Australian Government
Australian Transport Safety Bureau

ATSB Annual Report

2012–13

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Australian Government

Australian Transport Safety Bureau

ATSB Annual Report

2012–13

Australian Government
Australian Transport Safety Bureau

Chief Commissioner

Our reference: ATSB 12/299

21 October 2013

The Hon Warren Truss MP
Deputy Prime Minister and
Minister for Infrastructure and Regional Development
Parliament House
CANBERRA ACT 2600

Dear Deputy Prime Minister

We are pleased to present the Annual Report of the Australian Transport Safety Bureau, reporting on the ATSB's operations for the year ended 30 June 2013.

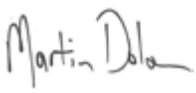
This Annual Report has been prepared in accordance with section 63A of the *Transport Safety Investigation Act 2003* (TSI Act). Subsection 63A (1) of that Act requires that we give this report to you.

In addition to fulfilling the requirements of section 63A of the TSI Act, the report is consistent with the normal provisions for Annual Reports specified under the *Requirements for Annual Reports for Departments, Executive Agencies and FMA Act Bodies* issued on 24 June 2013 and summarises the ATSB's performance for the year. Accordingly, we recommend that you make the report available to the Parliament as required by the guidelines.

The report 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.

The Chief Commissioner also certifies, under section 9 of Guideline 1 of the *Commonwealth Fraud Control Guidelines*, that he is 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



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Commissioner

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Information about this report

Information about this report is available from:

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Other sources of information

Annual reports are available in printed format from participating libraries around Australia under the Australian Government library deposit and free issue scheme. A list of these participating libraries can be found at www.finance.gov.au

This report is also available from our website at www.atsb.gov.au

Before making decisions on the basis of information contained in this report, you are advised to contact the ATSB. This report was up to date at the time of publication, but details may change over time due to legislative, policy and other developments.

Section 1

Chief Commissioner's review 2012–13

2012–13 was the ATSB's fourth year in its current form as a fully independent agency within the Infrastructure and Transport portfolio. It has been a productive year. Our investigations yielded a range of important safety messages that touched every element of transport, from the manufacturing of vehicles through to the effectiveness of operators' systems and the routine procedures used in the course of a working day. Especially satisfying has been the conclusion of several unusually large and complex investigations.

It was also a year in which we developed as an organisation, moving beyond the consolidation of our business systems and governance arrangements, and devoting more of our attention to enhancing our systems and capabilities. By improving and expanding these resources, the ATSB is able to bring a better perspective to bear—both on transport safety in Australia and on our own operations. We can now identify safety trends sooner, gauge the implications more thoroughly, and share our insights with the transport community more quickly and more directly.

One of the most significant improvements has been the augmentation of our enterprise system, the Safety Investigation Information Management System (SIIMS). SIIMS is an electronic management system that captures and organises information about transport accidents, tracking them from the point of notification through to the completion of investigation. The new version gives our investigators additional tools to manage their work while affording our managers greater visibility of our work on hand. This will help us to plan and manage our workloads more effectively and to gauge the implications of shifting priorities as new issues requiring investigation emerge.

We have also developed an automated event risk classification system. This will assign a risk to every aviation occurrence reported to the ATSB, based on the type of operation and type of occurrence. The event risk ratings are used in a number of ways. In 2012–13 ratings were provided twice a day to managers for every immediately reportable matter and all notable routine reportable matters in order to assist in their decisions whether to initiate investigations.

We have further developed our capability to analyse our statistical information and to identify worrying trends. We are now sharing these new insights with important stakeholders in the industry in quarterly bulletins.

Finally, while our investigators have proven themselves capable of unravelling the most complex of events (and machinery), we know that the greatest insight in the world is worthless if it is not applied. Our mission is not only to investigate safety, but to share what we have learned with the transport community. In the past year, we have worked to advance the ways in which we disseminate our message. A focus on strategic communications has helped us to improve the clarity of our investigation reports so that they can be better understood by readers without technical knowledge.

Users of smartphones and other mobile devices are now able to view our website easily, thanks to the application of advanced web technology and our use of social media.

Aviation

The aviation investigation teams completed 43 complex and 99 short aviation accident and incident investigations during the past year. Several of these garnered considerable national and international interest. Key accomplishments included the completion of one of the largest and most complex investigations in our organisation's history, the uncontained engine failure on a Qantas A380 over Batam Island, Indonesia, which occurred on 4 November 2010 (AO-2010-089); pursuing the issue of potentially dangerous fuel tanks in Robinson R44 helicopters; and spelling out the implications of the fatal accident involving an air ambulance rescue operation in the Budderoo National Park near Wollongong, NSW.

The completion of the Qantas A380 investigation is a matter of particular satisfaction. After the initial discovery of the fatigue-cracked oil feed stub pipe that led to the engine failure, we continued to work with the engine manufacturer, Rolls-Royce, to confirm how the manufacturing fault had occurred and how to revise their procedures to prevent recurrence. We also worked with Airbus and international regulators to highlight the implications of the accident for airframe certification standards. Our report, released on 29 June 2013, was the culmination of two and a half years of hard work and cooperation with other agencies, and spelled out issues with significant implications for air safety around the world.

The past year also saw the resolution of a different safety issue, one that tragically claimed several lives. We investigated three accidents in Australia involving post-accident fires in R44 helicopters. This led us to reinforce previous warnings to operators about the need to replace rigid aluminium fuel tanks by the deadline of 30 April 2013. As a consequence, the Civil Aviation Safety Authority (CASA) issued an Airworthiness Directive that effectively grounded any remaining R44s that had not complied by the deadline.

Another significant accident involved an air ambulance helicopter, where paramedics were winched from the aircraft to rescue an injured canyoner. During the winching, a paramedic and the canyoner fell on to some rocks and the paramedic was fatally injured. Following the investigation, the Ambulance Service of New South Wales and the helicopter operator took safety action in respect of the operating scope applied to retrieval operations and procedures used by helicopter emergency crews. In addition, paramedics, in their role as ambulance rescue crewmen, are now required to conduct annual night winching currency training.

The release of our investigation report into the ditching of the Westwind Jet at Norfolk Island that occurred on 18 November 2009 (AO-2009-072) became a subject of the ABC's *4 Corners* program and was commented upon by other media outlets. A review of the investigation by a Senate Committee was launched late in 2012. The ATSB was required to make a number of detailed submissions, provide a great many documents and attend a number of hearings at Parliament House. The enquiry report was released on 23 May 2013. The Commission has carefully considered the report and has developed an action plan in response to matters raised in the report. The Australian Government is considering its response to the Committee.

Marine

The Marine Investigation team completed 11 investigations during the year, two of which were particularly significant for safe work in and around ships. The first concerned the grounding of the general cargo ship *Tycoon* at Flying Fish Cove on Christmas Island (MO-2012-001). Our findings on that accident have delivered important safety messages to the managers of the port. Following this incident, the port operator commenced a program of inspections, replaced important equipment and developed a handbook and safety training.

The second accident reinforced the ATSB's ongoing concern about the safety of stevedores and crew members on board cargo ships, an issue tragically exemplified by the death of a stevedore who was crushed by aluminium ingots on board *Weaver Arrow* (MO-2012-010). The accident has resulted in safety actions intended to address the handling of such cargo as well as the issue of stevedore fatigue.

We also issued a highly significant report which made important recommendations about the safety of coastal pilotage in Queensland coastal waters (M1-2010-011). This is particularly topical as Australia sees the development of port facilities and the increasing transit of shipping carrying coal and gas along these sensitive regions, including the Great Barrier Reef.

Rail

From 20 January 2013, the ATSB assumed primary responsibility for rail investigations across Australia, as part of the new national system for rail safety. This expanded national role in rail transport safety reflects the progressive implementation of the August 2011 Intergovernmental Agreement on Rail Safety Regulation and Investigation Reform. As the national system is implemented in each State, the ATSB is assuming its expanded role there as the rail safety investigator. Since January, we have worked collaboratively with our state and territory colleagues to ensure adequate resources are or will be available to respond quickly and efficiently to safety events as they occur. The Rail Investigation Team completed six complex and three short investigations during the year.

Safety priorities

Last year, for the first time, the Commission identified eight safety priorities for the coming year. These represent major risk areas that need ongoing and heightened attention from the Australian transport community:

- **General aviation pilots**—General aviation (GA) pilots continue to die in accidents that are mostly avoidable. Prominent among these accidents are those that involve low flying, wirestrikes, flying visually into bad weather, mismanagement of partial power loss and poor fuel management.
- **Handling approach to land**—There are a worrying number of cases where stability is not adequately assessed or uncommon manoeuvres are mishandled during an aircraft's approach to land.

- **Data input errors**—Human error involving incorrect data entry continues to cause concern. In some cases, aircraft systems and operators' flight management procedures are not catching these errors.
- **Safety around non-towered aerodromes**—Non-towered aerodromes continue to pose a risk to aircraft due to poor communication between pilots, ineffective use of see-and-avoid techniques and failure to follow common traffic advisory frequency (CTAF) and other procedures.
- **Robinson R44 fuel tanks**—A significant number of R44 helicopters were not fitted with bladder-type fuel tanks and other modifications detailed in manufacturer's documentation that are designed to provide for improved resistance to post-impact fuel leaks and enhanced survivability prospects in the event of an accident.
- **Under-reporting of occurrences**—An ATSB investigation during 2011–12 into under-reporting of wirestrikes revealed approximately 40 per cent under-reporting of incidents and accidents. While there are a range of factors that could influence under-reporting of this particular occurrence type, it is likely that there is under-reporting of other occurrences, particularly those associated with GA operations.
- **Safe work on rail**—The ATSB has investigated several accidents that have occurred when maintenance work was being carried out on or near railway tracks. Conducting work on or near a railway track can be dangerous if safe working rules and procedures have not been correctly implemented to protect the worksite.
- **Marine work practices**—The ATSB has investigated several incidents involving unsafe working practices in the maritime industry. These incidents resulted in serious injury of death following falls from heights, crush, and equipment that exploded.

