting an appropriate risk analysis.

Details of all aviation safety recommendations and safety advisory notices, including any responses received relating to safety recommendations, are available at the ATSB's website, **www.atsb.gov.au**.

At 30 June 2010, the ATSB was investigating 71 Level 4 and above aviation occurrences, down from a high of 106 in 2009–10. That reduction is the result of a strategy to reduce the number of investigations on hand in order to release investigation resources to concentrate on an increased number of systemic investigations.

Aviation investigation case study: go-around event at Melbourne aerodrome

Investigation Number: AO-2007-044

On 21 July 2007, an Airbus Industrie A320-232 aircraft was being operated on a scheduled international passenger service between Christchurch, New Zealand and Melbourne, Australia. At the decision height on the instrument approach into Melbourne, the crew conducted a missed approach as they did not have the required visual reference because of fog. The pilot in command did not perform the go-around procedure correctly and, in the process, the crew was unaware of the aircraft's current flight mode. The aircraft descended to within 38 ft of the ground before climbing.

The aircraft operator had changed the manufacturer's standard operating procedure for a go-around and, as a result, the crew was not prompted to confirm the aircraft's flight mode status until a number of other procedure items had been completed. As a result of the aircraft not initially climbing, and the crew being distracted by an increased workload and unexpected alerts and warnings, those items were not completed. The operator had not conducted a risk analysis of the change to the procedure and did not satisfy the incident reporting requirements of its safety management system (SMS) or of the TSI Act.

Two significant and three minor safety issues were identified as a result of this investigation. In response, the aircraft operator changed its go-around procedure to reflect that of the aircraft manufacturer and amended its SMS to require a formal risk management process in support of any proposal to change an aircraft operating procedure. The ATSB brought the safety implications of that action to the attention of aircraft operators, and the aircraft manufacturer has enhanced its published go-around procedures to emphasise the critical nature of the flight crew actions during a go-around.

The aircraft operator has also commenced a review of its flight training requirements, has invoked a number of changes to its document control procedures, and has revised the incident reporting requirements of its SMS. The Civil Aviation Safety Authority is reviewing the proposed Civil Aviation Safety Regulation Part 142 as a matter of priority to address the provision of flying training by third party training providers.

The results of this investigation are indicative of the desire by aviation stakeholders at all levels to enhance aviation safety, and reinforces the ATSB preference to encourage early and positive safety action by stakeholders following an accident or incident. Proactive safety action by stakeholders negates the need for the issue of formal aviation safety recommendations.

Aviation investigation case study: Fuel starvation at Jundee airstrip

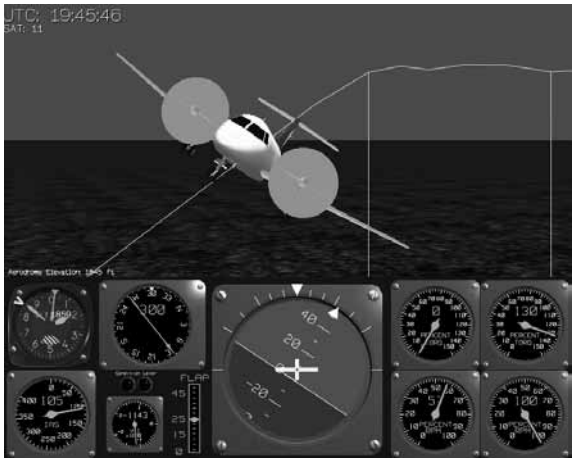
Investigation Number: AO-2007-017

On 26 June 2007 at 0639 Western Standard Time, an Empresa Brasileira de Aeronáutica S.A. EMB-120ER aircraft, registered VH-XUE, departed Perth, Western Australia on a contracted passenger charter flight to Jundee Airstrip. There were two pilots, one flight attendant, and 28 passengers on the aircraft.

At 400 ft above ground level, on final approach to the airstrip, the aircraft unexpectedly drifted left of the runway centreline. The crew decided to initiate a go-around, whereupon the aircraft violently rolled and yawed left. The crew had difficulty controlling the aircraft and narrowly avoided colliding with the ground. Not until three minutes later, when they retracted the landing gear, did the crew regain proper control of the aircraft.

The ATSB investigation established that the left engine had sustained a total power loss following fuel starvation. That had occurred because the left fuel tank was empty. The subsequent investigation report noted that 'it is likely that the unexpected behaviour of the aircraft alarmed and focussed the crew to the extent that they were unable to function effectively as a crew.'

The ATSB investigation identified multiple safety factors associated with the fuel quantity indicating system, the ability of the crew to recognise the left engine power loss, and their performance during the go-around. There were clear indications that the operator's fuel quantity measurement procedures and practices were not sufficiently robust to ensure that a quantity indication error was detected. The crew's endorsement and other training did not include simulator training and had not adequately prepared them for the event. There was no EMB-120 flight simulator facility in Australia and no Australian regulatory requirement for simulator training. Because of this, neither crew member had ever been exposed to an engine power loss situation on late final approach, either in training or line operations. As the report noted, 'the situation was, therefore, novel and unique for the crew.'



Frame from the ATSB's flight data animation of the aircraft

After the incident, the operator introduced revised procedures for measuring fuel quantity and the Civil Aviation Safety Authority (CASA) initiated a project to amend the guidance to provide better clarity and emphasis. In March 2009, an EMB-120 flight simulator came into operation in Melbourne, Victoria. A workshop and discussion forum was conducted on 27 to 28 April 2009 for Australian EMB-120 aircraft operators. All those operators were expected to commence utilising the simulator for flight crew endorsement training following that workshop.

Despite the actions undertaken by CASA to facilitate increased use of simulators for endorsement and other training, the ATSB remained concerned that there was no regulatory requirement for simulator training when a suitable simulator is available in Australia, and recommended that CASA address the issue.

CASA has accepted the recommendation, and has advised that a Notice of Proposed Rule Making relating to simulator training requirements will be released by the end of July 2010 with a response period of six weeks. Final rule making is expected to be accomplished toward the end of the calendar year.

Aviation investigation case study: Instrument departure procedure design

Investigation Number: AI-2008-038

Following the construction of a new hangar adjacent to runway 28 Right (28R) at Archerfield Airport, Queensland, the ATSB received a number of submissions asserting that the building infringed safety standards and reduced flight safety. In particular, the reporters were concerned with the clearance from the hangar, maintaining that it represented a dangerous obstacle to aircraft taking off and landing. Airports are required to have obstacle-free zones, defined by obstacle limitation surfaces (OLS) – imaginary sloping walls that surround the runway and outline the airspace that must be kept clear. The zones are required not only by Australian standards, but also by the International Civil Aviation Organization (ICAO).

Drawing on an independent third-party review, the ATSB determined that the building did not breach the OLS. The ATSB also conducted an initial examination of the instrument departure procedure from the runway. An instrument departure procedure allows pilots to use their aircraft instruments as a primary reference to take off in poor weather when using visual references only is not possible. The examination found that while the procedure complied with the extant requirements, there was a dangerous ambiguity in the instructions for designing instrument departure procedures. That ambiguity could lead to inconsistent expectations about the extent of clearance from obstacles provided to aircraft when pilots were following an instrument departure procedure and had the very real potential to increase the risk of a collision with an obstacle. As a result, the ATSB commenced a safety issue investigation.

As a result of that investigation, the Civil Aviation Safety Authority and Airservices Australia have, in consultation, reviewed their understanding of how the design standards for instrument departure procedures should apply in Australia. They have also re-examined the runway 28 instrument departure procedure at Archerfield in the light of that review and have advised that they intend to amend the requirements for instrument departures from runway 28R.

The potential for inconsistent interpretation of the instrument departure procedure design requirements has also been notified to the International Civil Aviation Organization instrument flight procedures panel, which monitors the international standards for the design of instrument procedures.

Runway 28R Archerfield, (image from Google Earth)

SAFETY ACTIONS AND RECOMMENDATIONS

The object of a safety investigation is to identify and reduce safety-related risk. The ATSB's contribution to the reduction of safety-related risk is through the facilitation of safety action arising from safety issues identified by the ATSB during the course of its investigations.

The ATSB prefers to encourage the relevant stakeholder(s) to initiate proactive safety action that addresses the identified safety issues. Nevertheless, the ATSB may use its power to make a formal safety recommendation either during or at the end of an investigation, depending on the level of risk associated with a safety issue and the extent of corrective action already undertaken by the relevant stakeholder.

When safety recommendations are issued, they focus on clearly describing the safety issue of concern rather than providing instructions or opinions on a preferred method of corrective action. As with equivalent overseas organisations, the ATSB has no power to enforce the implementation of its recommendations. It is a matter for the body to which an ATSB recommendation is directed to assess the costs and benefits of any particular means of addressing a safety issue.

When the ATSB issues a safety recommendation to a person, organisation or agency, the recipient must provide a written response within 90 days. That response must indicate whether they accept the recommendation, any reasons for not accepting part or all of the recommendation, and details of any proposed safety action to give effect to the recommendation. The ATSB can also issue safety advisory notices suggesting that an organisation or an industry sector considers a safety issue and takes action where it believes it appropriate. There is no requirement for a formal response to an advisory notice, although the ATSB will publish any response it receives.

In 2009–10 stakeholders implemented proactive safety action in the majority of relevant cases: from a total of 111[5] safety issues identified across 90 investigations, 108[6] separate proactive safety actions were taken. In addition, 13 safety recommendations and 17 safety advisory notices were issued to stakeholders. Table 3 provides further details for each mode.

Table 3: Safety issues identified and safety actions taken

TRANSPORT MODE	SAFETY ISSUES	PROACTIVE SAFETY ACTIONS	SAFETY ADVISORY NOTICES	RECOMMENDATIONS
Aviation	46	60	2	1
Marine	40	34	10	4
Rail	25	14	5	8
Total	111	108	17	13

In the Aviation White Paper *Flight Path to the Future*, released in December 2009, the government announced that the ATSB would provide a status report on formal safety recommendations issued by the ATSB in its Annual Report to the Minister. The report must indicate whether the ATSB's recommendations have been accepted, partially accepted, or rejected by the organisation or agency concerned. Any justification for the partial acceptance or rejection, as well as the implementation status of any proposed safety action for the recommendation, must also be included in the report.

Of the 13 safety recommendations that were issued by the ATSB in 2009–10, 10 were accepted, one was partially accepted and no recommendations were rejected. The ATSB was awaiting a response to one safety recommendation issued to the Sierra Leone International Ship Registry on 9 April 2010 (MO-2008-003-SR-049 *Inaccurate Certification*) and due on 9 July 2010. In addition, the response to a safety recommendation issued to the Australian Rail Track Corporation on 12 December 2009 (RO-2008-009-SR-029 *ARTC Code of Practice*) was overdue.[7]

Table 4 provides details of the 13 safety recommendations issued by the ATSB in 2009–10.

5 In addition, a further 13 safety issues were identified relating to two level crossing collision investigations conducted by the ATSB on behalf of the Queensland Government. The Queensland Government is responsible for monitoring the implementation of safety actions relevant to those investigations.

6 For some safety issues, more than one stakeholder may take proactive action to address the issue.

7 The ATSB has since received a formal response in which the ARTC has accepted the safety recommendation.

Table 4: Safety Recommendations issued in 2009–10

TRANSPORT MODE	RECOMMENDATION NUMBER	RECOMMEND-ATION TITLE	RECOMMENDATION DESCRIPTION	RECOMMEND-ATION ISSUED TO	ISSUE DATE	ACCEPT-ANCE STATUS	CLOSED DATE	RECOMMEND-ATION STATUS AS AT 30 JUNE 2010
Aviation	AO-2007-017-SR-084	Simulator training in Australia	There was no regulatory requirement for simulator training in Australia.	Civil Aviation Safety Authority	8/07/2009	Accepted		Monitor
Marine	MO-2008-009-SR-020	Work permit procedure implementation	The work permit system had not been effectively implemented on board the ship. Consequently, most maintenance and repair work was being carried out by ship's personnel without the work permits and 'Danger: Do Not Operate' tags that were required by the ship's procedures.	Parakou Shipping	29/09/2009	Accepted	11/11/2009	Closed – action taken
Marine	MO-2008-010-SR-039	Safety Bulletin	While the Volcano Company safety bulletin warned of the dangers associated with servicing the VJ type burner, it did not inform operators that the burner could be replaced with a VJP burner (a similar burner fitted with a diesel pilot burner), or recommend that existing oil firing units could be modified.	Volcano Company	22/10/2009	Accepted	5/01/2010	Closed – action taken
Marine	MO-2009-004-SR-008	ILO & STCW fatigue management	Both the 6 hours on/6 hours off work routine for watchkeepers and the modified work routine for deck ratings used on board Thor Gitta, while complying with the ILO 180 and STCW requirements for rest, probably resulted in a cumulative level of fatigue in the crew.	Danish Maritime Authority	16/12/2009	Partially accepted	2/02/2010	Closed – partial action

Table 4: Safety Recommendations issued in 2009–10 (continued)

TRANSPORT MODE	RECOMMENDATION NUMBER	RECOMMEND-ATION TITLE	RECOMMENDATION DESCRIPTION	RECOMMEND-ATION ISSUED TO	ISSUE DATE	ACCEPT-ANCE STATUS	CLOSED DATE	RECOMMEND-ATION STATUS AS AT 30 JUNE 2010
Marine	MO-2008-003-SR-049	Inaccurate certification	The ship's certification was issued by a management company to itself on behalf of the Republic of Sierra Leone solely with the purpose of allowing the ship to sail on an international voyage and did not represent the ship's actual management or that any effective inspections of the ship or audits of the ship's safety management system had taken place.	Sierra Leone International Ship Registry	9/04/2010			Released*
Rail	RO-2008-001-SR-021	Interface Coordination Plan	At the time of the collision, the Australian Rail Track Corporation and the Port Adelaide Enfield Council did not have an interface coordination plan to manage the risks associated with the Stirling Street level crossing interface, including the installation and maintenance of pavement marking.	Port Adelaide Enfield City Council	6/10/2009	Accepted		Monitor
Rail	RO-2008-001-SR-022	Lack of Road Pavement markings	At the time of the collision and at times in the past, the required road pavement markings have not been present or appropriately maintained on the sealed surface of Stirling Street.	Port Adelaide Enfield City Council	6/10/2009	Accepted		Closed – action taken

Notes:

*The response to recommendation MO-2008-003-SR-049 *Inaccurate Certification* was not due until 9 July 2010.