Upon release of our report (MI-2010-011) into Queensland coastal pilotage in October 2012, we added this as a further risk area. In order to publicise our concerns, and educate stakeholders about what they can do to improve their own safety, we developed a communications initiative, *SafetyWatch*. *SafetyWatch* is featured on the ATSB website and forms the focus for our industry and stakeholder engagement.

Outlook for 2013–14

Last year I commented that, with 56 larger aviation investigations on hand at the end of the financial year, we had reached what I judged to be a sustainable level of activity that was allowing us to meet our targets for timely investigations while maintaining the high quality of our work. We conclude this year with 65 larger aviation investigations on hand. This higher number reflects the level of resources we had to apply to our more complex investigations and some unplanned activities such as the Senate Inquiry. It also reflects that we are not fully meeting our performance standards for delivering investigations in a timely fashion. As we report elsewhere, more work needs to be done to improve the timeliness of our investigation reporting.

Like most government agencies, we are subject to the resource constraints imposed by the government's efficiency and savings initiatives. This, combined with our work on the implementation of the National Rail Reforms and the new responsibilities they have brought, resulted in a year in which heavy commitments meant that we had to divert resources from other investigations with consequent delays.

The ATSB has never been resourced to undertake investigations into every accident or incident that occurs. Rather, it is necessary for us to be strategic, investigating those accidents and incidents that are likely to yield safety improvements for transport operators and the travelling public.

We can expect to continue to work in a resource-constrained environment during the foreseeable future and will need to be creative in finding ways to deliver the high quality expected by the government and the Australian public. Our responsibilities have grown in the rail sector and we are also acutely conscious of the effect on our available resources of the demands of one or more complex investigations.

More than ever we will need to be selective in deciding what matters to investigate in order to achieve the greatest value and confidence for the travelling public. Under current and forecast resource limits, a time is approaching when we will have to be more constrained as to which investigations and activities we can undertake and as to the extent of those investigations we do undertake. While we will continue to take all possible steps to mitigate it, the risk that we will miss an important issue increases as our resources diminish.

We continue to remain alert and prepared to handle a major accident in aviation, marine or rail and recognise the exceptional effort that would be required to respond. To ensure that we remain alert and responsive, our staff members continue to participate in planning and exercises and we continue to learn from our overseas counterparts.

We also continue to work with our neighbours in the region and to be an active and constructive player in the International Civil Aviation Organization, the International Maritime Organization and other international forums that have a role in transport safety. I am pleased that we have been able to assist our neighbours in the region during the year, using development cooperation funding from AusAID.

While the times are challenging, I remain enormously proud of the dedication and the accomplishments of our investigators and other staff. The technical knowledge and expertise within the ATSB is world-class. I thank the investigation and supporting staff of the ATSB whose efforts and expertise consistently enable us to provide an essential service to the Australian travelling public.

Martin Dolan
Chief Commissioner/CEO

Section 2

Agency overview

The Australian Transport Safety Bureau (ATSB) is established under the *Transport Safety Investigation Act 2003* (TSI Act) as Australia's national transport safety investigation agency and is required to operate on a 'no blame' basis. The ATSB is part of the Infrastructure and Transport Portfolio, which includes the following agencies:

- Department of Infrastructure and Transport
- Australian Maritime Safety Authority
- Australian Transport Safety Bureau
- Civil Aviation Safety Authority
- Airservices Australia
- National Transport Commission.

The department provides policy advice and administers programs in infrastructure and transport. The Civil Aviation Safety Authority, Airservices Australia, the Australian Maritime Safety Authority and the National Transport Commission are responsible for the regulation and operation of aviation, marine, road, rail and intermodal transport respectively.

The ATSB is the independent safety investigator responsible for investigation of transport accidents and other safety occurrences in aviation, marine and rail, safety data recording, analysis and research and fostering safety awareness, knowledge and action.

Together, these agencies create a system of safety for transport participants and the travelling public as follows:

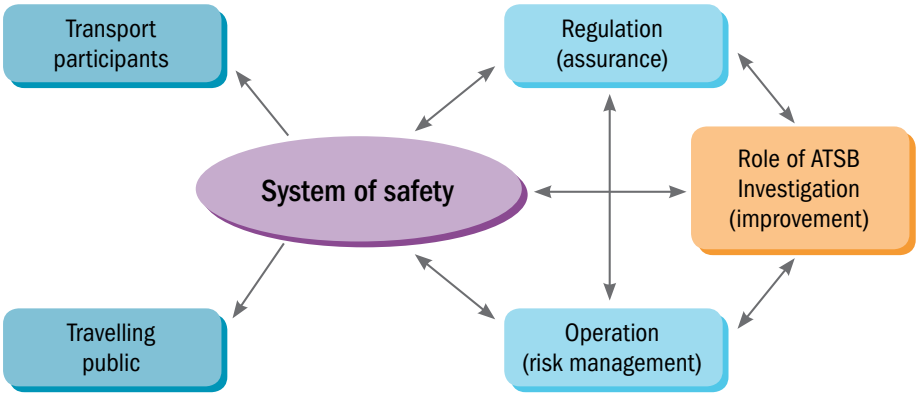


Diagram showing Australia's system of safety and ATSB's contribution

This annual report covers the performance, accountability and financial reporting of the ATSB. The ATSB is a prescribed agency under the *Financial Management and Accountability (FMA) Act 1997* and reports to the Minister for Infrastructure and Transport.

Our role

The ATSB's primary role is to improve aviation, marine and rail safety. Our focus is on improved safety for those who work or participate in the various transport industries and for the travelling public. We do this by:

- 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
- conducting research into transport statistics and technical issues
- identifying factors that contributed to accidents and other safety occurrences that affect or have the potential to affect transport safety
- encouraging safety action in response to safety factors by acknowledging safety action taken by operators and by issuing safety recommendations and advisory notices
- raising awareness of safety issues by reporting publicly on investigations and conducting educational programs.

Our objectives

In fulfilling our role of improving transport safety and cooperating with others, the ATSB:

- focuses its resources in the areas that are most likely to result in safety improvements
- harnesses the expertise and information necessary to its safety role
- conducts impartial, systemic and timely investigations
- identifies safety issues clearly and objectively without attributing blame or liability
- ensures the significance of safety issues is clearly understood by all concerned
- promotes effective safety action.

Cooperation

The ATSB works cooperatively with the aviation, marine and rail industries as well as with transport regulators and governments at state, national and international level to improve safety standards for all Australians, particularly those travelling within Australia and overseas.

The ATSB's success in its role of improving safety is founded upon its ability to build trust and cooperation with the transport industry and the community. The TSI Act requires the ATSB to cooperate with government agencies, private organisations and individuals who have transport safety functions and responsibilities or who may be affected by our transport safety activities. The ATSB also cooperates with equivalent national bodies in other countries and international organisations with responsibility for worldwide transport standards.

The ATSB actively engages in consultation and targets communications to ensure that transport industry stakeholders understand the importance of 'no blame' investigations. The ATSB promotes an appropriate level of confidentiality and protection for sensitive safety information provided to us in order to create a reporting culture within the transport industry.

Notifications and reporting function

The *Transport Safety Investigation Act 2003* requires any 'responsible person' who has knowledge of any accident (or any immediately reportable matter) to report it as soon as is reasonably practicable.

While the terms of this requirement may seem broad, the Transport Safety Investigation Regulations 2003 provides a list of persons who, by the nature of their qualifications, experience or professional association with a particular transport vehicle, or number of transport vehicles, would be likely to have knowledge of an immediately or routine reportable matter for their associated mode of transport, should one occur. These are the individuals who, as a 'responsible person', are required to report a transport safety matter.

There are a number of bodies to which notifications can be made, but the bulk of the notifications are required to be made directly to the ATSB, specifically in aviation. The ATSB maintains a 24-hour service to receive these notifications, including a toll-free telephone number and a secure online notification form. Those notifications submitted to other agencies are forwarded to the ATSB, where they are recorded and evaluated as to whether an investigation will be undertaken.

Every year, the ATSB receives over 15,000 notifications of safety occurrences, spread across the three modes of transport. Inevitably, there are duplicate notifications, and many of the notifications submitted do not, under the TSI Act, need to be reported. Nevertheless, each one is reviewed and recorded.

In 2012–13, the ATSB's Notifications and Reporting team received 15,414 notifications in the form of telephone calls, emails, facsimiles, postal letters and web notifications. From those, the section identified 8,509 individual accidents, serious incidents and incidents.

While not all reported occurrences are investigated, the details of each occurrence are retained within the ATSB's records database. These records constitute a valuable resource, providing a detailed portrait of transport safety in Australia. Among the many uses of the database, the ATSB uses it to identify trends and patterns, as does industry and regulators, while a variety of researchers, including scholars and the media, use it to research past events.

Aviation function

The ATSB investigates accidents and other occurrences involving civil aircraft in Australia. The ATSB also analyses data on accidents and incidents notified to it and conducts research into specific matters of concern that emerge from data analysis, specific incidents or which may be referred by other organisations. It does so in a manner consistent with the Convention on International Civil Aviation (Chicago Convention 1944) *Aircraft Accident and Incident Investigation* (Annex 13). The ATSB may also investigate serious incidents or accidents involving Australian-registered aircraft overseas, or assist with overseas investigations involving Australian–registered or foreign aircraft if an overseas investigating authority seeks assistance and the ATSB has available suitable resources. The ATSB may also have observer status at important overseas investigations and this provides valuable opportunities to learn from overseas organisations and benchmark our knowledge and procedures against our sister organisations overseas.

The ATSB cooperates with organisations such as CASA, Airservices Australia and aircraft manufacturers and operators who are best placed to improve safety.

Marine function

The ATSB Marine Investigation Team investigates incidents and accidents 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 maritime regulator, the Australian Maritime Safety Authority (AMSA), the state and territory maritime regulatory authorities, other transport safety investigatory agencies, ship owners and operators.

The ATSB publishes a range of marine transport safety reports and safety educational material which are distributed to the international maritime community, the International Maritime Organization, educational institutions and maritime administrations in Australia and overseas.