Table 4: Safety Recommendations issued in 2009–10 (continued)

TRANSPORT MODE	RECOMMENDATION NUMBER	RECOMMEND-ATION TITLE	RECOMMENDATION DESCRIPTION	RECOMMEND-ATION ISSUED TO	ISSUE DATE	ACCEPT-ANCE STATUS	CLOSED DATE	RECOMMEND-ATION STATUS AS AT 30 JUNE 2010
Rail	RO-2008-001-SR-025	Interface Coordination Plan	At the time of the collision, the Australian Rail Track Corporation and the Port Adelaide Enfield Council did not have an interface coordination plan to manage the risks associated with the Stirling Street level crossing interface, including the installation and maintenance of pavement marking.	Australian Rail Track Corporation	6/10/2009	Accepted		Monitor
Rail	RO-2008-001-SR-026	Issue of Heavy Vehicle Permits	The Australian Rail Track Corporation had not been approached as part of the SA Department for Transport, Energy and Infrastructure's (DTEI) process of issuing Heavy Vehicle Permits for routine 'fixed term' Restricted Access Vehicle operations. Consequently, the process may preclude the opportunity to determine all risks associated with a railway level crossing or identify changes to a railway level crossing risk profile that may have occurred over a period of time.	Department for Transport, Energy and Infrastructure (SA)	6/10/2009	Accepted	27/01/2010	Closed – action taken
Rail	RO-2008-009-SR-029	ARTC Code of Practice	The ARTC Code of Practice does not clearly address the possibility that a series of track irregularities, even minor ones which do not exceed intervention limits, could cause an undesirable harmonic response in some rail vehicles.	Australian Rail Track Corporation	21/12/2009			Released**

Notes:

**The overdue response to RO-2008-009-SR-029 *Interface Coordination Plan* was subsequently received after 30 June 2010.

Table 4: Safety Recommendations issued in 2009–10 (continued)

TRANSPORT MODE	RECOMMENDATION NUMBER	RECOMMEND-ATION TITLE	RECOMMENDATION DESCRIPTION	RECOMMEND-ATION ISSUED TO	ISSUE DATE	ACCEPT-ANCE STATUS	CLOSED DATE	RECOMMEND-ATION STATUS AS AT 30 JUNE 2010
Rail	RO-2008-009-SR-030	Loose and broken wedge wear plates	The trailing bogie of wagon RCPF-31882C was found to have loose and broken wedge wear plates. It could not be verified whether the wedge wear plates had broken free before or during the derailment sequence. However, if the condition had existed prior to the derailment, it is likely that body roll induced while traversing a series of track irregularities could result in undamped harmonic oscillations.	Pacific National Pty Ltd	21/12/2009	Accepted	27/04/2010	Closed – action taken
Rail	RO-2008-009-SR-031	Tread crack	Examination of wagon RCPF-31882C revealed a crack on the tread of a wheel on the second axle of the leading bogie. While not contributing to this derailment, if the crack were to develop to such an extent that the wheel tread completely fractured, the risk of derailment would increase significantly.	Pacific National Pty Ltd	21/12/2009	Accepted	27/04/2010	Closed – action taken
Rail	RO-2009-002-SR-011	Manual systems of train management	Manual systems of train management, such as Special Proceed Authority working, are used when interlocked/engineered systems are not available. However, manual systems are subject to human error and increase the risk of safeworking irregularities/incidents when compared to interlocked/engineered systems of safeworking.	Australian Rail Track Corporation	11/12/2009	Accepted	11/05/2010	Closed – action taken

Safety recommendations that were partially accepted or rejected

MO-2009-004-SR-008 *International Labour Organization and Seafarer's Training, Certification and Watchkeeping Code fatigue management*

Safety Issue:

Both the 6 hours on/6 hours off work routine for watchkeepers and the modified work routine for deck ratings used on board the general cargo ship Thor Gitta*, while complying with the ILO 180 and STCW requirements for rest, probably resulted in a cumulative level of fatigue in the crew.*

The Danish Maritime Authority (DMA) has advised that it recognises the use of programs like Fatigue Audit InterDyne® to indicate the possibility of fatigue, but regards the indications given by such programs only as normative and not as given proof.

It is the opinion of the DMA that the six hours on/off work routine for watchkeepers and the modified routine for deck ratings on board *Thor Gitta* does not constitute a problem as long as the hours of rest are in compliance with the Order, ILO Convention 180 and part A, Chapter VIII of the STCW code for crewmembers engaged in watchkeeping.

The DMA disagrees with the statements indicating that the roster of the able-bodied seaman (AB) and the work routine for watchkeepers probably results in a cumulative level of fatigue in the crew.

The DMA, in 2008, established a procedure on examination of rest and work hours, as well as outlook, whenever a Danish or Greenlandic ship is involved in grounding or collision or has a very serious accident.

In these cases, the Investigation Division gathers relevant information and evaluates the information before forwarding it to various departments within the DMA for further consideration. The considerations focus on whether there have been violations of rules in force. Consideration also focuses on questions in relation to the manning of ships and possible need of changes.

Safety recommendations for which safety action has not yet been implemented

As at 30 June 2010, three safety recommendations were classified with a status of MONITOR. While the stakeholders had accepted the recommendations, they had not yet finalised the implementation of safety action to address the identified safety issues.

AO-2007-017-SR-084 Simulator Training in Australia

Safety issue:

There was no regulatory requirement for simulator training in Australia.

The Civil Aviation Safety Authority (CASA) has accepted the recommendation. CASA advised that a Notice of Proposed Rule Making relating to simulator training requirements will be released by the end of July 2010 with a response period of six weeks. Final rule making is expected to be accomplished toward the end of the calendar year.

RO-2008-001-SR-021 Interface coordination plan

Safety issue:

At the time of the level crossing collision, the Australian Rail Track Corporation and the Port Adelaide Enfield Council did not have an interface coordination plan to manage the risks associated with the Stirling Street level crossing interface, including the installation and maintenance of pavement marking.

The Port Adelaide Enfield City Council has accepted the recommendation. The Council is awaiting the drafting of Interface Agreements by the SA State Level Crossing Advisory Committee. Also, the Council has advised that they are currently working with the Department of Transport, Energy and Infrastructure (DTEI) Level Crossing Unit in relation to DTEI's survey and assessment of level crossings in SA.

RO-2008-001-SR-025 Interface coordination plan

Safety issue:

At the time of the collision, the Australian Rail Track Corporation and the Port Adelaide Enfield Council did not have an interface coordination plan to manage the risks associated with the Stirling Street level crossing interface, including the installation and maintenance of pavement marking.

The Australian Rail Track Corporation (ARTC) has accepted the recommendation. ARTC has been working towards establishing an interface agreement with the SA DTEI for several years. It is anticipated that once a model agreement is established, negotiations with local government agencies will progress at a significantly faster rate.

Negotiations with local government organisations, if not progressed as a block via the Local Government Association, will need to be progressed by individual negotiation with each interfacing council.

If the latter situation is the case, ARTC reserves the right to prioritise negotiations based on a number of interfaces and perceived risk to the safety of rail operations.

COMMUNICATION AND EDUCATION

Fostering safety awareness is one of the core components of the ATSB's role. This responsibility consists not only of releasing and publishing rail, marine and aviation safety investigation and research reports, but also summaries of safety action and safety recommendations. In addition, the ATSB facilitates public communication and media activities, and maintains the ATSB website. Through its information dissemination, the ATSB aims to facilitate industry and public safety awareness, knowledge, and action.

Media

Community interest in the ATSB's transport investigation activities and findings requires a well-planned process for a coordinated media response. The ATSB can be reached through its media contact officer or rostered duty officer 24 hours a day, seven days a week. It maintains a 24-hour contact number for enquiries at 1800 020 616. During 2009–10, the ATSB received in excess of 1,000 daytime telephone calls from members of the public and media organisations requesting updates of investigations and an average of five out-of-hours calls per day.

In 2009–10, the ATSB organised eight media conferences, including three on-site media briefings related to aviation and marine investigations. Those media updates helped ensure that the extensive media coverage of ATSB activities, in particular the reporting of the progress and results from transport accident investigations, was informative and helped to promote the ATSB's contribution to transport safety.

Communication and stakeholder research

In March 2010, the ATSB engaged research consultants to undertake research with our key industry stakeholders and members of the community.

The aim of the research was to inform the development of a comprehensive communication and education strategy to help the ATSB meet the requirements detailed in the *Transport Safety Investigation Act 2003* (TSI ACT) and the ATSB's Statement of Intent. Those requirements stipulate that the ATSB must communicate any factors that contribute to transport safety accidents and other safety occurrences to the transport industry and the general public.

The research comprised one-on-one interviews, mini focus groups and an online survey with around 678 participants. The broad findings of the research revealed that:

- The majority of respondents (70 per cent) believe the ATSB's role is extremely important, with most (89 per cent) agreeing that it was very important to further improve transport safety communication and awareness.
- The ATSB is performing well, with 86 per cent of respondents who have had dealings with the ATSB rating its performance based on direct personal experiences as good or better.
- Timeliness in relation to communication and completion of investigations and closing cases was rated lowest in terms of overall performance (49 per cent) and something the ATSB should improve.
- The majority of respondents considered the most effective way to deliver communications (i.e. investigation reports, research and data reports, news, and general transport safety information) was online through the ATSB website and through regular emails and alerts with information on key safety messages.

A draft ATSB communication and education strategy based on the research results is being developed for release for industry consultation in early 2010–11. This strategy will be further refined to reflect stakeholders' feedback.

Information requests

During 2009–10, the ATSB responded to an estimated 1500 e-mail and telephone requests for safety information. The timely responses ranged from giving verbal information on transport safety-related issues to distributing accident and incident investigation reports, research and analysis reports and safety occurrence data, public safety education, and ATSB corporate materials.

Publishing services

The ATSB continued to provide quality control of publications produced internally and externally, as well as maintaining its corporate identity and website. This helped maintain and enhance the international reputation of the ATSB as Australia's national agency for transport safety investigations.

Once approved by the ATSB Commissioners, the ATSB disseminates investigation and research reports along with summaries of safety action to the Minister, regulatory authorities, directly-involved parties, those with a special interest in the investigation, the industry and members of the public.

Users of the ATSB website can access information by selecting navigation links within each transport mode, or by searching directly for specific information using a customised search engine. The site contains:

- aviation, marine and rail safety investigation reports
- reporting forms for both mandatory and confidential transport safety reporting systems
- research and analysis reports
- accident statistics
- safety recommendations
- media alerts and releases
- speeches and 'audio grabs' of media briefings
- safety articles and links of interest
- a free 'subscription' information service.

Users can request copies of ATSB published material by telephoning 1800 020 616 or via email at **atsbinfo@atsb.gov.au**.

The site's online notification forms for accidents and incidents, the aviation and marine confidential reporting schemes (REPCON and REPCON Marine), and the Aviation Self Reporting Scheme (ASRS), provide options for reporting transport accidents and incidents and submitting confidential reports. The site's free subscription information service continues to announce new releases and developments to interested parties and industry stakeholders by regular email notifications, which may be customised to provide information on specific modes to individual subscribers.

In 2009–10, the ATSB website attracted 228 489 unique visitors. The number of hits increased markedly following the release of high-profile information or reports, particularly in the aviation mode.

Participation in safety forums

During 2009–10, the ATSB participated in several safety forums. Participation helps the ATSB communicate various safety messages, maintain its industry contacts, and keep informed on relevant policy and technical issues. The ATSB executive, investigation, communications and technical staff attended, presented, and/or provided training at various forums, including:

- International Civil Aviation Organization (ICAO) High Level Safety Conference, Montreal
- Australian Maritime College navigation simulator
- Advanced Marine Pilots Training Courses, Sydney
- Marine Accident Investigators' International Forum, Cyprus and Durban

- Australasian Marine Pilots Institute Conference
- Marine Accident Investigators Forum in Asia
- Pacific International Maritime Conference, Sydney
- Maritime Safety Conference (APAC) in Melbourne
- ICAO Bangkok—Cooperative Development of Operational Safety and Continuing Airworthiness Programme
- Aircraft Accident Investigation Course at the Singapore Aviation Academy
- Aircraft Accident Crisis Preparedness and Management Conference, Singapore
- Asia–Pacific Economic Cooperation Capacity Building Workshop on Air Accident Investigation, Singapore
- Singapore International Accident Investigation Forum
- Ninth Australian Aviation Psychology Association Symposium
- Disaster Victim Identification course run by Northern Territory Police in Darwin
- Australian & New Zealand Societies of Air Safety Investigators Conference, Canberra
- Swinburne Aviation Seminar, Melbourne
- Accident Investigator Recorder Meeting, Ottawa, Canada
- Marine Accident Investigation Branch Voyage Data Recorder Conference, Southampton, UK
- ICAO Flight Recorders Working Group, Montreal, Canada
- Trimble Roadshow
- Australian Defence Force Academy, Canberra
- Australian Aviation Psychology Association Forum
- American Institute of Aeronautics and Astronautics meeting
- Royal Federation of Aero Clubs Australia conference
- Australian Aero Club meeting
- Australian Aviation Wildlife Hazard Group meeting
- the International Rail Safety Conference, Sweden
- the AusRAIL Plus 2009 Conference, Adelaide
- the Rail Safety 2010 Conference, Melbourne
- the Railway Technical Society of Australasia
- the Permanent Way Institution convention, Sydney
- International Air Safety Seminar, Beijing
- the Local Road Safety and Engineering conference, Sydney.

JUDICIAL PROCEEDINGS

In 2009–10, the ATSB's safety investigators appeared as witnesses in one civil proceeding and five coronial inquests. Evidence was given in a manner consistent with the ATSB's functions under the *Transport Safety Investigation Act* (TSI Act).

Civil Proceedings

Subsection 12AA(3) of the TSI Act states that it is specifically not a function of the ATSB to apportion blame or provide the means to determine liability. Because of this, the information protection provisions of the TSI Act usually prevent investigators giving evidence in civil proceedings other than for the purpose of attesting to the chain of evidence with respect to physical components that had been in the ATSB's custody. Evidence was given in one civil proceeding for this purpose.

Cifuentes v Fugro Spacial Solutions P/L [2009] WASC 316 — re VH-ANV

ATSB investigators gave evidence as non-parties in civil proceedings arising out of a single aircraft accident that occurred in August 2003 at Jandakot Airfield, Western Australia (WA). Two persons were fatally injured and four suffered serious injury. The civil claim was heard in the Supreme Court of WA through August 2009. The evidence of the ATSB Investigators was accepted by the court in its findings.

Coronial inquests

At coronial inquests ATSB investigators give evidence to detail the ATSB's findings in its investigation report. Although the inquest is a separate and independent process, the ATSB recognises that an objective of the inquest is to prevent the accident from happening again. It is therefore necessary that the inquest have access to the expertise of ATSB investigators to explain its findings.

VH-OAO (ATSB investigation 200503265)

ATSB investigators gave evidence at a coronial inquest into a single aircraft accident that occurred in July 2005 at Mt Hotham in Victoria where three persons were fatally injured. The coronial inquiry before the State Coroner of Victoria took place in May and July of 2009. Findings are pending.

VH-LIS (ATSB investigation AO-2007-066)

ATSB investigators gave evidence at a coronial inquest into a single aircraft accident that occurred in December 2007 at Lake Liddell, New South Wales, where the pilot of an experimental aircraft was fatally injured. The matter was heard in July of 2009. The Coroner supported the ATSB recommendation that risk analysis be submitted to CASA before experimental certificates are issued. CASA accepted that recommendation.

VH-HBS (ATSB investigation 200600979)

On 14 September 2009 the Queensland State Coroner handed down his findings into the helicopter accident on 21 February 2006. The pilot and the three passengers on board were fatally injured. Evidence concerning this matter had been given by ATSB personnel at the coronial inquest in April 2009. The Coroner supported the conclusions reached by the ATSB. The Coroner agreed that the overweight state of the helicopter was a contributing factor.

VH-MVP (ATSB investigation 200303633)

ATSB investigators gave evidence at a coronial inquest into a single aircraft accident that occurred in August 2003 in Camden New South Wales (NSW), where the pilot was fatally injured. The coronial inquest before the NSW Deputy State Coroner took place in Camden in December 2009. The Coroner's findings were consistent with those of the ATSB that fuel starvation was the most probable explanation.

VH-UXF (ATSB investigation 200304074)

ATSB investigators gave evidence at a coronial inquest into a single helicopter accident that occurred in September 2003 where the pilot and his passenger were fatally injured. The ATSB investigation found that the clutch shaft to the main rotor blades failed. The inquest by the Western Australia Coroner took place in Perth in May 2010. The Coroner's findings are pending.

Norma Jean (ATSB investigation 237)

ATSB personnel gave evidence at a coronial inquest into the collision of the recreational craft *Norma Jean* with an anchored barge off Carnarvon, Western Australia, in June 2008. The collision resulted in the sinking of the *Norma Jean* with the loss of all four of its occupants on board. The inquest by the Western Australia Coroner took place in Carnarvon in May 2010. Based on additional evidence presented at the inquest and the Coroner's findings, the ATSB will re-examine certain aspects of its investigation into the incident.

TRANSPORT SAFETY STATISTICS

Rail safety trends

The responsibility for rail safety in Australia is shared by government and industry.

As part of this process of shared responsibility, industry operators are required to report rail safety occurrences to the state/territory regulators. The regulators evaluate those reports, and provide those classified as Immediately Reportable Matters to the ATSB (Table 5). Regulators and operators use this data to assist with their safety analyses and programs. In addition, the data described below is supplied to the ATSB twice a year by state and territory rail safety regulators to enable the publication of a national set of rail safety statistics, referred to as the National Rail Occurrence Database (NROD).

The NROD data is designed to assist rail safety professionals and researchers in understanding and mitigating risk. In addition, it can be used for international comparative research, while informing the public about emerging issues in rail safety. The NROD data contains frequency counts of the following safety-critical event types:

- Derailment
- Collision
- Level Crossing Occurrence
- Signal Passed at Danger (SPAD)
- Loading Irregularity
- Track and Civil Infrastructure Irregularity.

This data is collected and published on a jurisdictional basis. Frequency counts for each of the above occurrences are normalised by the state/territory regulators, according to the size of the rail operation. The normalising data provided is:

- train kilometres
- freight-train kilometres
- passenger-train kilometres
- total track kilometres.

In addition, frequency counts are provided for:

- deaths
- serious injuries.

The definitions for data provided in each of the categories are taken from ON — S1: Occurrence Standard Notification 1, and OC-G1: Occurrence Classification Guideline 1. These definitions have been developed by rail safety regulators in collaboration with industry operators. Rail regulators provide the data to the ATSB for national publication.

The data is published at **http://www.atsb.gov.au/rail/statistics.aspx** and also features in Table 5.

Table 5: National Rail Safety Occurrence Data 2005–2009

OCCURRENCE TYPE	2005	2006	2007	2008	2009
Deaths (non-suicide)	35	39	42	33	24
Serious injuries (exc. NSW)	74	135	185	113	91
Derailments+	144	117	144	125	153
Collisions+ with:					
— infrastructure	103	108	100	156	117
— persons	48	46	43	51	52
— road vehicles	16	15	11	9	9
— rolling stock	8	11	4	8	7
— other trains	20	18	16	21	19
Level Crossing collisions with:					
— road vehicles	72	79	55	58	49
— persons	7	9	9	6	7
Signals passed at danger (exc. TAS, NT):					
— driver error	432	414	495	475	407
— Signal restored as train approaches	724	698	749	786	857
Loading irregularities	467	541	478	510	510
Track/infrastructure irregularities	1244	1246	1333	1472	1685

+ Running line

Source: Rail Safety Regulators Panel (RSRP), ATSB

The information contained in Table 6 represents those rail accidents and serious incidents (collectively termed Immediately Reportable Matters) that have been reported to the ATSB. The reporting of rail occurrences is primarily confined to Immediately Reportable Matters that have occurred on the national Defined Interstate Rail Network. Information about those occurrences is entered into the ATSB's rail occurrence database and decisions are made about which of those occurrences will be investigated by the ATSB. The legislative basis for this reporting requirement is contained in the *Transport Safety Investigation Act 2003* (TSI Act) and the associated regulations. This data is a subset of the data presented in Table 6. The table shows that over the last five years, collisions with road vehicles at level crossings and running line derailments were the most frequent occurrences reported to the ATSB, followed by running line collisions.

Table 6. Rail occurrences reported to the ATSB by occurrence type

		OCCURRENCE CALENDAR YEAR (#RAIL OCCURRENCES)						
OCCURRENCE TYPE LEVEL 1	**OCCURRENCE TYPE LEVEL 2**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**TOTAL**
	Alcohol or Drugs Irregularity					2		2
Collision	Running Line Collision	6	7	6	6	10	6	41
	Yard Collision	1	1		1	2	1	6
Dangerous Goods	On Train						1	1
Derailment	Running Line Derailment	11	6	5	12	16	11	61
	Yard Derailment	2	4	3	2	6	6	23
Fire	Lineside Fires			1				1
	On Train	1			2	2	4	9
Level Crossing Occurrence	Collision with Person	1	3		1		2	7
	Collision with Road Vehicle	8	10	14	13	7	7	59
	Level crossing equipment damage/interference						1	1
	Near Miss with Road Vehicle					1	2	3
Load Irregularity	Door Open				1			1
	Load Shift		1	1	1			3
	Loose Load Fastening		1					1
	Other load irregularity					1		1
	Out of Gauge						1	1

Table 6. Rail occurrences reported to the ATSB by occurrence type (continued)

		OCCURRENCE CALENDAR YEAR (#RAIL OCCURRENCES)						
OCCURRENCE TYPE LEVEL 1	OCCURRENCE TYPE LEVEL 2	2004	2005	2006	2007	2008	2009	TOTAL
Proceed Authority Exceeded	Completely Missed While Running	1	1					2
	Driver Misjudged	1					1	2
Rollingstock Irregularity	Braking System	1				1		2
	Defective Bearing	2	3	2	2	1		10
	Other rolling stock irregularity	1		5	1	1		8
	Train Parting	3		1			2	6
	Wheel/Axle Failure	3		3				6
Safeworking Rule or Procedure Breach	Communications Based System Procedure/Rule Breach						1	1
	Other safeworking rule or procedure breach	4	5		1	2	1	13
	Safeworking Rules or Procedures Deficiency			1			1	2
	Track Work Procedure/ Rule Breach					2	2	4
	Wayside Signalling System Procedure/Rule Breach					1		1
Signal Passed at Danger	Completely Missed While Running	1						1
	Driver Misjudged	2	1			3	4	10
	Other signal passed at danger		1			1		2
	Starting Against Signal			1				1
Signalling and other Proceed Authority Systems Irregularity	Wayside Signalling System Irregularities					1	2	3
Slip, Trip or Fall	Other slip trip or fall					1		1
	To/From Train	1					1	2

Table 6. Rail occurrences reported to the ATSB by occurrence type (continued)

		OCCURRENCE CALENDAR YEAR (#RAIL OCCURRENCES)						
OCCURRENCE TYPE LEVEL 1	**OCCURRENCE TYPE LEVEL 2**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**TOTAL**
Suspected Suicide or Attempted Suicide	Suspected Suicide	1	1		2		2	6
Track and Civil Infrastructure Irregularity	Buckled Track	2	2	1				5
	Civil infrastructure irregularity						1	1
	Other Natural Events				1			1
	Other Track infrastructure irregularity				1			1
	Spread Track	1						1
Total		**54**	**47**	**44**	**47**	**61**	**60**	**313**

Marine safety trends

The information contained in Table 7 represents those marine accidents and serious incidents (collectively termed immediately reportable matters) that were reported to the ATSB. The reporting of marine occurrences to the ATSB is primarily confined to immediately reportable matters that have occurred in relation to ships that are engaged in interstate and international trade and commerce. Information about those occurrences is entered into the ATSB's marine occurrence database and decisions are made about which of those occurrences will be investigated by the ATSB. The legislative basis for this reporting requirement is contained in the TSI Act and the associated regulations. The table shows that over the last five years, serious injury was the most frequently reported type of occurrence followed by fires or explosions and equipment failures.

Table 7: Marine occurrences reported to the ATSB by occurrence type

OCCURRENCE TYPE	2005	2006	2007	2008	2009	TOTAL
Capsizing/listing		1			1	2
Close quarters	3	2	2	1	1	7
Collision	7	8	7	3	8	33
Contact	6	3	4	4	11	28
Damage to ship or equipment	6	6	4	1	2	19
Equipment failure	13	11	14	6	8	52
Fatality	6	8	6	3	3	26
Fire/explosion	10	11	10	18	8	57
Flooding		2	2	1	1	6
Foundered	1				2	3
Grounding/stranding	11	11	6	10	4	42
Hull failure/failure of watertight openings			2			2
Lifeboat accident	4	4	1	2	4	15
Machinery failure	4	17	5	2	3	33
Missing assumed lost		1				1
Other	6	10	11	7	22	56
Pollution		1	2	1	1	5
Serious injury	17	17	16	13	21	84
Total	**94**	**113**	**92**	**72**	**100**	**471**

Aviation safety trends

In contrast to rail and marine, the ATSB is the keeper of the national record for all reported aviation occurrences, including accidents and serious incidents (collectively termed Immediately Reportable Matters – IRMs) and incidents (termed Routine Reportable Matters). The reporting of aviation occurrences is required across all aviation sectors, including aircraft registered with recreational aviation associations. For this reason, more comprehensive aviation occurrence statistics are able to be generated by the ATSB than for rail and marine. The legislative basis for this reporting requirement is contained in the TSI Act and the associated Regulations.

The information contained in Table 8 on the following page represents those aviation accidents, serious incidents and incidents that have been reported to the ATSB. Information about those occurrences is entered into the ATSB's aviation occurrence database, and decisions are made about which of those occurrences will be investigated by the ATSB. The number of serious incidents increased from 2003 onwards. This, in part, was due to a review of the ATSB's classification of IRMs associated with the introduction of the TSI Act in July 2003.

Table 8: Aviation occurrences by occurrence category

CATEGORY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Accidents	222	199	164	154	168	135	107	165	190	167	**1,671**
Serious Incidents	9	10	10	41	70	66	60	114	126	96	**602**
Incidents	5,764	5,489	5,839	5,252	6,235	7,244	7,439	7,701	7,801	7,627	**66,391**
Total	**5,995**	**5,698**	**6,013**	**5,447**	**6,473**	**7,445**	**7,606**	**7,980**	**8,117**	**7,890**	**68,664**

Data includes all occurrences including non-VH registered recreational aircraft, but does not include parachute accidents that do not specifically relate to aircraft safety.

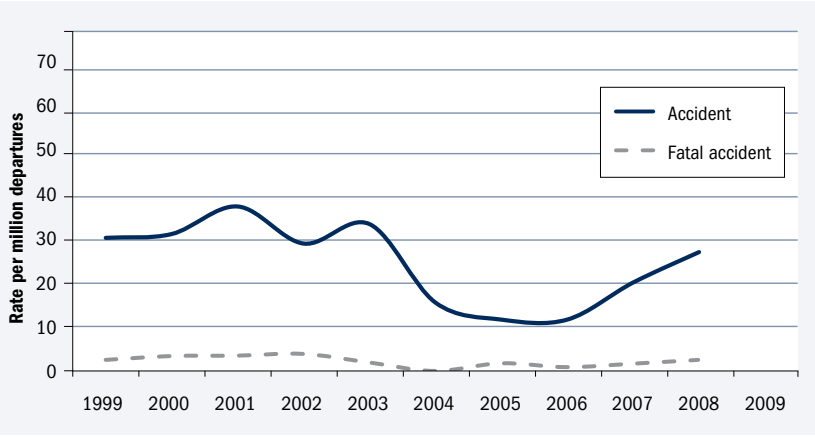
Aviation accidents rates by operation type

Commercial air transport

Commercial air transport refers to scheduled and non-scheduled commercial operations used for the purposes of transporting passengers and/or cargo for hire or reward. It includes high capacity regular public transport (RPT), low capacity RPT, and charter operations.

The accident rate per million departures shows a U-shape line (Figure 1) from 2003 onwards. Charter aircraft account for the majority of accidents in commercial air transport and have an accident rate about five times higher than for high and low capacity RPT operations. The fatal accident rate per million departures showed figures less than or equal to four fatal accidents per million departures. No clear trend in fatal accident rates per million departures was observed, although some variability is observed between years. The fatal accident rate was at its highest in 2002 and lowest in 2004.

FIGURE 1: Commercial air transport accident and fatal accident rates

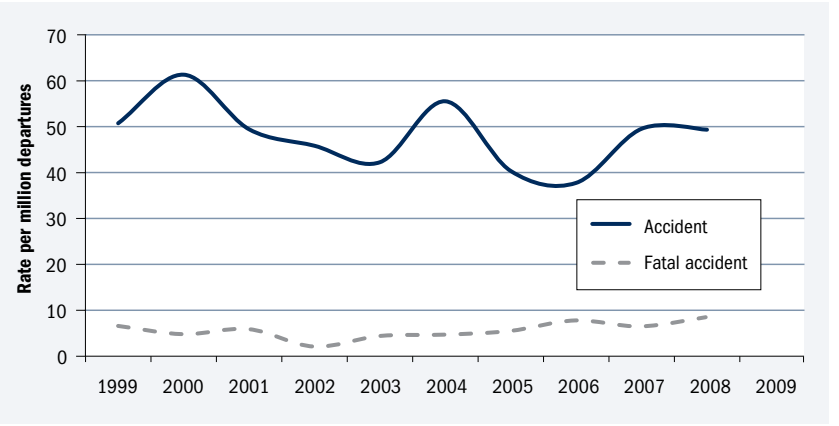


General aviation

General aviation is all flying activities outside of scheduled (RPT) and non-scheduled (charter) passenger and freight operations. It includes aerial work (ambulance and emergency medical services, agriculture, mustering, search and rescue, fire control, and survey and photography), flying training, and private/business and sports aviation. General aviation in this report does not include Australian non-VH registered aircraft.

The general aviation accident rate per million departures is lower than for hours flown. In the most recent year where departures are available (2008), the accident rate (per million departures) was twice as large in general aviation as in commercial air transport, and the fatal accident rate was three-times as large.

FIGURE 2: General aviation (VH- and foreign registered) rates, accidents and fatal accidents



Subcategories of general aviation have different accident and fatality rates. When the data is pooled over the report period, certain features emerge. Compared with flying training, aerial work has an accident rate per million hours that is two times higher and private/business has an accident rate that is 2.5 times higher. In terms of fatal accidents per million hours, the fatal accident rate in aerial work is three times higher than flying training, and private/business is at least six times higher.

Aviation occurrences by occurrence type

The ATSB records one or more occurrence types for all aircraft involved in accidents, incidents, and serious incidents. Accidents and serious incidents generally have more occurrence types than incidents, as they are more likely to be investigated. Table 9 and Table 11 show occurrence types for accidents and serious incidents, while Table 10 and Table 12 show occurrence types for incidents.

Table 9 shows that the most frequently reported occurrence type is a significant event. A significant event is often a secondary event such as rejected takeoff, precautionary landing, go-around, or aircraft evacuation. In other words, some other type of event has led to the significant event. This could be related to many different primary events; for example, an engine failure on takeoff may lead to a rejected takeoff, or a runway incursion might lead to a go-around. The relationships between different types of occurrences cannot be detailed in this report, as there are a significant number of occurrence type permutations and combinations.

Tables 9 to 12 depict a picture of reported occurrence types which centres on, the critical elements of successful flight in aircraft operations, including flight planning and communication, ground operations, loading and embarkation, aircraft control on the ground and in the air, takeoff, flight, landing, unloading, disembarkation, and storage or maintenance of the aircraft.

Commercial air transport

Accidents and serious incidents

Table 9: Air transport accident and serious incidents by occurrence type

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Aerodrome and airways facility											
Aerodrome related	0	0	0	0	0	1	0	0	0	0	**1**
Airspace											
Aircraft separation	2	1	4	10	12	11	5	31	12	8	**96**
Operational non-compliance	0	1	0	1	1	2	0	5	4	1	**15**
Procedural error	1	1	1	0	1	1	0	2	1	0	**8**
Breakdown of co-ordination	1	1	0	0	0	0	0	0	0	0	**2**
Airspace incursion	0	0	0	0	0	0	1	0	0	0	**1**
Other	0	0	0	0	0	0	0	1	0	0	**1**
Mechanical											
Airframe	10	7	9	7	7	7	2	9	6	5	**69**
Powerplant / propulsion	5	5	6	6	8	6	7	10	14	9	**76**
Systems	4	8	3	1	3	6	3	4	6	4	**42**
Operational											
Significant event	25	36	24	23	27	28	18	33	61	31	**306**
Aircraft control	9	13	6	7	6	4	5	12	8	5	**75**
Collision	5	12	5	9	3	5	7	9	12	1	**68**
Ground operations	4	1	4	4	3	2	5	4	7	1	**35**
Warning device	3	0	4	5	4	2	1	3	9	8	**39**
Fuel related	3	3	3	4	5	2	0	4	4	1	**29**
Weather / environment	2	2	2	2	4	1	0	6	4	1	**24**

Table 9: Air transport accident and serious incidents by occurrence type (continued)

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Operational (continued)											
Cabin Safety	1	1	2	0	0	3	0	4	1	0	**12**
Regulations and SOPs	1	3	2	1	0	1	1	0	0	0	**9**
Communications	0	0	1	1	2	0	0	0	5	0	**9**
Bird / animal strike	0	4	1	0	0	0	0	2	0	0	**7**
Navigation / flight planning	0	0	0	1	0	4	0	2	1	0	**8**
Aircraft loading	0	1	1	1	1	0	0	0	0	0	**4**
Miscellaneous	0	0	1	0	0	0	2	0	1	0	**4**

Incidents

Table 10: Air transport incidents by occurrence type

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Aerodrome and airways facility											
Airways facility	46	30	24	26	25	46	16	17	11	9	**250**
Aerodrome related	21	22	17	17	21	16	21	20	27	32	**214**
Airspace											
Operational non-compliance	274	282	361	381	505	712	596	731	772	702	**5,316**
Aircraft separation	174	186	121	148	132	161	183	246	280	205	**1,836**
Breakdown of co-ordination	112	122	104	97	158	198	139	175	153	191	**1,449**
Procedural error	74	55	54	76	71	106	120	119	123	84	**882**
Information error	53	47	32	44	51	101	94	71	49	56	**598**
Airspace incursion	67	58	38	38	40	39	30	71	59	41	**481**
Other	26	18	16	16	7	15	17	4	7	7	**133**