Rail function

Following the implementation of the national transport reform process in January 2013, the ATSB has primary responsibility for investigating rail safety occurrences (accidents and incidents) that occur on the Defined Interstate Rail Network, regional rail networks and on metropolitan passenger networks in participating states and territories—New South Wales, Victoria, South Australia, Tasmania and the Northern Territory. ATSB will assume responsibility in the other states as they sign on to the reforms (expected in late 2013 or 2014).

The ATSB works cooperatively with organisations such as the Office of the National Rail Safety Regulator, state and territory rail regulators, the Australian Rail Track Corporation (ARTC) and rail operators who are best placed to improve safety. ATSB also has collaboration agreements with the NSW and Victorian State Safety investigation organisations.

Technical analysis function

The ATSB Technical Analysis team provides the ATSB with the capability to examine, in detail, the physical and recorded evidence associated with safety occurrences from all modes of transport. Specialists in the investigation of materials and systems failures and the recovery and analysis of recorded data from 'black boxes' and other electronic evidence collaborate with ATSB investigation team members and external parties to provide in-depth insight into the technical issues surrounding transport safety occurrences.

Short investigations function

In addition to the detailed investigations, the ATSB undertakes short, factual, office-based investigations of some less complex safety occurrences. The capacity to undertake a larger volume of these short investigations provides excellent opportunities to deliver safety messages and for industry participants to learn from the experiences of others. Although many of these investigations examine occurrences that are common and for which the underlying factors are well known, these investigations serve to enhance the quality of the data held by the ATSB and act as a safety net to identify situations where the need for detailed investigation may be warranted.

A small team manages and processes these factual investigations and produces short summary reports. The summary report is a compilation of the information that the ATSB has gathered or 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. These summary reports are generally released to the public periodically in a bulletin format.

Confidential reporting function (REPCON)

REPCON is a voluntary confidential reporting scheme established under the Transport Safety Investigation (Voluntary and Confidential Reporting Scheme) Regulations 2012. From January 2013, this scheme expanded to service the rail industry as well as aviation and marine.

REPCON allows any person, including from the general public, who has an aviation, marine or rail reportable safety concern (RSC) to report it to the ATSB confidentially. Protection of the reporter's identity and any individual referred to in a report is a primary element of the scheme. The scheme also allows operators and regulatory bodies to comment and advise on any proposed action to be taken in respect of an RSC.

Examples of RSCs include:

- poor training
- insufficient qualifications or endorsements for specific tasking
- fatigue as a result of poor scheduling or rostering
- disregard for regulations, standard operating procedures or policy in regard to transport operations
- unsafe practices in regard to passenger or freight operations.

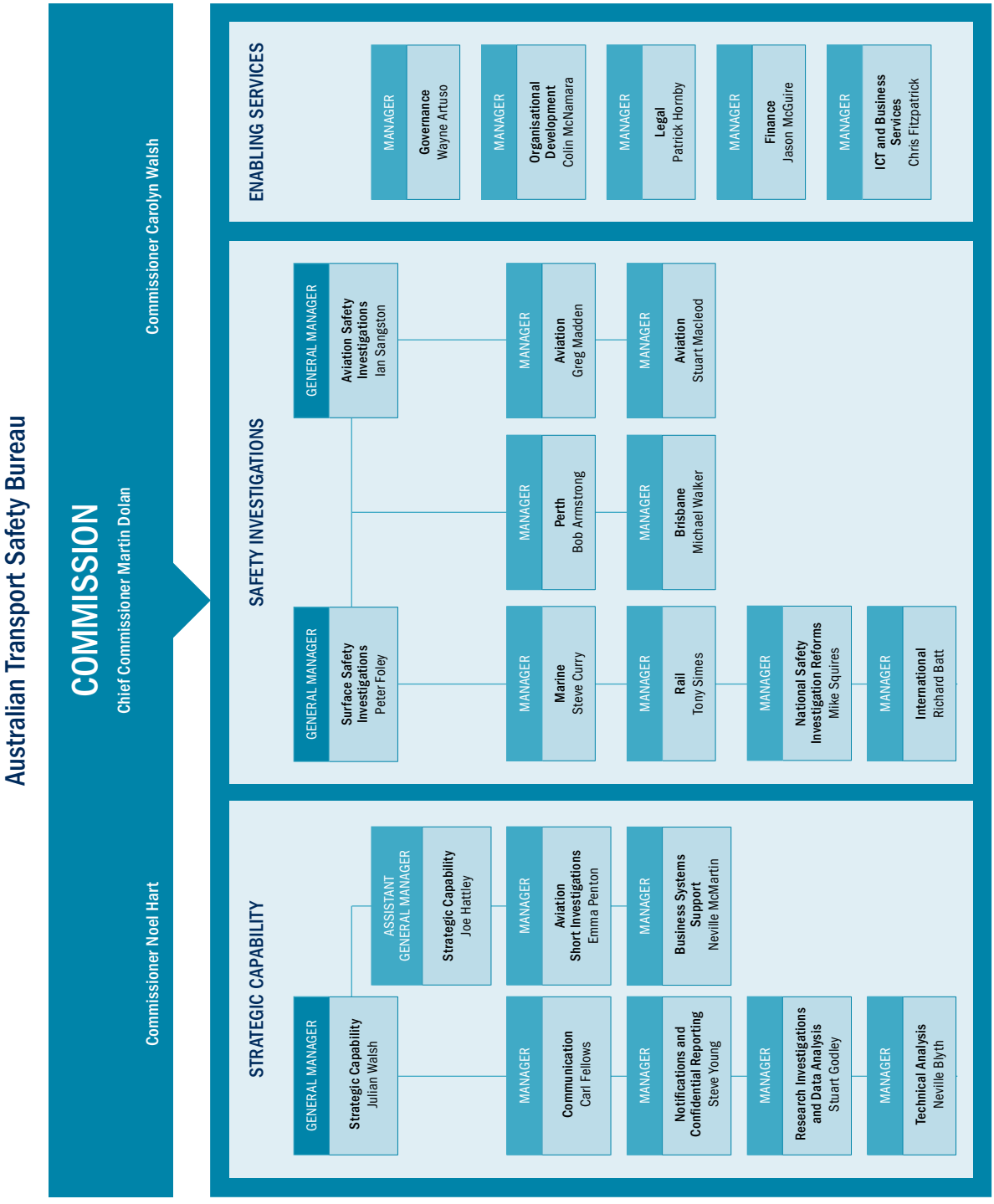
An RSC does not include matters relating to:

- a serious and imminent threat to a person's health or life
- acts of unlawful interference
- industrial relations issues
- a reportable matter under the mandatory reporting regulations.

Research investigations & data analysis function

The Research Investigations & Data Analysis team conducts a program of research to examine aviation safety issues and produce high-quality research reports to promote safety within the aviation industry. The research program aims to fulfil Australia's obligations under International Civil Aviation Organization (ICAO) requirements, to analyse information in the ATSB's aviation safety accident and incident database to determine if preventative safety measures are needed. In order to do this, the team also undertakes a routine and systemic analysis of report occurrence data, observing the health of aviation across the country. The ATSB is not funded for rail or marine research.

Our organisation structure as at 30 June 2013



Executive management

Martin Dolan

CHIEF COMMISSIONER

Martin Dolan has been Chief Commissioner of the ATSB since July 2009. His five-year appointment runs until June 2014. Mr Dolan has worked in the Australian Public Service for over 30 years, acquiring broad expertise in aviation and safety matters and carrying out a range of senior executive roles. Mr Dolan has a Bachelor of Arts degree.

Noel Hart

COMMISSIONER

Noel Hart has over 40 years' experience in the shipping industry, including 13 years at sea in senior deck officer positions. His qualifications include a Master Mariner Class One qualification and business administration and MBA certificates.

Mr Hart left his seagoing career to join BP Australia in 1985 and held management positions with BP Shipping in Melbourne, London and Chicago. From 2006 to 2009 he held the position of General Manager of the North West Shelf Shipping Service Company, based in Perth. In this position he was responsible for the safe shipping of liquefied natural gas from north-western Australia to Asian and other global customers.

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

In November 2008, Mr Hart was elected as Chairman of the Australian Shipowners Association, a position he still holds, and in July 2009 was appointed as a Commissioner of the ATSB. Mr Hart was reappointed to the ATSB for a further three years in May 2012.

Carolyn Walsh

COMMISSIONER

Carolyn Walsh has over 25 years' experience in policy development, regulation and safety management at both Commonwealth and state levels. She has over ten years' experience in the transport sector, in both policy and regulatory roles. Before becoming a Commissioner of the ATSB, Ms Walsh was the Chief Executive of the NSW Independent Transport Safety and Reliability Regulator.

Ms Walsh is currently President of Palliative Care NSW and a member of a number of Audit and Risk Committees for NSW government agencies including: the Aboriginal Lands Council (Chair), Mental Health Commission (Chair), Information and Privacy Commission (Chair), Police Integrity Commission (member) and Office of the Director of Public Prosecutions (member).

Ms Walsh has specialist expertise in safety (both transport and occupational health and 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.

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

Peter Foley

GENERAL MANAGER, SURFACE SAFETY INVESTIGATION

Peter Foley has held the position of General Manager Surface Safety Investigation since August 2006. He is responsible for marine and rail safety investigations, the ATSB's work on the reforms to the National Transport Regulatory framework, and the ATSB's international programs.

Mr Foley joined the ATSB in 1999 after a career at sea as a marine engineer with Australian shipping companies, including ANL Ltd, 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 had a close involvement in many rail investigations. He has represented the ATSB and Australia at many 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.

Ian Sangston

GENERAL MANAGER, AVIATION SAFETY INVESTIGATION

Ian Sangston, General Manager, Aviation Investigation joined 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 has an undergraduate degree and two master's degrees in Management Studies and Employment Relations.

Mr Sangston managed a number of high profile and other investigations as an STSI and completed a 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. Mr Sangston was promoted to his present position in August 2009 and has been instrumental in the ATSB's development of a project management approach to investigation management.

Julian Walsh

GENERAL MANAGER, STRATEGIC CAPABILITY

Julian Walsh, General Manager, Strategic Capability, joined the ATSB as a Senior Transport Safety Investigator (STSI) in September 1998 after nearly 21 year's service as an officer in the Royal Australian Air Force.