Table 10: Air transport incidents by occurrence type (continued)

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Mechanical											
Systems	306	298	291	207	279	315	320	337	398	328	**3,079**
Powerplant / propulsion	233	222	203	152	156	162	154	196	206	209	**1,893**
Airframe	148	126	139	118	106	148	127	204	217	204	**1,537**
Operational											
Bird / animal strike	595	601	610	641	850	942	884	938	1,043	1,158	**8,262**
Significant event	658	715	631	453	509	582	722	819	935	894	**6,918**
Warning device	610	585	440	312	443	558	435	365	490	426	**4,664**
Weather / environment	94	136	122	101	169	171	171	205	224	175	**1,568**
Ground operations	73	74	79	78	86	78	77	90	101	75	**811**
Communications	64	40	57	54	99	104	100	85	117	73	**793**
Aircraft loading	33	49	33	16	36	41	79	130	109	72	**598**
Cabin Safety	48	81	76	29	35	39	42	55	54	39	**498**
Navigation / flight planning	43	34	51	21	44	62	38	50	27	15	**385**
Aircraft control	29	32	34	22	38	43	56	54	41	31	**380**
Fuel related	34	29	39	20	31	23	32	54	52	35	**349**
Miscellaneous	21	19	21	12	12	14	8	26	12	2	**147**
Collision	18	10	9	17	15	13	19	26	16	16	**159**
Regulations and SOPs	8	4	12	3	7	6	10	25	22	5	**102**

General aviation

Accidents and serious incidents

Table 11: General aviation accident and serious incidents by occurrence type

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Aerodrome and facility related											
Aerodrome related	0	0	0	2	0	0	1	0	0	1	**4**
Airspace											
Aircraft separation	0	0	0	33	31	21	38	39	66	46	**274**
Operational non-compliance	1	1	0	1	4	5	5	4	11	7	**39**
Procedural error	0	0	0	0	0	0	2	0	5	1	**8**
Airspace incursion	0	0	0	0	0	0	1	1	2	3	**7**
Information error	0	0	0	0	0	0	0	0	0	2	**2**
Mechanical											
Powerplant / propulsion	33	27	16	16	45	27	33	66	43	52	**358**
Airframe	20	11	12	17	9	9	11	8	10	8	**115**
Systems	9	3	4	5	5	4	3	5	6	5	**49**
Operational											
Significant event	117	91	80	66	102	76	59	98	97	105	**891**
Collision	79	82	46	69	78	72	69	95	119	89	**798**
Aircraft control	28	32	33	18	26	30	22	29	26	27	**271**
Ground operations	18	16	20	18	15	9	9	18	20	22	**165**
Fuel related	8	9	4	5	3	7	4	5	8	6	**59**
Weather / environment	6	4	3	1	2	2	5	17	6	10	**56**
Bird / animal strike	5	5	3	1	3	5	0	2	2	3	**29**
Communications	0	0	0	4	6	1	2	0	10	7	**30**

Table 11: General aviation accident and serious incidents by occurrence type (continued)

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Operational (continued)											
Warning device	3	5	4	6	2	1	0	2	2	3	**28**
Regulations and SOPs	4	1	0	1	2	6	1	2	3	0	**20**
Cabin Safety	2	2	0	4	1	1	2	1	1	0	**14**
Navigation / flight planning	1	1	0	1	1	0	2	3	1	1	**11**
Aircraft loading	1	1	0	2	0	0	0	1	1	1	**7**
Miscellaneous	1	1	0	0	1	3	0	0	1	0	**7**

Incidents

Table 12: General aviation incidents by occurrence type

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Aerodrome and airways facility											
Aerodrome related	2	6	6	11	3	8	10	8	5	4	**63**
Airways facility	6	10	6	13	2	4	10	0	5	2	**58**
Airspace											
Airspace incursion	1,024	899	986	358	45	578	797	1,178	1,133	1,117	**8,115**
Operational non-compliance	237	261	319	217	138	285	611	781	1,083	855	**4,787**
Aircraft separation	158	197	155	115	124	147	169	263	296	281	**1,905**
Breakdown of co-ordination	41	27	46	52	42	41	50	61	55	40	**455**
Other	77	35	79	41	6	11	6	1	4	1	**261**
Procedural error	19	19	23	19	16	24	39	36	52	33	**280**
Information error	12	11	11	15	13	19	17	19	15	19	**151**

Table 12: General aviation incidents by occurrence type (continued)

OCCURRENCE TYPE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
Mechanical											
Powerplant / propulsion	134	155	148	159	131	141	126	162	167	147	**1,470**
Systems	147	119	103	114	199	191	179	162	158	157	**1,529**
Airframe	83	77	80	58	76	64	100	118	109	116	**881**
Operational											
Significant event	372	375	306	342	332	341	468	452	443	457	**3,888**
Bird / animal strike	99	177	209	257	292	383	387	380	362	399	**2,945**
Ground operations	87	92	113	120	164	239	223	205	258	410	**1,911**
Communications	135	109	89	65	82	73	173	126	208	148	**1,208**
Navigation / flight planning	109	92	122	77	75	106	130	111	101	96	**1,019**
Warning device	62	74	73	63	76	73	87	74	115	82	**779**
Collision	35	37	31	28	25	38	23	39	33	41	**330**
Aircraft control	21	27	15	15	18	33	19	41	29	27	**245**
Weather / environment	23	17	24	21	16	25	20	34	34	20	**234**
Fuel related	38	24	25	26	16	20	13	18	19	13	**212**
Regulations and SOPs	5	4	3	3	6	2	4	10	15	5	**57**
Miscellaneous	1	3	7	2	2	5	4	10	2	6	**42**
Cabin Safety	1	1	6	2	2	5	5	8	2	1	**33**
Aircraft loading	2	1	2	0	1	2	2	4	4	1	**19**

CORPORATE GOVERNANCE

The ATSB has developed a corporate governance framework that assists the organisation in the achievement of performance outcomes expected by the government. The framework promotes leadership and clear strategic direction, provides a basis for consistent and transparent decision-making, and defines mechanisms for accountability and stewardship.

The governance framework recognises the need for:

Performance—having a clear understanding of our planned objectives, measuring and reporting on our progress and our outcomes, and understanding and managing the risks that may impeded our progress

Conformance—having a clear understanding of what is expected of us and conforming to those expectations, knowing that we are working within the law and are consistent with our policies and procedures

Accountability—the efficient and effective use of Commonwealth resources, with clear lines of responsibility supported by decision-making by those with the requisite authority and information.

Corporate governance within the ATSB includes:

- our legislative framework, in particular the *Transport Safety Investigation Act 2003*, the *Public Service Act 1999*, and the *Financial Management and Accountability Act 1997*
- the Commission
- an effective executive, committee and organisational structure
- sound risk management and fraud control
- internal audit arrangements that address key business and financial risks to improve business systems and practices
- an appropriately independent audit committee focussing on fraud, risk management and business improvement, and oversight of the preparation of the ATSB's financial statements
- effective planning and performance reporting processes
- Chief Executive Instructions, policies and procedures
- people and performance management practices that support the APS values and the ATSB's principles.

The Commission

The ATSB is governed by a Commission. As of 30 June 2010, the ATSB Commission comprised the Chief Commissioner and two part-time Commissioners. The Commission has endorsed an ATSB Commission Governance Manual which outlines its functioning, administrative policies and procedures and accountability mechanisms. The Commission has agreed to meet at least quarterly, as well as regularly dealing with business electronically in accordance with agreed policies.

Executive management

The Chief Commissioner, who is also the Chief Executive Officer, is accountable for the administration of the ATSB. The Chief Commissioner has established an Executive Management Team (EMT) to assist him in determining its policies and priorities and providing effective leadership and oversight. The EMT meets weekly. Its membership comprises the Chief Commissioner, Deputy CEO, three Directors, Chief Financial Officer, Governance Manager, and Personnel Services Manager.

Supporting the Executive Management Team, the Chief Commissioner has also established an Occupational Health and Safety Committee, a Professional Committee and an Audit Committee.

The Occupational Health and Safety Committee has been established, consistent with obligations under the *Occupational Health and Safety Act 1991*. For more details, see the Appendix *Occupational Health and Safety*.

The Professional Committee was established following certification of the ATSB Enterprise Agreement 2009–11 in March 2010. The ATSB values open communication and cooperation with, and input from, employees and their representatives on matters that affect their workplace. The establishment of the committee provides a further mechanism for consultation, and it draws on the professional capability and experience of our staff to improve organisational productivity and effectiveness.

Audit Committee

The ATSB Audit Committee has been established to provide independent assurance and assistance to the ATSB Chief Commissioner on the Commission's risk, control and compliance framework, as well as its external accountability responsibilities.

The Audit Committee met four times during 2009–10—in September 2009, December 2009, March 2010 and June 2010.

The main work of the Committee during the year was to develop:

- the Internal Audit Strategic Plan, Internal Audit Charter, and Audit Committee Charter
- Fraud Control, Risk Management and Business Continuity Plans

- the Annual Audit Program for 2009–10
- preparations for the ATSB's first annual financial statements
- the proposed Audit Program for 2010–11.

The audit program for 2009–10 focussed on assuring the existence and conformance of the financial management control framework. The program included audits of:

- machinery of government transition requirements
- payroll function review
- financial management information system general controls review
- Certificate of Compliance processes
- a financial statements hard close quality assurance review.

Business planning and reporting

On 6 October 2009, the Minister for Infrastructure, Transport, Regional Development and Local Government provided his Statement of Expectations to the ATSB. On 2 February 2010, and following consultation with stakeholders, the ATSB provided the Minister with a Statement of Intent, which outlined how we intend to address the priorities outlined by the Minister. Both documents are available on the ATSB website, **www.atsb.gov.au**.

The Commission subsequently held a joint meeting with the senior management group of the ATSB in March 2010 to develop its Annual Plan for 2010–11. The Annual Plan gives effect to the undertakings outlined in the Statement of Intent.

Consistent with the Statement of Intent, and obligations placed on the ATSB through the Aviation White Paper *Flight Path to the Future*, the government endorsed revised key performance indicators and deliverables for the ATSB, which were published as part of the Infrastructure, Transport, Regional Development and Local Government Portfolio Budget Statements for 2010–11.

Risk management and fraud control

The ATSB's Risk Management Plan 2010–11 was developed during 2009–10 in parallel with business planning processes. Risk assessment and mitigation has been established as an integral part of business planning and performance reporting at both a corporate and business unit level. The Risk Management Plan 2010–11 was endorsed by the Commission and the ATSB Audit Committee prior to approval by the Chief Commissioner.

ATSB's initial risk focus is in the areas of reputation, contribution to national transport regulatory reform, compliance and governance, and resourcing and capability. Specific mitigation strategies have been developed as part of the ATSB's 2010–11 Annual Plan.

The Commission receives regular reports on risk management at its quarterly meetings. Progress in implementing the Risk Management Plan is also a standing agenda item for the Audit Committee. The ATSB intends to review its risk exposures during 2010–11.

A Fraud Control Plan has been developed in accordance with the Commonwealth Fraud Control Guidelines. The ATSB Fraud Control Plan 2009–11 was endorsed by the Audit Committee prior to approval by the Chief Commissioner. Fraud control is a regular agenda item at Audit Committee meetings. Fraud control strategies during 2009–10 focussed on ensuring staff awareness of fraud risks, controls and reporting obligations. All staff were required to attend fraud awareness workshops.

No reports or instances of fraud were recorded during the financial year.

Ethical standards

During the reporting period, the ATSB demonstrated its commitment to the APS Values and Code of Conduct by:

- highlighting the APS Values and Code of Conduct in relevant employment procedures
- including briefing information on the APS Values and Code of Conduct in induction packages and training sessions
- referencing the Values and Code of Conduct in selection criteria for all ATSB positions
- acknowledging the upholding of the APS Values and Code of Conduct through individual performance management plans
- employees being able to access information on ethical standards via the ATSB's Intranet, as well as by accessing the Australian Public Service Commission's website
- a review of action procedures, as provided for in Section 33 of the *Public Service Act 1999*, being made available to aggrieved employees as necessary.

External scrutiny

There were no judicial decisions or decisions of administrative tribunals during 2009–10 that have had or may have a significant impact on the operations of the ATSB.

Similarly, there were no reports by the Auditor-General (other than the report on financial statements), Parliamentary Committees or the Commonwealth Ombudsman which referred to the ATSB.

MANAGEMENT OF HUMAN RESOURCES

During 2009–10, the ATSB continued to enjoy the organisational benefits of an effective, well trained and highly committed workforce, notwithstanding the competing demands associated with recent machinery of government changes. In keeping with our continuous improvement strategies, the ATSB has utilised this year to review, develop and progress its human resource capabilities comprehensively. The primary vehicle used to drive this commitment was the establishment of a new Enterprise Agreement. As part of this process, negotiations between management and bargaining representatives resulted in the following improvements to non-salary related employment conditions:

- paid parental leave increased from two weeks to six weeks
- unpaid parental leave increased from 12 months to 24 months
- inclusion of up to 12 months sabbatical leave
- cash out of annual leave increased from one week to two weeks
- improved salary sacrificing arrangements
- greater clarity around consultative arrangements, including the establishment of a Professional Committee
- the recognition of workplace delegates
- further clarity and transparency around OH&S commitments in managing
- time-off-in-lieu provisions associated with accident sites
- formalised recognition of management practices associated with rostered employees
- greater clarity around reimbursement of professional memberships
- enhanced travel provisions to recognise the impact on staff of travelling to distant accident sites and other locations.

Despite these considerable improvements, some proposals could not be met without being offset by reductions in the previously established workplace terms and conditions. This included proposals for substantially increased salary provisions and for changes to work value and job classifications. The resulting bargaining position was

an ongoing commitment by the Chief Executive Officer to use any available budgetary flexibility to increase staffing levels in those business areas where high workloads on individuals was identified.

The new Enterprise Agreement was supported by 96 per cent of staff and came into effect on 10 March 2010.

Staffing profile

In keeping with the above commitment, the total number of staff employed at the ATSB increased from 106 at the start of July 2009 to 115 by the end of June 2010. Table 13 displays ATSB staff numbers, by classification, at 30 June 2010.

Table 13: ATSB staffing profile at 30 June 2010

SUBSTANTIVE CLASSIFICATION	FEMALE (FULL TIME)	FEMALE (PART TIME)	MALE (FT)	MALE (PART TIME)	TOTAL
Statutory Office Holders		1	1	1	3
Senior Executive Service (SES) Band 1	1		1		2
EL 2	2		59		61
EL 1	7		18		25
APS 6	3		4		7
APS 5	8	1	2	1	12
APS 4	4		1		5
Total	**25**	**2**	**86**	**2**	**115**

This total is comprised of the following employment arrangements:

- 110 staff (representing all non-SES employees) covered by the Enterprise Agreement
- 2 x SES employees covered by section 24(1) determinations
- 3 x Statutory Office Holders (representing the Commissioners) covered through the Remuneration Tribunal.

There are no other employment arrangements in place, including the provision for performance pay.

The ATSB staff turnover rate has remained low at 4.3 per cent.

Salary rates

Table 14 displays the salary rates supporting the above employment arrangements, at 30 June 2010.

Table 14: ATSB salary rates at 30 June 2010

SUBSTANTIVE CLASSIFICATION	MINIMUM ($)	MAXIMUM ($)
Statutory Office Holders	**As determined through the Remuneration Tribunal**	
SES1	135,200	182,520
EL 2	95,880	121,951*
EL 1	83,464	96,314*
APS 6	65,155	77,505*
APS 5	60,092	63,719
APS 4	53,827	58,491

* Maximums include Transport Safety Investigator and respective supervisor's salaries, representing a $2,964 – $8,701 increase on standard APS6 –EL2 rates.

Training and development

As a Registered Training Organisation, the ATSB awarded an additional eight Transport Safety Investigation Diplomas in 2009–10. In terms of other professional development and maintenance of industry awareness type programs, the ATSB, in accordance with individual staff development plans, facilitated many productive and worthwhile opportunities–including 7.8 per cent of staff engaging in higher level tertiary pursuits.