In the Air Force, Mr Walsh gained extensive experience both as an 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 within the Department of 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 the Notifications and Technical Analysis Team and as an Aviation Investigation Team Leader. He was Director, Aviation Safety Investigation, from March 2006 to June 2009.

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

Outcome and program structure

PROGRAM 1.1 OBJECTIVE

The Australian Transport Safety Bureau will work actively with the aviation, marine and rail industries, 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. There are three core functions which arise from the ATSB's functions under the *Transport Safety Investigation Act 2003*.

1 Independent 'no blame' investigations 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.

2 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.

3 Fostering safety awareness, knowledge and action

Awareness and understanding of transport safety issues is increased through a range of activities including consultation, education, and 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.

How the ATSB reports

Section 63A of the *Transport Safety Investigation Act 2003* (TSI Act) requires that the ATSB must, as soon as practicable after 30 June in each financial year, report to the Minister on the ATSB's activities during the year. This reporting must include:

- prescribed particulars of safety matters (no matters are currently prescribed)
- a description of investigations conducted by the ATSB during the financial year that the Chief Commissioner considers raise significant issues about safety
- financial statements required by section 49 of the *Financial Management and Accountability Act 1997* (FMA Act)
- an audit report on those statements under section 57 of the FMA Act.

In addition, the ATSB observes and complies with the *Requirements for Annual Reports for Departments, Executive Agencies and FMA Act Bodies* published by the Department of the Prime Minister and Cabinet. This report is based on the guidelines for 2012–13 issued on 24 June 2013.

The ATSB will report its performance against the program objectives, deliverables and key performance indicators published in the Infrastructure and Transport 2012–13 Portfolio Budget Statements.

WHAT ARE OUR PRIORITIES FOR INVESTIGATION?

The ATSB's highest priority is to investigate accidents and safety occurrences that have the greatest potential to deliver improved transport safety for the travelling public.

The ATSB is not resourced to investigate every single accident or incident that is reported, but allocates priorities within the transport modes to ensure that investigation effort achieves the best outcomes for safety improvement. The ATSB recognises that there is often more to be learned from serious incidents and patterns of incidents and places some focus on these investigations as well as on specific accident investigations.

Where the contributing factors and safety issues for common occurrences are well known and there are likely to be few benefits from conducting extensive investigations, the ATSB may conduct limited fact-gathering investigations (Short Investigations).

THREE WAYS TO ACTION

The TSI Act requires specified people and organisations to report to the ATSB on a range of safety occurrences (called 'reportable matters'). Reportable matters are defined in the Transport Safety Investigation Regulations 2003. 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. Investigations 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 trends.
3. Basic details of an occurrence, based primarily on the details provided in the initial occurrence notification, can be reported in the database to be used in future safety analysis to identify safety issues or trends.

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

AVIATION BROAD HIERARCHY

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 work (for example, agriculture, cargo)
- private transport or personal business

7 High risk personal recreation/sports aviation/experimental aircraft operations.

On 20 March 2013, the Commissioners decided that in future the ATSB will investigate all fatal accidents involving VH-registered powered aircraft.

MARINE BROAD HIERARCHY

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

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 (expressed in no particular order) may vary in the degree to which they influence the ATSB's decision to investigate, and the response. Factors include the:

- 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 or other infrastructure
- obligations or recommendations under international conventions 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
- extent of resources available and projected to be available in the event of conflicting priorities
- 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, allocate 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.

THE INVESTIGATION LEVELS

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

The following safety investigation levels are used by the ATSB:

Major Investigation
Investigations are likely to involve, at times, significant ATSB resources in addition to significant external resources, for up to 24 months, and are likely to require additional one-off government funding.

Level 1
Investigations are likely to involve a large number of ATSB resources and possible external resources, and are of a scale and complexity that usually requires up to 18 months to complete.

Level 2
Investigations involve in-the-field activity, several ATSB and possibly external resources and of a scale and complexity that usually requires up to 12 months to complete.

Level 3
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 4
Investigations are less complex and require no more than five months to complete (in some cases, after initial in-the-field or other investigation activity, the investigation level may be changed or the investigation discontinued if it is determined that there is no safety value to be gained from continuing the investigation. They generally involve only one or two ATSB staff.

Level 5
Short investigations are limited-scope factual information only investigations which result in a short summary report of one to two pages. These are generally completed within six weeks and are usually published in a monthly bulletin. They require only one ATSB staff member.

For the purpose of reporting against the 2012–13 Portfolio Budget Statements performance measures, the ATSB regards complex investigations as Levels 1–4 and less complex as Level 5.

Section 3

Report on performance

This section provides a review of performance in relation to the deliverables and key performance indicators of the ATSB program as set out in the 2012–13 Portfolio Budget Statements and the agency's effectiveness in achieving planned outcomes.

Key results

Table 1 summarises the ATSB's performance against the key performance indicators set out for Program 1.1 in 2012–13. The ATSB changed the targets in some of its deliverables in its 2012–13 Portfolio Budget Statements to add a timeliness dimension rather than only focus on throughput. The following table describes performance against both the new and old targets.

KEY PERFORMANCE INDICATOR	PREVIOUS TARGET	NEW TARGET	RESULT
Safety action is taken by stakeholders to address identified safety issues.[1]	Critical safety issues 100% Significant safety issues 70%	Critical safety issues 100% Significant safety issues 70%	No critical safety issues were released in 2012–13 71%
Stakeholder awareness of safety issues is raised as a result of investigation, research and analysis findings and through safety education activities (as measured through a biennial survey scored on a 7-point rating scale).	5 or higher	5 or higher (survey methodology for 2013 did not use a 7-point scale).	The ATSB has significantly increased awareness of safety issues over the past two years. Since 2011, almost double the percentage of respondents agreed that the ATSB's investigations, research and analysis findings and safety education activities have increased awareness of transport safety issues (35 per cent in 2011 to 64 per cent in 2013).
Stakeholders are satisfied with the ATSB's performance (as measured through a biennial survey; scored on a 7-point rating scale.	5 or higher	Indicator discontinued	

1 The ATSB defines critical safety issues as those that identify an intolerable level of safety risk.

KEY PERFORMANCE INDICATOR	PREVIOUS TARGET	NEW TARGET	RESULT
Investigation reports are published in a timely manner.	More complex investigations published within 12 months. Short investigations published within two months.		See results below for 'we will complete and publish safety investigations'.

PROGRAM DELIVERABLES	PREVIOUS TARGET	NEW TARGET	RESULT
We will assess, classify and publish summaries of accident and incident occurrences that we receive.	12,500 incident notifications 120 confidential reports	Details of occurrences being investigated are published within one business day. Summaries of other occurrences are published within five working days of receipt.	15,580 incident notifications 141 confidential reports (130 Aviation, 9 Rail and 2 Marine)
We will assess confidential reports for clarity, completeness and significance for transport safety and, where appropriate, advise any responsible party in a position to take safety action in response to the safety concern.		A de-identified summary of the confidential report will be provided to any relevant third party within five working days. Within two months, advise a responsible party in a position to take safety action in response to the safety concern.	72% of REPCONs were processed to completion in accordance with promulgated guidelines. The speed of the response from the remainder was affected by the parties concerned, the complexity of the safety concern and the resultant feedback from the report originator.
We will complete and publish safety investigations.	Complex investigations: 35 (365 days) Less complex investigations: 90 (200 days)	More complex investigations: up to 60 per annum (p.a.) Short investigations: up to 120 p.a.	60 investigations 20 completed within 365 days (median = 458 days 102 investigations 27 completed within two months (median = 84 days)
We will complete and publish research and analysis reports based on safety priorities and trends.	14 reports Provided to the Minister and safety agencies quarterly.	Up to 14 reports published as part of an annual research program. Reports on aviation safety trends.	7 research reports published. 4 aviation quarterly trend reports sent to industry.
We will ensure we are prepared for a major accident by reviewing and testing our major accident response and management capabilities.	Annually	Participating in one major exercise p.a.	In February 2013, the ATSB participated in a two day Airline Emergency Planning workshop in Adelaide.

PROGRAM DELIVERABLES	PREVIOUS TARGET	NEW TARGET	RESULT
We will assist regional transport safety through participation in the Indonesia Transport Safety Assistance Package (ITSAP) and cooperation with Papua New Guinea consistent with the *Memorandum of Understanding on Cooperation in the Transport Sector.*		Delivery of approved programs within Program funding allocation.	Successful completion of ITSAP and PNG Transport MOU projects.
We will publish and deliver an annual program of safety communication and awareness		Implementation of published program.	Program fully implemented.
We will implement the ATSB's expanded national role in rail transport safety, as part of the Intergovernmental Agreement (IGA) on Rail Regulation and Investigation Reform, agreed in August 2011.		By 1 January 2013, establish collaboration agreements with NSW and Victoria to provide investigation services under the TSI Act. By 1 January 2013, establish charging arrangements with other states and territories for the ATSB to expand rail safety investigations.	The ATSB established a collaboration agreement with NSW and Victoria to provide investigation services under the TSI Act. Charging agreements with other states and territories for the ATSB to expand rail safety investigations are being progressively established.
We will comply with relevant international safety investigation obligations based on the Australian legal and governance framework.	100% compliance, except where Australian Government has notified a variation.		100%
We will publish final investigation reports and make them available on our website.	100%	Indicator discontinued.	All investigation reports are published on the ATSB website.

The following pages provide more detailed reports of performance in the major objectives set out in the Portfolio Budget Statements and our financial performance.

1 Independent 'no blame' investigations of transport accidents and other safety occurrences

Performance

This section describes the ATSB's performance in achieving the deliverables set out for Program 1.1 in 2012–13, as published on page 130 of the Portfolio Budget Statements which relate to the ATSB's role as the independent 'no blame' investigator.

Deliverables

- We will assess, classify and publish summaries of accident and incident occurrences that we receive.
- We will assess confidential reports for clarity, completeness and significance for transport safety and, where appropriate, advise any responsible party in a position to take safety action in response to the safety concern.
- We will complete and publish safety investigations.
- We will ensure that we are prepared for a major accident by reviewing and testing our major accident response and management capabilities.
- We will implement the ATSB's expanded national role in rail transport safety, as part of the Intergovernmental Agreement (IGA) on Rail Regulation and Investigation Reform, agreed in August 2011.