As a newly established independent agency, the ATSB has also developed a comprehensive internal training calendar designed to cover the broader range of corporate and public service learning requirements.

ASSETS MANAGEMENT

As at 30 June 2010, the ATSB had assets with a book value of $3.847m, which included specialised computer equipment and software such as teleconferencing units, air traffic control and aircraft data recorder equipment, and electron and optical microscopes, as well as other sophisticated specialised technical equipment used in investigations by ATSB Staff. During the 2009–10 year, major re-development was undertaken to upgrade and extend the useful life of the ATSB's Safety Investigation Information Management System (SIIMS) software. SIIMS provides an integrated view of transport safety notifications, occurrences, investigations, research, analysis and safety actions, and it establishes the definitive record of an investigation.

Purchasing

The ATSB's approach to the procurement of all goods and services is consistent with the requirements of the Commonwealth Procurement Guidelines (CPGs). The CPGs are applied to the procurement activities of the ATSB through the Chief Executive Instructions (CEIs). The agency's procurement policies and processes have been developed to help ensure that it undertakes competitive, non-discriminatory procurements, uses resources efficiently, effectively and ethically, and makes all procurement decisions in an accountable and transparent manner.

As the ATSB is a newly formed agency, its supporting infrastructure, guidance and policies have been adapted and modified so as to best meet the needs of the ATSB's particular circumstances, consistent with the *Finance Management and Accountability Act 1997* and related regulations as well as the government's purchasing guidelines and policies.

As part of those arrangements, the ATSB has published the following on AusTender:

- details of publicly available procurement opportunities with a value of $10,000 or more **www.tenders.gov.au**
- details of all contracts, standing offers and consultancies awarded with a value of $10,000 or more **www.tenders.gov.au**.

Legal services expenditure

Paragraph 11.1(a) of the Legal Services Directions 2005, issued by the Attorney-General under the *Judiciary Act 1903*, requires chief executives of departments and agencies to ensure that legal services expenditure is appropriately recorded and monitored. Chief executives must also ensure that their agencies make records of their legal services expenditure for the previous financial year available by 30 October in the following financial year. The following figures are inclusive of GST.

The expenditure on legal services for 2009–10 was $580,683.73. This was comprised of:

- $236, 828.06 on External Legal Services[8]
- $343, 855.67 on Internal Legal Services[9].

Consultants

The ATSB engages consultants to carry out research or to provide professional or technical advice that cannot be provided by agency staff. Consultants are procured as required and in accordance with the CPGs, the Agency's Chief Executive Instructions and other internal procurement guidelines.

During 2009–10, 15 new consultants were engaged across 52 new contracts. The total expenditure that related to those consultants was $0.462m inclusive of GST.

Reporting of consultancy contracts to the value of $10,000 or more

Table 15: Consultancy services let during 2009–10, of $10,000 or more

CONSULTANT NAME	DESCRIPTION	CONTRACT PRICE	SELECTION PROCESS (1)	JUSTIFICATION (2)
Cre8tive	WEBSITE Review & Design Services	$80,000	Select Tender	A
Flight Medicine Systems Pty Ltd	Provision in the development & delivery of an Advanced HF course	$33,000	Direct Sourcing	B

8 The majority of the ATSB's expenditure on external legal services is due to the need to use private firms and, in some circumstances, counsel, for preparation and representation in coronial inquests.

9 The cost of internal legal services was estimated on salary levels for 1.7 Executive Level 2 lawyers increased by typical overheads for staffing costs which is consistent with the Australian National Audit Office's August 2006 Better Practice Guide.

Table 15: Consultancy services let during 2009–10, of $10,000 or more (continued)

CONSULTANT NAME	DESCRIPTION	CONTRACT PRICE	SELECTION PROCESS (1)	JUSTIFICATION (2)
Freebody Cogent Pty Ltd	Contractor for financial services	$40,600	Direct Sourcing	A
iCognition Pty Ltd	Installation & Implementation HP TRIM	$25,000	Direct Sourcing	B
instinct and reason	Market Research	$79,970	Select Tender	B
KPMG	Audit on FIMS – ITGC Review	$22,550	Direct Sourcing	C
KPMG	Audit on Payroll System	$19,800	Direct Sourcing	C
KPMG	Audit on MOG Review – KPMG	$10,604	Direct Sourcing	C
KPMG	Audit on certificate of compliance	$28,600	Direct Sourcing	C
KPMG	Audit on Hard Close Quality Assurance	$19,800	Direct Sourcing	C

Notes

(1) Explanation of selection process terms drawn from the Commonwealth Procurement Guidelines (December 2008):

Open Tender: A procurement procedure in which a request for tender is published inviting all businesses that satisfy the conditions for participation to submit tenders. Public tenders are generally sought from the Australian Government AusTender internet site.

Select Tender: A procurement procedure in which the procuring agency selects which potential suppliers are invited to submit tenders (this includes tenders submitted through Multi Use Lists). This procurement process may only be used under certain defined circumstances.

Direct Sourcing: A form of restricted tendering, available only under certain defined circumstances, with a single potential supplier or suppliers being invited to bid because of their unique expertise and/or their special ability to supply the goods and/or services sought.

Panel: An arrangement under which a number of suppliers, initially selected through an open tender process, may each supply property or services to an agency as specified in the panel arrangements. Quotes are sought from suppliers that have pre-qualified on the agency panels to supply to the government. This category includes standing offers and supplier panels where the supply of goods and services may be provided for a pre-determined length of time, usually at a pre-arranged price.

(2) Justification for decision to use consultancy:

A – skills currently unavailable within agency

B – need for specialised or professional skills

C – need for independent research or assessment

Table 15: Consultancy services let during 2009–10, of $10,000 or more (continued)

CONSULTANT NAME	DESCRIPTION	CONTRACT PRICE	SELECTION PROCESS (1)	JUSTIFICATION (2)
Phoenix Air Safety Consultants Pty Ltd	Report writing course – consultant	$49,500	Direct Sourcing	A
Phoenix Air Safety Consultants Pty Ltd	Provide Director International assistance in conducting a scoping study	$16,500	Direct Sourcing	A
Robson Huntley & Associates Pty Ltd	Audit Committee Services	$22,000	Direct Sourcing	C
Roex Management Pty Ltd	Independent Chair of Audit Committee	$44,000	Direct Sourcing	C
TOTAL		**$650,819**		

Notes

(1) Explanation of selection process terms drawn from the Commonwealth Procurement Guidelines (December 2008):
Open Tender: A procurement procedure in which a request for tender is published inviting all businesses that satisfy the conditions for participation to submit tenders. Public tenders are generally sought from the Australian Government AusTender internet site.
Select Tender: A procurement procedure in which the procuring agency selects which potential suppliers are invited to submit tenders (this includes tenders submitted through Multi Use Lists). This procurement process may only be used under certain defined circumstances.
Direct Sourcing: A form of restricted tendering, available only under certain defined circumstances, with a single potential supplier or suppliers being invited to bid because of their unique expertise and/or their special ability to supply the goods and/or services sought.
Panel: An arrangement under which a number of suppliers, initially selected through an open tender process, may each supply property or services to an agency as specified in the panel arrangements. Quotes are sought from suppliers that have pre-qualified on the agency panels to supply to the government. This category includes standing offers and supplier panels where the supply of goods and services may be provided for a pre-determined length of time, usually at a pre-arranged price.

(2) Justification for decision to use consultancy:
A – skills currently unavailable within agency
B – need for specialised or professional skills
C – need for independent research or assessment

Australian National Audit Office access clauses

In 2009–10, no contracts within the ATSB were exempted from access by the Australian National Audit Office for review.

Exempt contracts

In 2009–10, no contracts were exempted from publication on AusTender on public interest grounds.

APPENDICES

Appendix A: Report on Commonwealth Disability Strategy

This report has been prepared to align with the reporting guidelines prescribed in the Commonwealth Disability Strategy (CDS). The Strategy provides for reporting against indicators for the five key roles performed by Commonwealth organisations, i.e. policy advisor, regulator, purchaser, provider and employer. For the purposes of the CDS, the Australian Transport Safety Bureau (ATSB) fulfils, in part, a role of regulator, as well as an employer. The employer role activities are reported through the Australian Public Service Commission's State of the Service agency survey and not through agency Annual Reports, and so are not covered here.

Under the *Transport Safety Investigation Act 2003*, the ATSB is responsible for receiving and assessing reports of transport safety matters, including notifications of safety occurrences and confidential reporting. The ATSB is also required to publish its investigation reports.

1. *Publicly available information available on regulations and quasi-regulations is available in accessible formats for people with disabilities.*

Easily accessible comprehensive information is available through the ATSB's website.

2. *Publicly available regulatory compliance reporting is available in accessible formats for people with disabilities.*

There were 90 final investigation reports and 10 safety research and analysis reports published by the ATSB. All ATSB reports are available from our website, **www.atsb.gov.au**. The ATSB will continue to make all publicly available information accessible online and to provide an information and referral service through the toll-free call centre. Improvements to the ATSB's website will make online information more accessible by allowing the use of assistive technologies.

Appendix B: Agency resource statement

Agency Resource Statement 2009–10

	Actual available appropriation for 2009–10 $'000	Payments made 2009–10 $'000	Balance remaining 2009–10
	(a)	**(b)**	**(a) – (b)**
Ordinary Annual Services			
Departmental appropriation[1]			
Total	**22,423**	**22,134**	**289**
Total net resourcing for the ATSB	**22,423**	**22,134**	**289**

Appendix C: Resources for outcomes

Expenses and Resources for Outcome 1

Outcome 1: Improved transport safety in Australia including through: independent, 'no-blame' investigation of transport accidents and other safety occurrences; other safety recording, analysis and research; and fostering safety awareness, knowledge.	Budget*	Actual Expenses	Variation
	2009–10 $'000	2009–10 $'000	2009–10 $'000
	(a)	(b)	(a) – (b)
Program 1.1: Australian Transport Safety Bureau			
Departmental expenses			
Ordinary annual services (Appropriation Bill No. 1)	22,423	22,840	417
Revenues from independent sources (Section 31)	0	(706)	(706)
Total for Program 1.1	22,423	22,134	289
Total expenses for Outcome 1			

	2008–09	2009–10
Average Staffing Level (number)	0	106

* Full year budget, including any subsequent adjustment made to the 2009–10 Budget.

Appendix D: Occupational health and safety

The ATSB's newly established OHS Committee spent this year formalising the health and safety management arrangements. This committee, consisting of ten highly experienced health and safety representatives, has been responsible for the implementation of a number of workplace initiatives including:

- improvements in OHS reporting arrangements
- revised drug and alcohol procedure
- greater access to Material Safety Data Sheets
- improved onsite OHS checklists
- a review of investigator issued clothing.

During 2009–10, there were no claims accepted by Comcare, resulting in a premium reduction of 9.9 per cent. There were no reportable incidents under Section 68, nor were there any investigations conducted under section 29, 46 or 47 of the *Occupational Health and Safety Act 1991.*

In terms of other wellbeing indicators, 8.6 per cent of staff accessed the employee assistance program, and the unscheduled absence rate per full time equivalent was 12.82 days. This figure appears inflated due to a small number of ongoing return to work cases, where between 6–12 months of personal circumstances leave has been individually recorded.

The ATSB is also currently developing a new Equity and Diversity Plan that will supersede the parent arrangements currently existing with the Department of Infrastructure, Transport, Regional Development and Local Government. When finalised, this will allow separate reports on workplace diversity, disability strategies, Indigenous employment strategies and mature age strategies to be generated.

Appendix E: Report under the *Freedom of Information Act 1982*

Under section 15 of the *Freedom of Information Act 1982* (FOI Act), any person is entitled to apply for access to documents that fall within the scope of the Act. The ATSB holds documents relating to its function to improve safety and public confidence in aviation, marine and rail modes of transport through excellence in:

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

This appendix explains how to request access to documents held by the ATSB under the FOI Act, what records the ATSB holds, and what arrangements the ATSB has in place for outside participation.

Detailed information about the FOI Act is available via the website of the Department of the Prime Minister and Cabinet at **www.dpmc.gov.au/foi/annual_reports.cfm**.

Table 16 provides information of the number of requests received and handled by the ATSB during 2009–10.

Table 16: Freedom of Information Requests made to the Australian Transport Safety Bureau

VOLUME OF REQUESTS HANDLED	2009–10
Requests on hand at 1 July 2009 (A)	1
New requests received (B)	12
Requests withdrawn or transferred in full (C)	6
Requests on hand at 30 June 2010 (D)	1
Total requests resolved (A+B-C-D)	6
Timeliness of responses to requests[10]	
Resolved in < 30 days	3
Resolved in 31–60 days	2
Resolved in 61–90 days	0
Resolved in > 90 days	1

10 These statistics cannot be compared with the deadlines set in the *Freedom of Information Act 1982*, as the Act provides for extensions of time to allow for consultation with third parties, negotiation of fees and other issues. Resolved requests include transfers to other agencies.

Review of FOI decisions

One application was made for an internal review of a decision under the FOI Act in 2009–10. The review was completed with the original decision being overturned.

How to lodge a request for information

A request for access to document(s)/information made under the FOI Act must:

- be made in writing
- be accompanied by the $30 application fee
- include an address in Australia to which replies and notices can be sent
- provide enough information for the ATSB to identify the documents sought.

The applicant may wish to provide a contact phone number or an email address so he/she can be contacted, if necessary, to discuss the request.

In some circumstances, the application fee may be remitted. Should the applicant wish to seek the remission of the application fee, the criteria considered by the ATSB include whether:

- the payment of the fee or part of the fee would cause financial hardship to the applicant or a person on whose behalf the application was made
- the giving of access to document(s)/information is in the general public interest or in the interest of a substantial section of the public.

The applicant would need to contact the ATSB in writing or by email and explain why he/she meets the criteria or that the overall circumstances justify not paying the fee. Request for non-payment of application fee should be forwarded to the Freedom of Information Coordinator. Until the application fee for a request is paid or otherwise decided on, the FOI request cannot be processed.

The ATSB usually imposes additional processing charges. The Freedom of Information (Fees and Charges) Regulations set out rates for the time spent searching for and retrieving documents, decision-making time, photocopying and other costs. The applicant will be notified as soon as possible of an estimate of the charges associated with processing of the request. The request will not be processed until the applicant responds to such notification.

It may not be possible to obtain access to all the documents sought in an FOI request. Access is limited by exemptions that protect essential public interests and private and business affairs of other parties.

It is important to note that the ATSB is required to perform its functions under the *Transport Safety Investigation Act 2003* (TSI Act). A significant amount of information gathered by the ATSB during the course of its investigations is defined as restricted information under section 3 of the TSI Act, and access to such information is exempt from release under subparagraph 38(1) (b) (i) of the FOI Act.

Requests under the FOI Act for access to documents in ATSB's possession, or enquiries about access, should be directed to:

Freedom of Information Coordinator
Australian Transport Safety Bureau
PO Box 967
CIVIC SQUARE ACT 2608

Phone: + 61 2 6274 6488
Fax: + 612 6247 3117
Email: **FOI@atsb.gov.au**

Records the ATSB holds

The ATSB holds records such as:

- briefing papers and submissions prepared for ministers, parliamentary secretaries, the Cabinet and the Executive Council (most of these are classified documents)
- business papers, briefing notes and meeting records for committees and conferences which the ATSB services or takes part in
- documents prepared by international agencies
- documents relating to the development of legislation
- internal administration documents
- international treaties, memorandums of understanding and international conventions
- legal documents, including legislation, contracts, leases and court documents
- maps and other geographical information
- ministerial responses to parliamentary questions, interdepartmental and general correspondence and papers
- policy documents, recommendations and decisions
- registers of documents, agreements and approvals
- statistics and databases
- technical standards, guidelines, specifications, charts, photographs, drawings and manuals
- accident and incident investigation and notification records.

Functions and decision-making powers

The ATSB's functions are detailed in section 12AA of the TSI Act and are further described throughout this report.

Certain officers exercise decision-making powers under portfolio legislation and other matters. These responsibilities are set out in the Administrative Arrangements Order (AAO) for the Commonwealth of Australia and relate to transport safety, including investigations.

For a complete and up-to-date copy of the AAO, visit **www.dpmc.gov.au**.

To assist ATSB employees in exercising their powers appropriately and enable access to their decision-making authorities, the ATSB uses an intranet which allows employees to access delegations online. It also allows employees to check information about the powers and authorities assigned under the legislation set out in the AAO and by laws such as the *Financial Management and Accountability Act 1997* and the *Public Service Act 1999*. Powers delegated under the TSI Act are recorded on the back of identity cards for all investigators.

To view a list of manuals and other documents the ATSB uses when making decisions or recommendations that affect the public, contact any office of the National Archives Australia, or visit **www.naa.gov.au**.

Arrangements for outside participation

The ATSB consults widely to gain the views of its stakeholders and clients about future policy directions and program delivery. This includes consulting with other Australian state and territory government departments and agencies, as appropriate, and with foreign governments, particularly in the context of transport safety investigations. For particular policy issues, the ATSB may also contact a very broad range of stakeholders.

Appendix F: Advertising and market research

During 2009–10, the ATSB paid $71,973 to the market research agency *instinct and reason* to undertake communications and engagement research with key stakeholders in the transport safety industry. During 2009–10, the ATSB spent $19,461.60 on advertising for recruitment.

The ATSB did not conduct any advertising campaigns during 2009–10.

Appendix G: Ecologically sustainable development and environmental performance

During 2009–10, the ATSB implemented several initiatives specifically to reduce our carbon footprint and protect the environment.

Some of these initiatives include:

- We operate a virtualised IT server environment.
- Our desktop IT equipment utilises energy saving policies, such as automatic turn off for monitors and hard drives after a period of inactivity (30 minutes and three hours, respectively).
- We promote the use of portable notebook computers over desktops, as the former use up to 30 per cent less energy to run.
- We have reduced the number of printers by 25 per cent.
- We have set each printer's default settings to mono (black) and double-sided printing.
- We use photocopy paper for internal use that contains 60 per cent recycled paper.
- We actively recycle our paper waste.
- We promote the separation of general waste into recyclable and non-recyclable items before disposal.
- We promote videoconferencing as an alternative to travel, where practical.
- We have motion sensor activated office lighting in our offices.
- We have reduced the effects of direct sunlight on air-conditioning systems by installing blinds or tinting, where appropriate.

Appendix H: Grant programs

The ATSB has not provided any grants for the 2009–10 year.

FINANCIAL STATEMENTS

For the year ended 30 June 2010.

INDEPENDENT AUDITOR'S REPORT

To the Minister for Infrastructure and Transport

Scope

I have audited the accompanying financial statements of the Australian Transport Safety Bureau for the year ended 30 June 2010, which comprise: the Statement by the Chief Executive Officer and Chief Financial Officer; Statement of Comprehensive Income; Balance Sheet; Statement of Changes in Equity; Cash Flow Statement; Schedule of Asset Additions; and notes to and forming part of the financial statements, including a Summary of Significant Accounting Policies.

The Responsibility of the Chief Executive Officer for the Financial Statements

The Australian Transport Safety Bureau's Chief Executive Officer is responsible for the preparation and fair presentation of the financial statements in accordance with the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*, including the Australian Accounting Standards (which include the Australian Accounting Interpretations). This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

My responsibility is to express an opinion on the financial statements based on my audit. I have conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These auditing standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

GPO Box 707 CANBERRA ACT 2601
19 National Circuit BARTON ACT
Phone (02) 6203 7300 Fax (02) 6203 7777

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Australian Transport Safety Bureau's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Australian Transport Safety Bureau's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Australian Transport Safety Bureau's Chief Executive Officer, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Independence

In conducting the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the requirements of the Australian accounting profession.

Auditor's Opinion

In my opinion, the financial statements of the Australian Transport Safety Bureau:

(a) have been prepared in accordance with the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997,* including the Australian Accounting Standards; and

(b) give a true and fair view of the matters required by the Finance Minister's Orders including the Australian Transport Safety Bureau's financial position as at 30 June 2010 and its financial performance and cash flows for the year then ended.

Australian National Audit Office

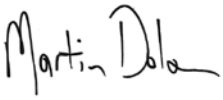
Peter Kerr
Executive Director
Delegate of the Auditor-General
Canberra
1 October 2010

Australian Government

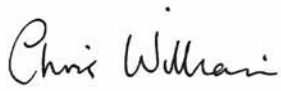
Australian Transport Safety Bureau

Statement By The Chief Executive Officer And Chief Financial Officer

In our opinion, the attached financial statements for the year ended 30 June 2010 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997,* as amended.



Martin Dolan
Chief Executive Officer
29 September 2010



Chris Williams
Chief Financial
29 September 2010

STATEMENT OF COMPREHENSIVE INCOME

for the period ended 30 June 2010

	Notes	2010 $'000
EXPENSES		
Employee benefits	3A	13,848
Supplier expenses	3B	7,300
Depreciation and amortisation	3C	1,673
Finance costs	3D	6
Write down and impairment of assets	3E	13
Total expenses		**22,840**
Less		
OWN SOURCE INCOME		
Own source revenue		
Cost recovery	4A	660
Total own source revenue		**660**
Gains		
Sale of Assets	4B	1
Other	4C	45
Total Gains		**46**
Total own-source income		**706**
Net cost of services		**22,134**
Revenue from Government	4D	22,423
Surplus on continuing operations		**289**
Total comprehensive income attributable to the Australian Government		**289**

The above statement should be read in conjunction with the accompanying notes.

BALANCE SHEET

as at 30 June 2010

	Notes	2010 $'000
ASSETS		
Financials Assets		
Cash and cash equivalents	5A	22
Trade and other receivables	5B	8,407
Total financial assets		**8,429**
Non-Financial Assets		
Plant and equipment	6A, B	1,051
Intangibles	6C, D	2,745
Other	6E	104
Total non-financial assets		**3,900**
Total Assets		**12,329**
LIABILITIES		
Payables		
Suppliers	7A	368
Other	7B	752
Total payables		**1,120**
Interest Bearing Liabilities		
Loans	8A	160
Leases	8B	72
Total interest bearing liabilities		**232**
Provisions		
Employee provisions	9	3,687
Total provisions		**3,687**
Total Liabilities		**5,039**
Net Assets		**7,290**
EQUITY		
Contributed equity		7,001
Retained surplus		289
Total equity		**7,290**

The above statement should be read in conjunction with the accompanying notes.

STATEMENT OF CHANGES IN EQUITY

for the period ended 30 June 2010

	Retained Earnings 2010 $'000	Contributed Equity 2010 $'000	Total Equity 2010 $'000
Opening balance at 1 July 2009	–	–	**–**
Comprehensive Income			
Surplus for the period	289	–	**289**
Total comprehensive income	**289**	**–**	**289**
Of which:			
Attributable to the Australian Government	289	–	**289**
Transactions with owners			
Contributed equity – S32 FMA Act	–	8,313	**8,313**
Return of prior year appropriation receivable *	–	(1,312)	**(1,312)**
Total transactions with owners	**–**	**7,001**	**7,001**
Closing balance (attributable to the Australian Government) as at 30 June 2010	**289**	**7,001**	**7,290**

* In recognition of the establishment of a Departmental capital budget over the forward estimates period, which is to be funded from future appropriation, $1.225m of prior year appropriation receivable was returned to the Consolidated Revenue Fund. In addition a further $0.087m was returned to the Consolidated Revenue Fund.

The above statement should be read in conjunction with the accompanying notes.

CASH FLOW STATEMENT

for the period ended 30 June 2010

	Notes	2010 $'000
OPERATING ACTIVITIES		
Cash received		
Appropriations		19,398
Goods and services		708
Net GST received		357
Total cash received		**20,463**
Cash used		
Employees		13,622
Suppliers		6,605
Borrowing costs		6
Total cash used		**20,233**
Net cash from operating activities	11	**230**
INVESTING ACTIVITIES		
Cash received		
Proceeds from sale of plant and equipment		1
Total cash received		**1**
Cash used		
Purchase of plant and equipment		53
Internally developed software		255
Total cash used		**308**
Net cash used by investing activities		**(307)**
FINANCING ACTIVITIES		
Cash used		
Repayment of finance leases		61
Total cash used		**(61)**
Net cash used by financing activities		**(61)**
Net decrease in cash held		**(138)**
Cash and cash equivalents at the beginning of the reporting period		–
Cash and cash equivalents at the end of the reporting period	5A, 8A	**(138)**

Cash at the end of the reporting period is negative reflecting that it comprises

Cash on hand or on deposit	5A	22
Loans (overdraft)	8A	(160)
		(138)

The above statement should be read in conjunction with the accompanying notes.

SCHEDULE OF ASSET ADDITIONS

for the period ended 30 June 2010

The following non financial, non-current assets were added in 2009–10

	Plant and Equipment $'000	Intangibles $'000	Total $'000
By purchase – appropriation equity	53	63	**116**
By internal development		192	**192**
Total additions	**53**	**255**	**308**

There were no commitments or contingencies to be recognised at 30 June 2010.

Note 1: Summary of Significant Accounting Policies

1.1 Objectives of the Australian Transport Safety Bureau

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory Agency established by the *Transport Safety Investigation Act 2003* (TSI Act) on 1 July 2009. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers.

The ATSB works to achieve the following outcome:

Improved transport safety in Australia including through: independent, 'no blame' investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

The continued existence of the ATSB in its present form and with its present programs is dependent on Government policy and on continuing appropriations by Parliament for the ATSB's administration and programs. The ATSB has no Administered funding.

1.2 Basis of Preparation of the Financial Statements

The financial statements are required by section 49 of the *Financial Management and Accountability Act 1997* (the FMA Act) and are a general purpose financial report.

The Financial Statements have been prepared in accordance with:

- Finance Minister's Orders (FMOs) for reporting periods ending on or after 1 July 2009; and
- Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention, except for certain assets and liabilities, which, as noted, are at fair value except were stated. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The financial statements are presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

Unless an alternative treatment is specifically required by an accounting standard or the FMOs, assets and liabilities are recognised in the Balance Sheet when and only when it is probable that future economic benefits will flow to the entity or a future sacrifice of economic benefits will be required and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under Agreements Equally Proportionately Unperformed are not recognised unless required by an accounting standard.

Unless alternative treatment is specifically required by an accounting standard, income and expenses are recognised in the Statement of Comprehensive Income when, and only when, the flow, consumption or loss of economic benefits has occurred and can be reliably measured.

1.3 Significant Accounting Judgements and Estimates

In the process of applying the accounting policies listed in this note, the ATSB has made the following decision:

The estimate of the remaining useful life of the intangible software asset, Safety Investigation Information Management System is four years.

1.4 New Australian Accounting Standards

Adoption of New Australian Accounting Standards Requirements

No accounting standard has been adopted earlier than the application date as stated in the standard.

No new standards, revised standards, interpretations and amending standards that were issued prior to the signing of the statement by the Chief Executive Officer and Chief Financial Officer that were applicable to the current reporting period had a material impact on the ATSB.

Future Australian Accounting Standards Requirements

No new standards, revised standards, interpretations and amending standards that were issued by the AASB prior to the signing of the statement by the Chief Executive Officer and Chief Financial Officer that were applicable to the current reporting period are expected to have material impact on the ATSB for future reporting periods.

1.5 Revenue

Revenue from Government

Amounts appropriated for departmental outputs appropriations for the year (adjusted for any formal additions and reductions) are recognised as revenue when the ATSB gains control of the appropriation, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned.

Appropriations receivable are recognised at their nominal amounts.

Resources Received Free of Charge

Resources received free of charge are recognised as revenue when, and only when, a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

Resources received free of charge are recorded as either revenue or gains depending on their nature.

Other Types of Revenue

Revenue from the sale of goods is recognised when:

- the risks and rewards of ownership have been transferred to the buyer;
- the agency retains no managerial involvement or effective control over the goods;
- the revenue and transaction costs incurred can be reliably measured; and
- it is probable that the economic benefits associated with the transaction will flow to the entity.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts at the reporting date. The revenue is recognised when:

- the amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
- the probable economic benefits associated with the transaction will flow to the entity.

The stage of completion of contracts at the reporting date is determined by reference the proportion that costs incurred to date bear to the estimated total costs of the transaction.

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any provision for bad and doubtful debts. Collectability of debts is reviewed on an ongoing basis and those that are judged to be uncollectable are written off when identified.

At 30 June 2010, there are no debts which are assessed as being uncollectable and, hence, there is no provision for bad and doubtful debts.

Interest revenue is recognised using the effective interest method as set out in AASB 139 *Financial Instruments: Recognition and Measurement*.

1.6 Gains

Gains from disposal of assets are recognised when control of the asset has passed to the buyer.

1.7 Transactions with the Australian Government as Owner

Equity Injections

Amounts appropriated which are designated as 'equity injections' for a year (less any formal reductions) are recognised directly in contributed equity in that year.

Restructuring of Administrative Arrangements

The net assets received from the former Department of Infrastructure, Transport, Regional Development and Local Government under a restructuring of administrative arrangements were recognised at their book value directly against contributed equity.

1.8 Employee Benefits

Liabilities for services rendered by employees are recognised at the reporting date to the extent that they have not been settled.

Liabilities for 'short-term employee benefits' (as defined in AASB 119 Employee Benefits) and termination benefits due within twelve months of end of reporting period are measured at their nominal amounts. The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

All other employee benefit liabilities are measured at the present value of the estimated future cash outflows to be made in respect of services provided by employees up to the reporting date.

Leave

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of the ATSB is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will applied at the time the leave is taken, including the ATSB's employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave has been determined by reference to Australian Government Shorthand Method under FMO 2009–2010 as at 30 June 2010. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Separation and Redundancy

Provision is made for separation and redundancy benefit payments. The ATSB recognises a provision for termination when it has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

The ATSB made separation and redundancy payments in 2009–10 of $158,286 – refer to Note 3A Employee Benefits.

Superannuation

Staff of the ATSB are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap).

The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap is a defined contribution scheme.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported by the Department of Finance and Deregulation as an Administered item.

The ATSB makes employer contributions to the employee superannuation scheme at rates determined by an actuary to be sufficient to meet the current cost to the Government of the superannuation entitlements of the Agency's employees. ATSB accounts for the contributions as if they were contributions to defined contribution plans.

The liability for superannuation recognised as at reporting date represents outstanding contributions for the final fortnight of the year.

1.9 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of leased assets. In operating leases, the lessor effectively retains substantially all such risks and benefits.

Where an asset is acquired by means of a finance lease, the asset is capitalised at either the fair value of the lease property or, if lower, the present value of minimum lease payments at the inception of the contract and a liability is recognised at the same time and for the same amount.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a straight-line basis which is representative of the pattern of benefits derived from the leased assets.

1.10 Borrowing Costs

All borrowing costs are expensed as incurred.

1.11 Cash and Cash Equivalents

Cash and cash equivalents includes cash on hand, cash held with outsiders, demand deposits in bank accounts with an original maturity of 3 months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value. Cash is recognised at its nominal amount.

1.12 Financial Assets

The ATSB classifies its financial assets in the following categories:

- financial assets at fair value through profit or loss;
- held-to-maturity investments; and
- loans and receivables.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition.

Financial Assets at Fair Value Through Profit or Loss

Financial assets are classified as financial assets at fair value through profit or loss where the financial assets:

- have been acquired principally for the purpose of selling in the near future;
- are a part of an identified portfolio of financial instruments that the Agency manages together and has a recent actual pattern of short-term profit-taking; or
- are derivatives that are not designated and effective as a hedging instrument.

Assets in this category are classified as current assets.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest earned on the financial asset.

Financial assets are recognised and derecognised upon trade date.

1.13 Financial Liabilities

Financial liabilities are classified as either financial liabilities 'at fair value through profit or loss' or other financial liabilities.

Financial liabilities are recognised and derecognised upon 'trade date'.

Financial Liabilities at Fair Value through Profit or Loss

Financial liabilities at fair value through profit or loss are initially measured at fair value. Subsequent fair value adjustments are recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability.

Other Financial Liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

1.14 Contingent Liabilities and Contingent Assets

Contingent liabilities and contingent assets are not recognised in the Balance Sheet but are reported in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote.

The ATSB had no contingent assets or liabilities as at 30 June 2010.

1.15 Financial Guarantee Contracts

Financial guarantee contracts are accounted for in accordance with AASB 139 *Financial Instruments: Recognition and Measurement*. They are not treated as a contingent liability, as they are regarded as financial instruments outside the scope of AASB 137 *Provisions, Contingent Liabilities and Contingent Assets*.