Aviation investigations

In 2012–13, the ATSB initiated 57 complex safety investigations from approximately 15,414 accident and incident notifications received (notifications were classified as 8,430 aviation occurrences). Of those, four investigations were downgraded and continued as Short Investigations.

Forty-three complex investigations were completed during the period (comprised of 29 occurrence investigations, two safety issue investigations, and 12 external investigations). Six of the 43 investigations were completed within 12 months.

At 30 June 2013, the aviation investigation team was continuing to investigate 65 complex aviation occurrences.

Marine investigations

In 2012–13, the ATSB initiated seven complex marine transport safety investigations from a total of 122 accident and incident occurrences. Eleven complex investigations were completed in this time period (eight occurrence investigations, one safety issue investigation, and two external investigations), three of which were completed within 12 months.

At 30 June 2013, the marine investigation team was continuing to investigate five marine occurrences.

Rail investigations

In 2012–13, the ATSB initiated 18 complex rail safety investigations. Between June 2012 and 19 January 2013, there were 28 rail occurrences reported to the ATSB on the DIRN under the TSI Act. From 20 January to 30 June 2013, there were 162 Category A occurrences reported to the ATSB from all rail operations across Australia excluding Queensland, Victoria, and West Australia.

The ATSB completed six complex rail investigations in 2012–13. One of the six investigations was completed within 12 months.

As of 30 June 2013, the ATSB was continuing to investigate 19 complex rail safety occurrences, one complex safety issue, and was involved in one complex external investigation.

Short investigations

In 2012–13, the ATSB initiated 102 short investigations, 99 in aviation (including four downgraded complex investigations), none in marine, and three in rail.

During the financial year, 99 aviation short occurrence investigations were completed (27 within two months), and three rail short occurrence investigations were completed (none in two months).

Reporting

The ATSB's target for assessing, classifying and publishing summaries of accident and incident occurrences is one day for occurrences being investigated and five days for summaries of other incidents to be published. We are meeting the target for publishing summaries of accidents under investigation within one day, however there was a backlog of other occurrences of approximately 300, occurrences as at 30 June 2013, which roughly equates to five business days of occurrences. This shortfall was due to staffing issues.

Confidential Reporting

In 2012–13 the ATSB Confidential Reporting Scheme (REPCON) received 141 reports, 130 concerning aviation, nine concerning rail, and two concerning marine.

The following are some examples of safety concerns that have been raised and the safety action that has been achieved after reporting safety concerns through REPCON:

- A reporter expressed a safety concern regarding international flights that had been authorised after the flights had been declared non-extended range capable when the weather at the alternate aerodromes was below the alternate minima. As a result of this report, the operator has reinforced to their managers that they are responsible for risk management and that this needs to be incorporated into all decision making. The regulator has acknowledged that the regulations did not adequately address the matter of weather conditions at alternate aerodromes for non-extended diversion time operation (EDTO) flights.

- A reporter expressed a safety concern regarding an international airline using two different weight recording methods when completing flight plans. As a result of the report, the operator immediately changed the system used to ensure that all weights were recorded in the same method.
- The reporter expressed a safety concern regarding the lack of understanding within the operator's maintenance section of the extended twin operations (ETOPS) requirements. As a result of this report, the operator moved the ETOPS Manual to a more prominent area on its internal web based maintenance procedure system. It also revised its ETOPS training curriculum and issued a safety bulletin to its employees highlighting key ETOPS maintenance requirements.
- The reporter expressed a safety concern regarding the lateness of receipt of the revision service for aviation charts. As a result of the report, the provider completely overhauled its delivery service within Australia.
- The reporter expressed a safety concern regarding the lack of standardisation for helicopters landing outside the controlled movement areas at Bankstown airport. As a result of the report, the En-route Supplement Australia (ERSA) was amended to include an existing second helicopter landing site (HLS) on the aerodrome. It was also acknowledged that controllers may not be aware of traffic in an area near that HLS and noted that there was a lack of guidance provided within the AIP regarding the requirement to obtain a clearance to cross the HLS.
- The reporter expressed a safety concern about the ambiguity that lies within the rules surrounding the turn onto any missed approach with the wording "Track XXX" and the missed approach point is defined by a radio aid. The concern is then, should a pilot turn the aircraft so as to make good a track of XXX, or should the pilot intercept the radial XXX outbound from the missed approach point. The rules do not specify one way or the other. As a result of this report, it was realised that there was uncertainty within the aviation industry regarding how to apply these procedures and CASA requested a change to AIP to clarify the issues.
- The reporter expressed a safety concern regarding the response from the operator to the safety issues that had been identified during an ASTB investigation. The reporter stated that a number of procedures had not been changed, as was stated in its response to the investigation, including the role of the train driver, the supervisor driver, the rostering and training structure. As a result of this report, the regulator conducted an audit of the organisation and found a number of the claims were valid. The organisation had taken steps to change its training organisation and improve its procedures. The regulator will closely monitor the operator to ensure that any non-conformance issues are resolved.

Technical Analysis

Technical Analysis staff members were engaged across a wide variety of investigations in 2012–13, providing broad-ranging analysis and direct specialist evidence examination. Their efforts were particularly significant in the following investigations:

AO-2010-089 Qantas A380 engine failure—finalisation of this high-profile investigation continued to draw upon the forensic materials engineering and flight data analysis capabilities of the team, with the rationalisation of the key issues and the logical, clear summarisation of the technical findings being the focus.

AI-2009-038 Reliability of the Robinson R22 Helicopter belt drive system—Questions around the belt drive system of this widely used light helicopter were the focus of this investigation, which closely examined the history of related safety occurrences, and presented salient advice to pilots and maintainers around maximising the performance and reliability of the belt drive system.

AE-2012-028 Examination of control cable fittings—Aircraft control cables and fittings, mostly hidden from outside view, provide the critical link between pilot and aircraft—physically transmitting commands from the cockpit to the control surfaces. The susceptibility of certain fittings to failure by stress-corrosion cracking has been the focus of a recent collaborative effort by the ATSB and the Civil Aviation Safety Authority, and has resulted in the publication of a number of advisory bulletins and a Notice of Proposed Rule-Making (NPRM) on the mandatory recurrent inspection of susceptible fittings.

Preparedness for a major accident

The ATSB continues to prepare for a major accident, and in February 2013 ATSB staff participated in a two-day Airline Emergency Planning workshop in Adelaide. Plans are underway to hold exercises related to rail and marine incidents to ensure that the ATSB is prepared to respond to accidents and incidents across all the modes.

Implementing the ATSB's expanded role in rail

As Australia's national safety investigator since 20 January 2013, a number of changes have been introduced to implement the COAG transport reform agenda, including:

- changes to investigation legislation, passed by the Commonwealth Parliament on 13 September 2012
- agreement by state and territory governments to a cooperative funding mechanism
- arrangements to work collaboratively with existing state-based investigators in NSW and Victoria
- a new voluntary, confidential reporting scheme for safety concerns beyond those which operators are required to report
- industry awareness of changes to mandatory reporting of rail occurrences to the ATSB.

The ATSB has partnered with NSW and Victorian investigation agencies to share resources to investigate nine rail incidents in those states. Investigations are also continuing in Tasmania and Queensland under agreed charging arrangements.

2 Safety data recording, analysis and research

The ATSB is funded to record data and conduct analysis and research into aviation matters. This section describes the ATSB's performance against the deliverable set out in the Portfolio Budget Statements.

- We will undertake research and analysis investigations based on safety priorities and trends

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

The ATSB completed seven research reports and sent four quarterly trend reports to industry during 2012–13.

In 2012–13, the ATSB continued to analyse occurrence data held in its aviation safety occurrence database as part of Australia's international obligations to determine if preventative safety measures are required. More information about our trend analysis and our initiative to share this research with industry stakeholders can be found in the feature article in section 8.

Research into amateur-built aeroplanes

A most significant research investigation involved the analysis of accidents involving VH-registered amateur-built aeroplanes (AR-2007-043(2)). This found that amateur-built aircraft had an accident rate three times higher than comparable factory-built certified aircraft conducting similar flight operations between 1988 and 2010. The fatal and serious injury accident rate was over five times higher in amateur-built aircraft, in particular due to relatively more serious injury accidents. The pilots of these aircraft involved in accidents were significantly more experienced overall, but significantly less experienced on the aircraft type, than factory-built aircraft accident pilots.

Over half of the accidents were precipitated by mechanical events, which were mainly complete or partial engine failures. Following the amateur-built phase one test period, mechanical failures were still significantly more common when compared with factory-built aircraft. A quarter of accidents were from loss of aircraft control. Structural failures were not common precursors in amateur-built aircraft. The results of this report have led to significant initiatives from the Sport Aircraft Association of Australia to reduce the current accident rates for amateur-built aircraft.

Effectiveness of Emergency Locator Transmitters (ELTs)

Research published in 2012–13 also included review of the effectiveness of emergency locator transmitters (ELTs) in aviation accidents (AR-2012-128). This found that ELTs function as intended in about 40 to 60 per cent of accidents in which their activation was expected. It also found

that while ELT activation accounted for the first notification for search and rescue in only about 15 per cent of incidents, these ELT activations have been directly responsible for saving an average of four lives per year.

Avoidable Accidents

The ATSB continued its aviation *Avoidable Accidents* series with the publication of *Experience won't always save you* (AR-2103-035). These highly regarded booklets use accident case studies to educate pilots about common accidents and how to avoid them. In this booklet, it was concluded that pilot experience does not give a pilot immunity from an accident and that investigations of fatal accidents have shown that some very experienced pilots have allowed their experience to result in them undertaking flying that involved much higher risk than necessary.

Marine occurrence statistics

In 2012–13, the ATSB published the second edition of marine occurrence statistics using data held in the ATSB's marine occurrence database. This database is populated with international and interstate shipping occurrences reported to the ATSB from the Australian Martine Safety Authority (AMSA). The ATSB also compiled statistics about rail occurrences from data supplied by state and territory authorities.

Multi-modal research

Two multi-modal research reports were published in 2012–13. One documented safety issues and resultant safety actions identified through ATSB investigations during the past three financial years. The other was a systematic review of the effectiveness of safety management systems. This found that only a small number of relevant research studies have been published that involved an evaluation of a safety management system designed to avoid low-probability/high-consequence accidents such as in aviation, marine and rail industries. It was concluded that, based on the limited evidence, incorporating safety management systems into normal business operations does appear to reduce accidents and improve safety in high-risk industries. At present, it is unclear as to whether any individual elements of a SMS have a stronger influence on safety over other elements, although management commitment and appropriate safety communications do affect attitudes to safety.

3 Fostering safety awareness, knowledge and action

The ATSB is funded to deliver the following deliverables that relate to its responsibilities for increasing awareness of safety issues and complying with international safety obligations.

- We will publish and deliver an annual program of safety communication and awareness
- We will assist regional transport safety through participation in the Indonesia Transport Safety Assistance (ITSAP) and cooperation with Papua New Guinea consistent with the *Memorandum of Understanding of Cooperation in the Transport Sector.*

Strategic communication

A major part of our role as Australia's national transport safety investigator is to communicate the safety lessons we gain from our investigation findings, research activity and occurrence reports. This information has valuable safety messages that can help improve transport safety and ultimately save lives.

In 2012–13 we continued to highlight, for the benefit of industry and the travelling public, emerging safety issues and trends using a range of communication channels and activities.

SafetyWatch

In 2012–13, the ATSB launched its *SafetyWatch* initiative. *SafetyWatch* highlights the broad safety concerns that come out of our investigation findings and from the occurrence data reported to us by industry. The initiative includes the priority areas where more can be done to improve safety.

These areas include:

- General aviation pilots
- Safe work on rail
- Safety around non-towered aerodromes
- Maritime pilotage
- Data input errors
- Handling approach to land
- Under reporting of occurrences
- R44 helicopter fuel tanks
- Marine work practices.

Throughout the year, the ATSB undertook a range of communication activities (direct mail, web news items, social media and general media) to raise awareness of these issues within the transport industry. Promoting *SafetyWatch* will continue to be a major priority in 2013–14.

Social media

The ATSB continued to embrace social media as a way to better engage the transport industry, media and the travelling public.

In November 2012, the Chief Commissioner launched his blog page, *InFocus*, to discuss the important issues surrounding transport safety. With more than 11 topics published and 50 comments made in response, *InFocus* has provided a good forum for people to share their thoughts and experiences directly with the Chief Commissioner.

The ATSB has also continued to use Twitter as part of an integrated communications approach. Twitter has proven to be particularly effective when we release reports and investigation updates. Through this social media platform, we can provide a short safety message along with a link to more information on our website.

By the end of June 2012–13, the ATSB had around 1400 followers comprising journalists, members of the public and transport industry specialists.

Media

The ATSB undertakes responsive and proactive media activity to ensure the transport industry and general public are kept informed of our investigations and activities. During the year, we worked closely with local, national, state and territory media to raise community awareness of transport safety.

In 2012–13, we issued five media releases highlighting safety advice and updates from our investigations. The media releases covered a range of safety matters including:

- safety concerns with Queensland coastal pilotage
- the dangers of low-level flying and wirestrikes in general aviation
- our investigation into the train accident at Cleveland Station in Queensland
- the risks associated with Robinson R44 helicopter fuel tanks
- our final investigation report into the uncontained engine failure of QF32.

Over the year, the ATSB conducted the following media briefings as part of our investigation process:

- on-site media briefing for the fatal wirestrike involving a Cessna 182A at Burrum Heads, Queensland
- on-site media briefing for the fatal aircraft crash involving a replica Spitfire near Parafield Airport in South Australia
- Chief Commissioner's media briefing to accompany the release of our final investigation report into the uncontained engine failure of a Qantas A380 (QF32)
- on-site media briefing for the fatal crash involving a Cirrus SR22 at Boxwood, Victoria.

The ATSB also regularly contributed articles to key industry publications including:

- *Flight Safety Australia*
- *Australian Flying*
- *Shipping Australia*
- *RAAA News*
- *Airnews.*

Website

The ATSB website (www.atsb.gov.au) remains our primary communication channel.

In 2012–13 we refreshed the look and feel of the website to make it more user-friendly with a greater focus on news and emerging issues. Significantly, the revamped website was made 'mobile friendly'. This means users have much better access to information on the site from their mobile devices such as smartphones and tablets.

During the year, we published more than 100 news items covering a wide range of topics on investigations, reports and trends in transport safety. The latest news items are easily accessible on the homepage of the ATSB website.

We are continually working to improve our website to meet audience needs and to allow for new and emerging technologies. In 2012–13 we increased the site's focus on safety issues and will continue to enhance this feature next year. This will make it easier for users to search for and find a transport safety issue and the corresponding proactive safety action, safety advisory notice or recommendation.

We are also close to completing our online occurrence database, which will allow users to search aviation occurrence statistics from the ATSB website.

E-newsletter

In April, we launched our e-newsletter, *The ATSB Investigator,* to ATSB email subscribers. Released periodically, the newsletter includes stories on our key investigations and reports in one convenient online bulletin. In 2013–14, we will continue to refine the newsletter and include additional feature articles such as investigations from around the world.

People can receive the newsletter by subscribing to our email service via the ATSB website, www.atsb.gov.au

Industry engagement

In 2012–13, the ATSB implemented a comprehensive industry engagement program that aimed to deliver key safety messages to industry stakeholders through a targeted and coordinated approach. The program comprised the industry events in which the ATSB participated, presented at and/or sponsored. In 2012–13, the ATSB took part in more than 50 major events with stakeholders—within Australia and overseas—from the aviation, maritime and rail industries.

Stakeholder research

As part of the ATSB's responsibility to gauge awareness of safety issues and satisfaction among our stakeholders, we conducted independent stakeholder research during May and June. The research comprised a short online survey that was completed by 851 people across the aviation, rail and marine industries.

Overall, the findings show that the ATSB has significantly increased awareness of safety issues over the past two years. Since the last survey in 2011, almost double the percentage of respondents agreed that the ATSB's investigations, research and analysis findings and safety education activities have increased awareness of transport safety issues (35 per cent in 2011 to 64 per cent in 2013).

The findings also reveal areas where the ATSB could make improvements. These predominately included the timeliness of investigation updates and reports.

Regional cooperation

The ATSB continued an active program of regional engagement with other transport safety agencies, over and above that required by international obligations.

Australia's reputation for high quality and rigorous investigations makes it uniquely placed to assist transport safety in the Asia Pacific region. In particular, the ATSB has ongoing involvement in the Australian Government Indonesia Transport Safety Assistance Package (ITSAP) and cooperation with Papua New Guinea (PNG) consistent with the *Memorandum of Understanding on Cooperation in the Transport Sector*.

Many countries do not have a well-developed capability to investigate accidents and serious incidents. In this situation, the ATSB believes that the establishment of a regional accident investigation organisation or the creation of a regional pool of qualified investigators may be the best way to establish an effective accident and incident investigation and prevention system. Australia will pursue opportunities in this regard in the Asia Pacific region, including taking a leading role in the ICAO Asia Pacific Accident Investigation Group (APAC AIG) and the Marine Accident Investigations Forum in Asia (MAIFA).

Indonesia

Between July 2012 and June 2013, the ATSB and the Indonesian National Transportation Safety Committee (NTSC) collaborated on a range of ITSAP activities. In one project, a group of senior NTSC investigators, guided by ATSB facilitators, developed an Aircraft Accident Investigation Fundamentals course that was successfully delivered to NTSC staff and Indonesian industry participants. In another project, two NTSC marine trainee investigators took part in a three month placement at the ATSB as part of a program of training and professional development.

ATSB marine investigators and recorder specialists assisted the NTSC investigation into the collision at sea between the *Ferry Bahuga Jaya* and the cargo tanker *Norgas Cathinka* that occurred on 26 September 2012 in the Sunda Strait, off the coast of Indonesia, with the loss of seven lives.

Ongoing collaboration between the ATSB and NTSC flight data recorder laboratories consolidated earlier work in this area. On 13 April 2013, a Lion Air B737-800 aircraft crashed on final approach to Denpasar Ngurah Rai Airport, Bali. The aircraft's flight data recorder (FDR) and cockpit voice recorder (CVR) were recovered from the accident site and successfully downloaded at the NTSC recorder laboratory by NTSC staff. This significant achievement highlights the high-level capability that the NTSC has developed in this aspect of aircraft accident investigation, supported by the ITSAP program.

Papua New Guinea

Under the PNG *Memorandum of Understanding on Cooperation in the Transport Sector*, the ATSB has an ongoing program of cooperation and capability building with the PNG Accident Investigation Commission (AIC). Training has been provided to AIC investigators and investigation support staff, and ATSB investigators have provided guiding and mentoring to AIC investigators. The ATSB is also cooperating with the AIC in the investigation of a number of PNG aviation accidents.

In September 2012, an ATSB Senior Transport Safety Investigator was deployed full-time to the AIC in Port Moresby to assist PNG to develop the capability to meet the international requirements for aviation safety investigation. The ATSB deployee will give advisory support to the AIC and guide and mentor AIC investigators in all aspects of their work.

Other regional engagement activities

The ATSB continued to make its expertise and resources available for the betterment of regional transport safety. The ATSB hosted visits from India, Korea, Nepal, Pakistan, Thailand, United Arab Emirates, and the USA for discussions related to transport safety investigation.

Two areas in which the ATSB is a regional centre of excellence are the fields of technical analysis and human factors.

In January 2013, investigators from the Myanmar Accident Investigation Bureau (MAIB) visited the ATSB for the download and analysis of the FDR and CVR from an accident involving an Air Bagan Fokker F100. The aircraft crashed on approach to Heho airport, Myanmar, with the loss of two lives. Five Australians on board the aircraft survived without serious injury. Downloading the aircraft's flight data recorders was technically demanding since they were damaged by fire. The following feature article provides details of the technical challenges presented by this work.