1.16 Acquisition of Assets

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and income at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor agency's accounts immediately prior to the restructuring.

1.17 Plant and Equipment

Asset Recognition Threshold

Purchases of plant and equipment are recognised initially at cost in the Balance Sheet, except for purchases costing less than $2,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located.

Revaluations

The ATSB has plant and equipment assets only and the fair values for each asset are measured at market selling price.

Following initial recognition at cost, plant and equipment are carried at fair value less subsequent accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date.

At 30 June 2010, the fair value of plant and equipment was the written down value.

Depreciation

Depreciable plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to the ATSB using, in all cases, the straight-line method of depreciation.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

Depreciation rates applying to applying to Plant and Equipment are based on useful lives of 1 to 10 years.

Impairment

All assets were assessed for impairment at 30 June 2010. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if ATSB were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

De-recognition

An item of property, plant and equipment is de-recognised upon disposal or when no further future economic benefits are expected from its use or disposal.

1.18 Intangibles

The useful lives of various software held by the ATSB are from 1 to 5 years. The ATSB's intangible assets comprise internally developed software for internal use. These assets are carried at cost less accumulated amortisation and accumulated impairment losses. Software is amortised on a straight line basis over its anticipated useful life.

All software assets were assessed for indications of impairment and amortisation periods reviewed as at 30 June 2010.

1.19 Taxation / Competitive Neutrality

The Agency is exempt from all forms of taxation except Fringe Benefits Tax (FBT) and the Goods and Services Tax (GST). Revenues, expenses and assets are recognised net of GST except:

- where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- for receivables and payables.

Note 2: Events after the reporting period

No events have occurred after balance date that should be brought to account or noted in the 2009–10 financial statements.

Note 3 – Expenses

	2010 $'000
NOTE 3A – EMPLOYEE BENEFITS	
Wages and salaries	10,350
Superannuation:	
Defined contribution plans	366
Defined benefit plans	1,440
Leave and other entitlements	1,495
Separation and redundancies	158
Other employee expenses	39
Total employee benefits	**13,848**
NOTE 3B – SUPPLIERS	
Goods and Services	
Office rent	1,636
Travel expenses	1,121
Training and conferences	616
Information technology	597
Services from consultants	488
Services from Department of Infrastructure	483
Contract staff	374
Communications	283
Legal	274
Stationery and supplies	235
Publications and printing	177
Investigation services	123
Workers compensation	98
Health and safety	82
Other goods and services	713
Total goods and services	**7,300**
Goods and services are made up of:	
Goods from related entities	–
Goods from external parties	235
Services from related entities	3,887
Services from external parties	3,178
Total goods and services	**7,300**

Note 3 – Continued

	2010 $'000
NOTE 3C – DEPRECIATION AND AMORTISATION	
Depreciation:	
Plant and equipment	373
Total depreciation	**373**
Amortisation:	
Intangibles:	
Purchased software	17
Internally developed software	1,283
Total amortisation	**1,300**
Total depreciation and amortisation	**1,673**
NOTE 3D – FINANCE COSTS	
Finance leases	6
Total finance costs	**6**
NOTE 3E – WRITE DOWN AND IMPAIRMENT OF ASSETS	
Asset write-downs and impairments from:	
Write-down of plant and equipment	13
Total write-down and impairment of assets	**13**

Note 4 – Income

	2010 $'000
REVENUE	
NOTE 4A – SALE OF GOODS AND RENDERING OF SERVICES	
Rendering of services – related entities	555
Rendering of services – external entities	105
Total sale of goods and rendering of services	**660**
GAINS	
NOTE 4B – SALE OF ASSETS	
Plant and equipment	
Proceeds from sale	1
Carrying value of items sold	–
Total gain from sale of assets	**1**
NOTE 4C – OTHER GAINS	
Resources received free of charge:	
Audit fees	45
Total other revenue	**45**
NOTE 4D – REVENUE FROM GOVERNMENT	
Appropriations	
Departmental outputs	22,423
Total revenue from Government	**22,423**

Note 5 – Financial Assets

	2010 $'000
NOTE 5A – CASH AND CASH EQUIVALENTS	
Cash on hand or on deposit	22
Total cash and cash equivalents	**22**
NOTE 5B – TRADE AND OTHER RECEIVABLES	
Goods and Services:	
Related entities	2
External parties	18
Total receivables for goods and services	**20**
Appropriations receivable	
For existing outputs	8,126
Total appropriations receivable	**8,126**
Other receivables	
GST receivable from the ATO	261
Total other receivables	**261**
Total trade and other receivables	**8,407**
Receivables are expected to be recovered in:	
No more than 12 months	8,407
Total trade and other receivables (net)	**8,407**
Receivables are aged as follows	
Not overdue	8,405
Overdue more than 90 days	2
Total receivables (gross)	**8,407**

Note 6 – Non Financial Assets

	2010 $'000
NOTE 6A – PLANT AND EQUIPMENT	
At fair value	1,530
Accumulated depreciation	(479)
Total plant and equipment	**1,051**

No indicators of impairment were found for plant and equipment.

No plant or equipment is scheduled to be sold or disposed of within the next 12 months.

NOTE 6B – RECONCILIATION OF PLANT AND EQUIPMENT	
S32 transfer as at 1 July 2009	1,384
Additions by purchase	53
Depreciation expense	(373)
Impairment recognised in the operating result	(13)
Net book value at 30 June 2010	**1,051**
Represented by:	
Gross book value	1,530
Accumulated depreciation	(479)
	1,051

The plant and equipment transferred under S32 of the FMA Act 1997 comprised computer and laboratory equipment.

NOTE 6C – INTANGIBLES (COMPUTER SOFTWARE)	
Internally developed in progress	192
Internally developed in use	3,758
Purchased software	95
Total intangibles (gross) – computer software	**4,045**
Accumulated amortisation	(1,300)
Total intangibles (net) – computer software	**2,745**

No intangibles are scheduled to be sold or disposed of within the next 12 months. No indicators of impairment were found for intangible assets.

Note 6 – Continued

NOTE 6D RECONCILIATION OF INTANGIBLES (COMPUTER SOFTWARE)

			2010 $'000
	Internally Developed $'000	Purchased $'000	Total $'000
As at 1 July 2009			
Gross book value	3,758	33	3,791
Additions by purchase	–	62	62
Additions – internal development	192	–	192
Amortisation	(1,283)	(17)	(1,300)
Net book value at 30 June 2010	**2,667**	**78**	**2,745**
Represented by:			
Gross book value	3,950	95	4,045
Accumulated amortisation and impairment	(1,283)	(17)	(1,300)
	2,667	**78**	**2,745**

NOTE 6E – OTHER NON FINANCIAL ASSETS

Prepayments	104
Total other non-financial assets	**104**

All prepayments are expected to be recovered within 12 months. No indicators of impairment were found for other non-financial assets.

Note 7 – Payables

	2010 $'000
NOTE 7A – SUPPLIERS	
Trade creditors and accruals	368
Total supplier payables	368
Supplier payables expected to be paid in the next 12 months:	
Related entities	57
External parties	311
Total supplier payables	**368**
Settlement is usually made within 30 days.	
NOTE 7B – OTHER PAYABLES	
Salaries and wages	698
Superannuation	38
Unearned revenue	16
Total other payables	**752**

All other payables are expected to be settled within 12 months.

Note 8 – Interest Bearing Liabilities

	2010 $'000
NOTE 8A – LOANS	
Bank overdraft	160
Total loans	**160**

There is no interest charged by the Reserve Bank on the overdraft.

NOTE 8B – LEASES	
Finance Leases	72
Total finance leases	**72**
Payable:	
Within 1 year:	
Minimum lease payments	50
Deduct future finance charges	(2)
In 1 to 5 years:	
Minimum lease payments	25
Deduct future finance charges	(1)
Finance leases recognised on the balance sheet	**72**

Finance leases exist in relation to certain office equipment assets. The leases are non-cancellable and for fixed terms averaging 4 years. The interest rates implicit in the leases average 5.97%. The lease assets secure the lease liabilities. The ATSB guarantees the residual values of the lease assets. There are no contingent rentals.

Note 9 – Provisions

	2010 $'000
NOTE 9 – EMPLOYEE PROVISIONS	
Leave	3,687
Total employee provisions	**3,687**
Employee provisions are expected to be settled:	
No more than 12 months	1,347
More than 12 months	2,340
Total employee provisions	**3,687**

Note 10 – Restructuring

NOTE 10A – DEPARTMENTAL RESTRUCTURING

Prior to 1 July 2009, the ATSB was a Division of the Department of Infrastructure, Transport, Regional Development and Local Government. On 1 July 2009, the ATSB became an independent Statutory Agency with a Commission structure operating under the *Financial Management and Accountability Act 1997.* The net book values of assets and liabilities transferred to the ATSB and recognised as at 1 July 2009 were:

	2010 $'000
Department of Infrastructure, Transport, Regional Development and Local Government	
ASSETS	
Financial assets	
Appropriation receivable	6,413
Other receivables	49
Total financial assets	**6,462**
Non-financial assets	
Infrastructure, plant and equipment	1,384
Intangibles	3,791
Other non-financial assets	88
Total non-financial assets	**5,263**
Total assets recognised	**11,725**
LIABILITIES	
Payables	
Suppliers	68
Other payables	187
Total payables	**255**
Interest bearing liabilities	
Leases	134
Total interest bearing liabilities	**134**
Provisions	
Employee provisions	3,023
Total Provisions	**3,023**
Total liabilities recognised	**3,412**
Net assets assumed equals Contributed Equity	**8,313**

Note 11 – Cash Flow Reconciliation

	2010 $'000
Reconciliation of cash and cash equivalents as per Balance Sheet and Cash Flow Statement:	
Cash and cash equivalents as per:	
Cash flow statement	(138)
Balance sheet	
Cash on hand and at bank	22
Overdraft	(160)
	(138)
Reconciliation of net cost of services to net cash from operating activities:	
Net cost of services	(22,134)
Add revenue from Government	22,423
Adjustments for non-cash items	
Add depreciation and amortisation	1,673
Add write down of plant and equipment	13
Less gain on disposal of assets	(1)
Changes in assets and liabilities	
Increase in net receivables	(3,268)
Increase in prepayment	(14)
Increase in employee provisions	665
Increase in supplier payables	300
Increase in unearned revenue	16
Increase in other payables	557
Net cash used by operating activities	**230**

Note 12 – Senior Executive Remuneration

	2010
NOTE 12A – ACTUAL REMUNERATION PAID TO SENIOR EXECUTIVES	
The number of senior executives who received:	
$160,000 to $174,999	1
$190,000 to $204,999	2
$205,000 to $219,999	2
$265,000 to $279,999	1
	6

Total expense recognised in relation to Senior Executive employment

	$
Short-Term Employee Benefits	
Salary (including annual leave taken)	1,092,093
Changes in annual leave provision	23,192
Total short-term employee benefits	**1,115,285**
Superannuation (post employment benefits)	156,276
Other long term benefits	(4,610)
Total	**1,266,951**

During the year, the ATSB recognised a redundancy benefit of $158,286 to one senior executive.

NOTE 12B – SALARY PACKAGES FOR SENIOR EXECUTIVES AS AT 30 JUNE

Average annualised remuneration packages for substantive Senior Executives

	No. SES	Base Salary $ (incl annual leave)	Total Remuneration Package $ **
Total Remuneration *			
$205,000 to $219,999	4	184,274	**208,779**
$350,000 to $364,999	1	259,186	**352,678**

* Excluding acting arrangements.

**Non salary elements available to Senior Executives includes superannuation.

Note 13 – Remuneration of Auditors

	2010 $'000
Financial statement audit services were provided free of charge	
The fair value of the services provided was:	45

No other services were provided by the Auditor-General.

Note 14 – Financial Instruments

	Notes	2010 $'000
NOTE 14A – CATEGORIES OF FINANCIAL INSTRUMENTS		
Financial Assets		
Loans and receivables		
Trade receivables	5B	20
Cash and cash equivalents		
Bank accounts	5A	22
Carrying amount of financial assets		**42**
Financial liabilities		
At amortised cost:		
Trade creditors	7A	368
Bank overdraft	8A	160
Finance lease	8A	72
Total carrying amount of financial liabilities		**600**
NOTE 14B – NET EXPENSE FROM FINANCIAL LIABILITIES		
Financial liabilities at amortised cost		
Interest expense	3D	6

Note 14 – Financial Instruments continued

NOTE 14C – FAIR VALUE OF FINANCIAL INSTRUMENTS

	Notes	Carrying Amount 2010 $,000	Fair Value 2010 $,000
Financial assets			
Cash and cash equivalents	5A	22	22
Trade receivables	5B	20	20
Total financial assets		**42**	**42**
Financial liabilities			
Trade creditors	7A	368	368
Bank loan (overdraft)	8A	160	160
Finance lease	8B	72	72
Total financial liabilities		**600**	**600**

NOTE 14D – CREDIT RISK

The ATSB is exposed to minimal credit risk as loans and receivables are cash, trade and other receivables. The ATSB has assessed the risk of default on payment and has allocated nil in 2010 to an impairment allowance account. The following illustrates the ATSB's gross exposure to credit risk.

	2010 $'000
Financial assets	
Trade receivables	20
Total	**20**

The ATSB holds no collateral to mitigate against credit risk.

Note 14 – Financial Instruments continued

NOTE 14D – CREDIT RISK CONTINUED

Credit quality of financial instruments not past due or individually determined as impaired:

	Not past due nor impaired 2010 $'000	Past due but not impaired 2010 $'000
Trade receivables	18	2
Total	**18**	**2**

The past due trade receivable is over 90 days due, but not assessed as impaired.

NOTE 14E – LIQUIDITY RISK

The ATSB's financial liabilities are trade payables and finance leases on office equipment. Given the financial position of the ATSB and the source and nature of its future funding from the Government, the risk that the ATSB would be unable to meet its financial obligations to its creditors is extremely low.

Maturities for non-derivative financial liabilities:

	On demand $'000	Within 1 year $'000	1 to 2 years $'000	2 to 5 years $'000	> 5 years $'000	Total $'000
Trade creditors	–	368	–	–	–	368
Bank loan (overdraft)	160	–	–	–	–	160
Finance leases	–	48	19	5	–	72
Total	**160**	**416**	**19**	**5**	**–**	**600**

The ATSB has no derivative financial instruments.

NOTE 14F – MARKET RISK AND INTEREST RATE RISK

The ATSB holds basic financial instruments which do not expose the Agency to market risks. The ATSB is not exposed to currency or other price risks.

The only interest bearing items on the balance sheet are the overdraft and the finance leases on office equipment. The leases were established at a fixed rate of interest and repayments do not fluctuate with movements of market interest rates.

Note 15 – Appropriations

TABLE A1: ACQUITTAL OF AUTHORITY TO DRAW CASH FROM THE CONSOLIDATED REVENUE FUND (CRF) FOR ORDINARY ANNUAL SERVICES APPROPRIATIONS

Particulars	Departmental Outputs	2010 $'000
Opening balance as at 1 July 2009		–
Appropriation Act 2009–10:		
Appropriation Act (No. 1, 3 & 5) as passed		22,336
Appropriations reduced (Sections 10, 11 and 12)		(1,312)
FMA Act 1997:		
Appropriations to take account of recoverable GST (Section 30A)		357
Relevant agency receipts (Section 31)		708
Transfer of agency functions (Section 32)		6,500
Total appropriation available for payments		**28,589**
Less cash payments made during the year (GST inclusive)		20,601
Balance of authority to draw cash from the CRF for ordinary annual services appropriations and as represented by:		**7,988**
Cash at bank		22
Appropriations receivable		8,126
Less bank loan (overdraft)		(160)
Total as at 30 June 2010		**7,988**

Note 16 – Compensation and Debt Relief

No 'Act of Grace' expenses were made during the reporting period, and there were no amounts owing as at year end.

No waivers of amounts owing to the Australian Government were made pursuant to subsection 34(1) of the *Financial Management and Accountability Act 1997.*

No payments were provided under the Compensation for Detriment caused by Defective Administration Scheme during the reporting period.

No ex-gratia payments were provided for during the reporting period.

No payments were provided in special circumstances relating to APS employment pursuant to S73 of the *Public Service Act 1999* during the reporting period.