In human factors, participants from Korea, Singapore, Taiwan, and New Zealand attended specialist Human Factors for Transport Safety Investigators training at the ATSB.

FEATURE

Myanmar Data Recovery—Damaged black boxes (AE-2013-004)

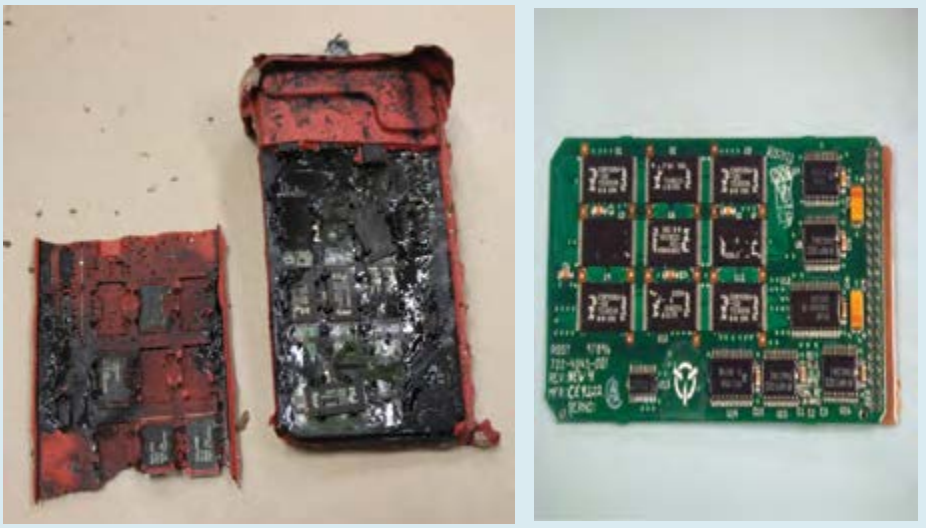
Technical Achievement—Damaged black box flight recorder data recovery

The modern 'black box' flight recorder is designed and engineered to withstand the extreme conditions associated with aircraft accidents. They regularly survive extreme impacts, pressures and temperatures. Advancements in recording technology using solid-state devices have further improved the reliability, durability and robustness of these vital pieces of equipment. At times however, accidents occur that can severely test these limits—and the resourcefulness of the accident investigation specialists seeking to recover the valuable data within.

Severely fire-damaged flight data recorder—as received

This was the challenge facing the ATSB's Aviation Recorder specialists when they received the flight data recorder (FDR) and cockpit voice recorder (CVR) from a Fokker F100 aircraft that had crashed in low visibility conditions on approach to Heho airport, Myanmar. The aircraft collided with trees and a set of high-voltage power lines, tearing away both wings and triggering an intense fire that consumed the fuselage. Incredibly, loss of life was limited to one of the aircraft's occupants and a person on the ground.

Because of the poor condition of the recorders, the Myanmar Accident Investigation Bureau (MAIB) sought assistance from the ATSB for the data recovery work, and a team of investigators from the MAIB, the Myanmar Department of Civil Aviation, the aircraft operator, the Dutch Safety Board (representing the State of Manufacture of the aircraft) and the Singapore Air Accident Investigation Bureau attended the ATSB's Canberra offices during January 2013.



Badly heat affected flight data recorder memory unit (with an undamaged comparison)—a challenge for data recovery specialists.

On first examination, the solid-state universal flight data recorder (SSUFDR) showed extensive fire and thermal damage, with some of the memory chips completely separated from the main board—rendering conventional recovery techniques unusable. While the board was extensively damaged, the individual memory chips appeared intact, and so with advice from the recorder manufacturer and using skills honed in the ATSB's solid state device recovery laboratory, staff began a painstaking and meticulous process of desoldering, cleaning and reading out the chip data. Chip-by-chip, the raw data was extracted and compiled into a coherent story of the aircraft's last hours. Eventually, the entire contents of the FDR were successfully recovered and allowed investigators to examine 78 of the aircraft's key operating parameters extending back across several flights. Together with the CVR audio, investigators were able to build a clear picture of events leading up to the accident, allowing an understanding of what went wrong and the formulation of targeted and effective safety action.

4 Financial performance

This section should be read in conjunction with the ATSB's audited financial statements for 2012–13 that appear in the Financial Statements section of the Annual Report.

The ATSB operates as a separate FMA Agency, having been established on 1 July 2009. The main assets of the ATSB were transferred from the Department of Infrastructure and Transport and include plant and equipment, including specialised laboratory assets and intangible software assets.

During 2012–13 the ATSB continued to receive additional appropriation revenue to assist in funding the ATSB in continuing its preparations in becoming the national safety investigator across all Australian rail networks from 1 January 2013.

The Government no longer provides appropriation funding to cover non-cash expenses of depreciation and amortisation to FMA Agencies. In the absence of revenue for depreciation and amortisation, the ATSB and other FMA agencies are more likely to deliver a negative operating result or deficit and these will accumulate. Offsetting this build-up of retained deficits requires a commitment by the Government to provide annual capital injections to meet new capital requirements.

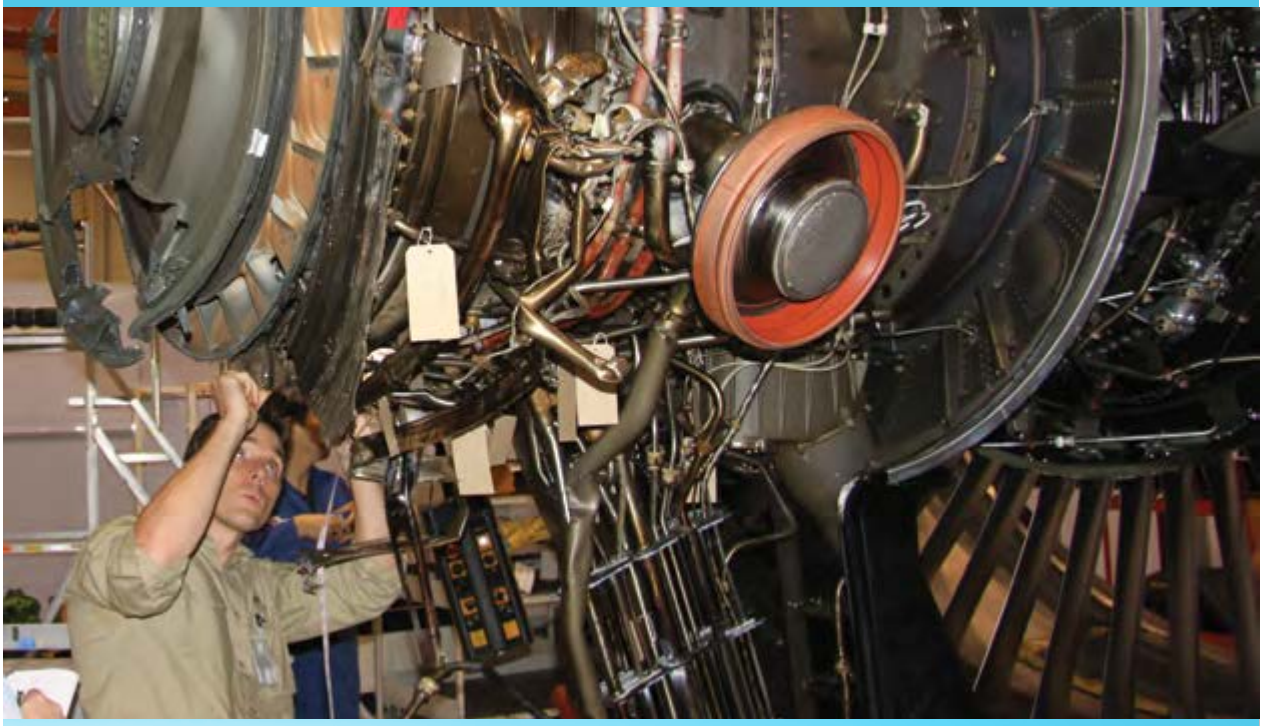
The ATSB's new capital requirements are detailed in its Departmental Capital Budget published in the 2012–13 Portfolio Budget Statements. Over time, the ATSB's estimated capital injections fall short of the deficits associated with the non-funding of depreciation and amortisation. Without adequate capital injections by Government, this presents a challenge to the ATSB in maintaining its underlying equity and asset capability going forward.

The ATSB recorded a deficit of $1.2 million for 2012–13, compared to a deficit of $1.4 million in 2011–12. Excluding depreciation and amortisation, the ATSB realised an underlying surplus of $310,000 which compares to a $246,000 deficit in 2011–12. The main factors contributing to the 2012–13 operating result are a lower level of activity in investigation services and deployments in aviation, delays in the implementation of some components of the national transport reforms around the marine investigator role, and a lower than expected FTE level due to the lead times associated with recruitment processes.

Table A: Summary of financial performance and position

		2012–13 $M	2011–12 $M
Revenue from Government		21.8	21.3
Other revenue		1.8	1.2
Total income		23.6	22.5
Employee expenses		16.0	15.9
Supplier expenses		7.3	6.9
Depreciation and amortisation		1.5	1.1
Total expenses		24.8	23.9
Operating surplus/(deficit)		(1.2)	(1.4)
Financial assets	A	8.2	8.5
Non-financial assets	B	3.9	3.3
Liabilities	C	5.8	6.1
Net Assets - A + B – C		6.3	5.7

Section 4



Significant safety investigations

This section of the Annual Report fulfils the requirement that the ATSB report to the Minister a description of investigations conducted during the financial year that the Chief Commissioner considers raise significant issues about safety.

Aviation investigations

Collision with terrain involving a Piper PA-31P-350 Mojave aircraft, VH-PGW 6 km north-west of Bankstown Airport, New South Wales on 15 June 2010. Investigation AO-2010-043

The final report was released to the public on 20 December 2012. The aircraft was being positioned from Bankstown Airport, New South Wales (NSW) to Archerfield Airport, Queensland for a medical patient transfer flight back to Albury, NSW. At the time of the accident, the pilot was attempting to return to Bankstown following a reported in-flight engine shutdown.