Note 17 – Reporting of Outcomes

NOTE 17A – NET COST OF OUTCOME DELIVERY

OUTCOME 1	2010 $'000
Expenses	
Departmental	22,840
Income from non-government sector	
Activities subject to cost recovery	105
Gain on disposal of assets	1
Total income from non-government sector	106
Other own source income	600
Total own source income	**706**
Net cost of outcome delivery	**22,134**

Net costs shown include intra-government costs that are eliminated in calculating the actual Budget Outcome.

NOTE 17B – MAJOR CLASSES OF DEPARTMENTAL EXPENSE, INCOME, ASSETS AND LIABILITIES BY OUTCOMES

OUTCOME 1	2010 $'000
Departmental expenses	
Employee benefits	13,848
Supplier expenses	7,300
Depreciation and amortisation	1,673
Finance costs	6
Write-down of assets	13
Total	**22,840**
Departmental income	
Income from Government	22,423
Cost recovery	660
Gain on sale of assets	1
Other gain	45
Total	**23,129**

Note 17 – Reporting of Outcomes Continued

NOTE 17B – MAJOR CLASSES OF DEPARTMENTAL EXPENSE, INCOME, ASSETS AND LIABILITIES BY OUTCOMES CONTINUED

OUTCOME 1	2010 $'000
Departmental assets	
Cash and cash equivalents	22
Trade and other receivables	8,407
Plant and equipment	1,051
Intangibles	2,745
Other	104
Total	**12,329**
Departmental liabilities	
Suppliers	368
Other payables	752
Interest bearing liabilities	232
Employee provisions	3,687
Total	**5,039**

Compliance Index

PART OF REPORT	DESCRIPTION	REQUIREMENT	LOCATION (PAGE)
	Letter of transmittal	Mandatory	1
	Table of contents	Mandatory	iii–iv
	Index	Mandatory	162
	Glossary	Mandatory	157
	Contact officer(s)	Mandatory	2
	Internet home page address and Internet address for report	Mandatory	2
Review by CEO	Review by CEO	Mandatory	3
	Summary of significant issues and developments	Suggested	3–7
	Overview of department's performance and financial results	Suggested	25–41
	Outlook for following year	Suggested	7
	Significant issues and developments – portfolio	Portfolio departments – suggested	N/A
Overview	Overview description	Mandatory	8
	Role and functions	Mandatory	8–9
	Organisational structure	Mandatory	11
	Outcome and program structure	Mandatory	20

Compliance Index

PART OF REPORT	DESCRIPTION	REQUIREMENT	LOCATION (PAGE)
	Where outcome and program structures differ from PB Statements/PAES or other portfolio statements accompanying any other additional appropriation bills (other portfolio statements), details of variation and reasons for change	Mandatory	N/A
	Portfolio structure	Portfolio departments — mandatory	N/A
Report on Performance	Review of performance during the year in relation to programs and contribution to outcomes	Mandatory	25–27
	Actual performance in relation to deliverables and KPIs set out in PB Statements/PAES or other portfolio statements	Mandatory	25–27
	Performance of purchaser/provider arrangements	If applicable, suggested	N/A
	Where performance targets differ from the PBS/ PAES, details of both former and new targets, and reasons for the change	Mandatory	N/A
	Narrative discussion and analysis of performance	Mandatory	30–41
	Trend information	Mandatory	N/A
	Significant changes in nature of principal functions/ services	Suggested	N/A
	Factors, events or trends influencing departmental performance	Suggested	N/A
	Contribution of risk management in achieving objectives	Suggested	N/A

Compliance Index

PART OF REPORT	DESCRIPTION	REQUIREMENT	LOCATION (PAGE)
	Social justice and equity impacts	Suggested	N/A
	Performance against service charter customer service standards, complaints data, and the department's response to complaints	If applicable, mandatory	N/A
	Discussion and analysis of the department's financial performance	Mandatory	28–29
	Discussion of any significant changes from the prior year or from budget.	Suggested	N/A
	Agency resource statement and summary resource tables by outcomes	Mandatory	103–104
	Developments since the end of the financial year that have affected or may significantly affect the department's operations or financial results in future	If applicable, mandatory	N/A
Management Accountability			
Corporate Governance			
	Statement of the main corporate governance practices in place	Mandatory	90
	Names of the senior executive and their responsibilities	Suggested	12–19
	Senior management committees and their roles	Suggested	91–92
	Corporate and operational planning and associated performance reporting and review	Suggested	90–93
	Approach adopted to identify areas of significant financial or operational risk	Suggested	92–93

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PART OF REPORT	DESCRIPTION	REQUIREMENT	LOCATION (PAGE)
	Agency heads are required to certify that their agency complies with the Commonwealth Fraud Control Guidelines.	Mandatory	1
	Policy and practices on the establishment and maintenance of appropriate ethical standards	Suggested	93
	How nature and amount of remuneration for SES officers is determined	Suggested	142
External Scrutiny	Significant developments in external scrutiny	Mandatory	93
	Judicial decisions and decisions of administrative tribunals	Mandatory	93
	Reports by the Auditor–General, a Parliamentary Committee or the Commonwealth Ombudsman	Mandatory	93
Management of Human Resources	Assessment of effectiveness in managing and developing human resources to achieve departmental objectives	Mandatory	94–96
	Workforce planning, staff turnover and retention	Suggested	N/A
	Impact and features of enterprise or collective agreements, determinations, common law contracts and AWAs	Suggested	94–95
	Training and development undertaken and its impact	Suggested	96
	Occupational health and safety performance	Suggested	105
	Productivity gains	Suggested	30–40

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PART OF REPORT	DESCRIPTION	REQUIREMENT	LOCATION (PAGE)
	Statistics on staffing	Mandatory	95
	Enterprise or collective agreements, determinations, common law contracts and AWAs	Mandatory	94–96
	Performance pay	Mandatory	95
Assets management	Assessment of effectiveness of assets management	If applicable, mandatory	97–101
Purchasing	Assessment of purchasing against core policies and principles	Mandatory	97
Consultants	The annual report must include a summary statement detailing the number of new consultancy services contracts let during the year, the total actual expenditure on all new consultancy contracts let during the year (inclusive of GST), the number of ongoing consultancy contracts that were active in the reporting year, and the total actual expenditure in the reporting year on the ongoing consultancy contracts (inclusive of GST). The annual report must include a statement noting that information on contracts and consultancies is available through the AusTender website. (Additional information as in Attachment D to be available on the Internet or published as an appendix to the report. Information **must** be presented in accordance with the pro forma as set out in Attachment D.)	Mandatory	97–100
Australian National Audit Office Access Clauses	Absence of provisions in contracts allowing access by the Auditor–General	Mandatory	101
Exempt contracts	Contracts exempt from the AusTender	Mandatory	101

Compliance Index

PART OF REPORT	DESCRIPTION	REQUIREMENT	LOCATION (PAGE)
Commonwealth Disability Strategy	Report on performance in implementing the Commonwealth Disability Strategy	Mandatory	102
Financial Statements	Financial Statements	Mandatory	113–150
Other Information			
	Occupational health and safety (section 74 of the *Occupational Health and Safety Act 1991*)	Mandatory	105
	Freedom of Information (subsection 8(1) of the *Freedom of Information Act 1982*)	Mandatory	106–109
	Advertising and Market Research (*Section 311A of the Commonwealth Electoral Act 1918*) and statement on advertising campaigns	Mandatory	110
	Ecologically sustainable development and environmental performance (Section 516A of the *Environment Protection and Biodiversity Conservation Act 1999*)	Mandatory	111
Other	Grant programs	Mandatory	112
	Correction of material errors in previous annual report	If applicable, mandatory	N/A
	List of Requirements	Mandatory	151–156

GLOSSARY

Accident	An investigable matter involving a transport vehicle where: a) A person dies or suffers serious injury as a result of an occurrence associated with the operation of a vehicle. b) The vehicle is destroyed or seriously damaged as a result of an occurrence associated with the operation of the vehicle. c) Any property is destroyed or seriously damaged as a result of an occurrence associated with the operation of the vehicle.
Accident Investigation Commission (AIC)	The Papua New Guinea Government institution responsible for the investigation of safety deficiencies in aviation transport
Aerial work	Aircraft operations, including ambulance and emergency medical services, agriculture, mustering, search and rescue, fire control, and survey and photography
Agricultural operations	Operations involving the carriage and/or spreading of chemicals, seed, fertiliser or other substances for agricultural purposes, including the purposes for pest and disease control
ASRS	Aviation Self Reporting Scheme
ATSB safety action	Formal activities conducted by the ATSB to initiate safety action by relevant organisations to address a safety issue. Includes safety recommendations and safety advisory notices
Australian Accredited Representative	An Australian appointed representative appointed in the case of safety occurrences involving Australian registered aircraft outside Australian territory, normally an ATSB investigator
Blood-borne pathogen	A blood-borne agent causing disease that can be spread by contamination by blood
Catastrophic accident	Sudden disastrous investigable matter involving a transport vehicle
Charter	Operations that involve the carriage of cargo or passengers but do not involve scheduled flights; the lack of scheduled flights and fixed departure and arrival points distinguishes charter operations from RPT operations
Commercial air transport	Commercial air transport refers to scheduled and non-scheduled commercial operations used for the purposes of transporting passengers and/or cargo for hire or reward; specifically, this includes high capacity RPT, low capacity RPT, and charter operations

Glossary (continued)

Contributing safety factor	A safety factor that, if it had not occurred or existed at the relevant time, then: • The occurrence would probably not have occurred • Adverse consequences associated with the occurrence would probably not have occurred or have been as serious • Another contributing safety factor would probably not have occurred or existed
CVR	Cockpit Voice Recorder
Defined Interstate Rail network (DIRN) —	The DIRN comprises over 10,000 route kilometres of standard gauge interstate track linking the Capital cities of mainland Australia.
Directly Involved Party (DIP)	Those individuals or organisations that were directly involved in a transport safety occurrence or may have influenced the circumstances that led to an occurrence and/or whose reputations are likely to be affected following the release of the investigation report
Fatal accident	A transport accident in which at least one fatality results within 30 days of the accident
Fatality/Fatal injury	Any injury acquired by a person involved in a transport accident and which results in death within 30 days of the accident
Flight recorder (black box)	A recorder placed in an aircraft for the purpose of facilitating the investigation of an aircraft accident or incident.
Flying training	Flying under instruction for the issue or renewal of a licence, rating, aircraft type endorsement or any other type of flying aimed at upgrading an individual's flight qualification, including solo navigation exercises conducted as part of a course of applied flying training; check and training operations conducted by RPT operators are also included
General aviation (GA)	All flying activities outside of scheduled (RPT) and non-scheduled (charter) passenger and freight operations, including aerial work, flying training, private/business operations, and sports aviation; general aviation in this report does not include Australian non-VH registered aircraft
Hours flown	Calculated from the time that the wheels start, with the intention of flight, to the time the wheels stop after completion of the flight
Human factors	The practice of applying scientific knowledge from varied, mostly human science disciplines such as psychology, medicine, anthropometrics and physiology to designing, building, maintaining and managing systems and products; includes 'Ergonomics'

Glossary (continued)

Immediately reportable matter	A serious transport safety matters that covers occurrences such as: • accidents involving death • serious injury • destruction or serious damage of vehicles or property • when an accident nearly occurs
Incident	An occurrence, other than an accident, associated with the operation of a transport vehicle that affects or could affect the safety of operation
Military aviation	Any aircraft registered to a military authority such as the Australian Defence Force
Minor injury	An injury sustained by a person in an accident that was not a fatal or serious injury and does not require hospitalisation
Missing aircraft	An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.
Multi-modal	Across the three modes: aviation, marine and rail
National Transportation Safety Committee (NTSC)	Indonesian Government institution responsible for the investigation of safety deficiencies in aviation, maritime and land transport
Occurrences — accidents and incidents	Occurrences are reportable matters: either an immediately reportable matter (IRM) or routine reportable matter (RRM). They comprise accidents, serious incidents and incidents.
Other aerial work	Includes operations conducted for the purposes of aerial work other than 'flying training' and 'agricultural operations'; operations classified as other aerial work include aerial surveying and photography, spotting, aerial stock mustering, search and rescue, ambulance, towing (including glider, target and banner towing), advertising, cloud seeding, fire fighting, parachute dropping, and coastal surveillance
Portfolio Budget Statements (PBS)	These statements explain the provisions of the Appropriation Bills (Budget Bills), that is, where the appropriate funds are going to be spent.
Private/business	Private flying is conducted for recreational or personal transport, while the business category refers only to the use of aircraft as a means of transport to support a business or profession without the aircraft generating revenue directly.

Glossary (continued)

Regular public transport (RPT)	Refers to aircraft that transport passengers and/or cargo according to fixed schedules and fixed departure and arrival points in exchange for monetary reward; these services can be further divided into low and high capacity aircraft: • Low capacity RPT—An RPT aircraft that provides a maximum of 38 passenger seats, or a maximum payload no greater than 4,200 kg • High capacity RPT—An RPT aircraft that provides more than 38 passenger seats, or a maximum payload greater than 4,200 kg
Registered Training Organisation (RTO)	An organisation registered, in accordance with the Australian Quality Training Framework Standards for Registered Training Organisations, to provide specific vocational education and training and/or assessment services
REPCON	Report Confidential—The aviation confidential reporting scheme
REPCON Marine	Report Confidential—The marine confidential reporting scheme
RFDS	Royal Flying Doctor Service
Safety action	The things that organisations and individuals do in response to the identification of safety issues in order to prevent accidents and incidents. There are two main types: • ATSB safety action • Non-ATSB safety action.
Safety advisory notice	Formal advice by the ATSB to an organisation or relevant parts of the aviation industry that it should consider the safety issue and take action where it believes it is appropriate; a safety advisory notice is a 'softer' output to a safety recommendation used for less significant safety issues when the available evidence is more limited or when the target audience is not a specific organisation.
Safety factor	An event or condition that increases safety risk; in other words, something that increases the likelihood of an occurrence, and/or the severity of the adverse consequences associated with an occurrence
Safety issues	A safety factor that: • can reasonably be regarded as having the potential to adversely affect the safety of future operations • is a characteristic of an organisation or a system, rather than a characteristic of a specific individual, or characteristic of an operational environment at a specific point in time
Safety recommendation	ATSB safety recommendations are formal recommendations by the ATSB to an organisation for it to address a specific safety issue. They focus on stating the problem (i.e. the description of the safety issue.) They do not identify specific solutions for reducing risk.
SAR	Search and rescue

Glossary (continued)

Serious incident	An incident involving circumstances indicating that an accident nearly occurred
Serious injury	An injury which is sustained by a person in an accident and which: a) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received b) results in a fracture of any bone (except simple fractures of fingers, toes, or nose) c) involved lacerations which cause severe haemorrhage, nerve, muscle or tendon damage d) involves injury to any internal organ e) involves second or third degree burns, or any burns affecting more than five per cent of the body surface a) involves verified exposure to infectious substances or injurious radiation
Sports aviation	This category includes aircraft excluded from the RPT, GA or military aircraft categories including ultralights, glider, hang gliders, rotorcraft and balloon aviation. Most, if not all, sport aviation craft are registered with various sporting bodies rather than with the Civil Aviation Safety Authority (CASA), although exceptions to this rule occur. Sports aviation also includes parachute operations and acrobatics. Sports aviation in this report does not include Australian non-VH registered aircraft.
Statutory agency	A body or group of persons declared by an Act to be a Statutory Agency for the purposes of the Public Service Act 1999.
Systemic failure	A breakdown in the system as a whole
Transport safety matter	As defined by Transport Safety Investigation Act 2003, these matters consist of occurrences in which: a) the transport vehicle is destroyed b) the transport vehicle is damaged c) the transport vehicle is abandoned, disabled, stranded or missing in operation d) a person dies as a result of an occurrence associated with the operation of the transport vehicle e) a person is injured or incapacitated as a result of an occurrence associated with the operation of the transport vehicle f) any property is damaged as a result of an occurrence associated with the operation of the transport vehicle g) the transport vehicle is involved in a near-accident h) the transport vehicle is involved in an occurrence that affected, or could have affected, the safety of the operation of the transport vehicle i) something that occurred that affected, is affecting, or might affect transport safety.

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Australian Government

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The ATSB is Australia's national transport safety investigator.
The Bureau's investigations seek to identify safety issues and encourage safety action to reduce the risk of future accidents and incidents.