The ATSB found that following the shutdown of the right engine, the aircraft's airspeed and rate of descent were not optimised for one engine inoperative flight. Spectral analysis of radio transmissions from the aircraft indicated that it was unlikely the left engine was being operated at maximum continuous power as the aircraft descended. The aircraft continued descending to a low altitude and the pilot was then unable to maintain level flight, resulting in a collision with terrain in a suburban area about 6 km north-west of Bankstown Airport. The pilot and flight nurse were fatally injured and the aircraft was destroyed by the impact forces and an intense post-impact fire.

A safety issue was identified in respect of the need to include guidance information about engine problems encountered during the climb and cruise phases of flight in the existing advisory material on multi-engine aircraft training and operations. In response, the Civil Aviation Safety Authority (CASA) commenced a project to amend that guidance material to include information about aircraft handling, engine management, and decision making during these phases of flight.

Operation of the PZL-Mielec M18 Turbine Dromader at take-off weights above 4,200 kg. Investigation AI-2011-150

This safety issue investigation report was released to the public on 9 April 2013. An initial examination of the results from a number of ATSB investigations into fatal accidents involving PZL-Mielec M18 Turbine Dromader aircraft identified a number of actual and potential safety issues in respect of the operation of M18 Dromader aircraft at take-off weights above 4,200 kg. In response, this safety issues investigation was initiated in November 2011 and sought to understand any common factors across the previous investigations, and whether there were any implications for the continued safe operation of the type at those increased weights.

The investigation identified four safety issues related to the operation of M18 aircraft at increased weights. Although some of these issues were relatively minor in isolation, collectively the increase in risk was significant, and the investigation illustrated the need for careful consideration of potential risks when expanding an aircraft's role and/or capability. In response, the engineering organisation that developed the relevant aircraft modification to permit operations at increased weights amended the requirements of the modification for consideration and approval by CASA.

PZL –Mielec M18 Turbine Dromader

In-flight uncontained engine failure involving an Airbus A380-842, VH-OQA, overhead Batam Island, Indonesia on 4 November 2010. Investigation AO-2010-089

The most significant investigation completed in the past year was that into the uncontained engine failure of a Qantas Airbus A380 over Batam Island, Indonesia on 4 November 2010. This investigation has been one of the more complex undertaken by the ATSB in recent years and has involved a substantial commitment of resources.

This final report was released to the public on 27 June 2013. The flight had departed Changi Airport, Singapore, en route to Sydney, New South Wales. On climb through 7,000 ft, the aircraft's No. 2 engine (a Rolls-Royce Plc Trent 900) sustained an uncontained engine rotor failure of the intermediate pressure turbine disc. The engine failure was the result of a fatigue crack in the oil feed stub pipe that allowed the release of oil into the engine and resulted in an internal oil fire. This fire led to the separation of the engine's intermediate pressure turbine disc from the drive shaft. The disc rapidly accelerated and burst, with sufficient force that the engine structure could not contain it, releasing high-energy fragments and debris. Multiple impacts were sustained by the aircraft resulting in significant structural and systems damage.

The ATSB found that a number of oil feed stub pipes within a number of Trent 900 high pressure/intermediate pressure (HP/IP) hub assemblies, including that from the No. 2 engine on VH-OQA, were manufactured with thin wall sections that did not conform to the design specifications. The thin wall significantly reduced the fatigue endurance of the affected oil feed stub pipes, increasing the risk of premature, in-service failure.

In addition to the critical safety issue that was identified within one month of the accident, and resulted in the ATSB issuing a safety recommendation to Rolls-Royce Plc, 12 safety issues were identified by this investigation. Adequate safety action was taken by the relevant stakeholders in respect of the initial critical safety issue and 11 of the subsequent safety issues identified. To address the outstanding safety issue, the ATSB issued safety recommendations to the European Aviation Safety Agency and US Federal Aviation Administration, recommending their cooperation in reviewing the damage sustained by VH-OQA, and the incorporation of any lessons learned into their certification advisory material to enhance the safety of future aircraft designs.

Robinson R44 Helicopter tanks

A significant aviation safety issue that has been brought to a conclusion in the past year is that relating to the crashworthiness of Robinson R44 helicopter fuel tanks. R44 helicopters with all-aluminium fuel tanks proved to be susceptible to tank rupture during comparatively low-impact accidents, increasing the subsequent risk of a potentially fatal fire. In December 2010, the helicopter manufacturer issued a service bulletin requiring the replacement of the original aluminium fuel tanks with more impact-resistant bladder-type tanks as soon as possible, but no later than 31 December 2014. Subsequently, several fatal accidents in Australia highlighted the significance of the issue and prompted direct safety action.

The first such accident that the ATSB investigated occurred at Cessnock on 4 February 2011 when a fire erupted following an R44's relatively low impact collision with terrain. The ATSB's investigation report identified the fuel tank rupture susceptibility as a significant safety issue.

One year later, on 4 February 2012, there was another fatal accident in which a fire destroyed an R44 helicopter, this time at Jaspers Brush, NSW. The investigation found that, in attempting to shut a door that was not properly latched and had opened during the turn to depart, the pilot had probably let go of the cyclic control from the normal (right) control hand. This allowed for an unintended, abrupt nose-up pitch with the helicopter tail hitting the ground. The helicopter nosed over and impacted the ground. A fire began when one of the fuel tanks was breached. This accident led both the ATSB and CASA to highlight the importance to operators of R44 helicopters of upgrading the fuel tanks of R44 helicopters in accordance with the manufacturer's recommendations.

Following the accident, on 21 February 2012, the helicopter manufacturer reduced the compliance time on the existing service bulletin. A second bulletin aimed at removing a possible impact-related ignition source was also issued. The ATSB encouraged operators to comply with the bulletins. The ATSB's concern about this matter was reflected in our SafetyWatch initiative that highlights the most significant safety concerns and informs our communications processes.

In a third accident, on 21 March 2013, a Robinson R44 was maneuvering at a grassed area at Bulli Tops, NSW. Shortly after landing, the helicopter lifted off and turned to the right. The main rotor struck branches of a nearby tree, and the helicopter descended and then rolled over onto its right side. A fire started on the grass under the rotor mast and the cabin. The pilot and the three passengers were fatally injured. Following this accident the ATSB issued a Safety Recommendation to CASA that it take further action to ensure that R44 helicopter operators were aware of regulatory requirements for retrofitting the fuel tank with the bladder-type tank.

On 29 April 2013, CASA issued AD/R44/23 requiring compliance with the bladder-type tank retrofit service bulletin before further flight after 30 April 2013.

Helicopter winching accident involving an Agusta Westland AW139 helicopter, VH-SYZ, 16 km west-south-west of Wollongong Airport, New South Wales on 24 December 2011. Investigation AO-2011-166

The final report was released to the public on 16 May 2013. After homing to an emergency locator beacon radio signal, the crew of the search and rescue helicopter identified a seriously injured person on a rock ledge near the bottom of a waterfall. During the attempted patient retrieval, the patient and one of the paramedics fell onto rocks at the base of the waterfall. The paramedic died from the impact. The patient was subsequently transported to hospital for treatment. The investigation identified that, due to a number of factors including reduced light, the paramedic and patient were accidentally pulled from the rock ledge as the helicopter was manoeuvred in preparation to lift them out using its winch.

Four safety issues were identified during the course of the investigation, with safety action taken in response by the state ambulance service and helicopter operator that were involved in the accident. The accident highlighted the dangers associated with modifying established procedures in order to complete a difficult, and potentially not previously experienced, rescue task. Specifically, the use of procedures that were neither documented nor trained for by crews made it difficult to identify hazards and manage the related risks.

Loss of separation incidents. Investigation AR-2012-034

In controlled airspace (areas where there is an air traffic controller overseeing), aircraft are required to maintain a minimum distance from each other. Aircraft separation standards are set to ensure that the chance of a mid-air collision is very remote. Various separation standards are used depending on the operating environment (ground or air) and level of real-time surveillance to which the controller has access. Some of these standards are based on a minimum distance between aircraft, while others are based on the flying time between two aircraft passing the same location. When the separation between two or more aircraft is less than the standard, there is a loss of separation (LOS).

The ATSB commenced a combined total of 20 investigations into loss of separation (LOS)/loss of separation assurance (LOSA) events and completed 14 LOS/LOSA investigations last year. By 30 June 2012, ten LOS/LOSA investigations were ongoing and one LOS investigation had been discontinued. In an effort to identify and understand any underlying implications for safety from this ongoing investigative effort and that of previous years, on 21 February 2012 the ATSB commenced safety research investigation AR-2012-034, *Loss of separation between aircraft in Australian Airspace, January 2008 to June 2012.* This research is still underway. It will make an integrated examination of all LOS occurrences between 2008 and June 2012, and will analyse the related occurrence investigations to identify any common underlying safety issues.

Marine investigations

Foundering of the general cargo ship *Tycoon*, Christmas Island. Investigation MO-2012-001

On the morning of 8 January 2012, one of the permanent mooring lines holding the general cargo ship *Tycoon* in position in the inner moorings at Flying Fish Cove, Christmas Island, broke free from its anchor. As a result, the ship moved forward and closer to the nearby terminal rock face, eventually making contact with the rock face as the weather and sea conditions deteriorated. Despite attempts to move it away, *Tycoon* continued to pound against the rock face. Eventually, the ship's engine room began to flood through a tear in the hull. Shortly afterwards, the crew safely abandoned the ship.

At approximately 1100 on 9 January, *Tycoon* suffered a catastrophic failure of its hull and the contents of the ship's number two cargo hold, about 260 tonnes of bagged phosphate, was exposed to the sea. The ship continued to be pounded by the sea and swell and, over the following months, it broke up under the action of the waves. On 14 May, salvors were appointed and by 26 July the wreck had been removed from Flying Fish Cove.

The ATSB found that the shackle connecting the port's cantilever mooring line to its anchor chain failed and that *Tycoon's* master did not advise shore authorities of his concern regarding the deteriorating conditions or that the cantilever mooring line had broken free. He also did not make proper use of the ship's main engine or mooring lines in an attempt to keep the ship in position after the mooring line came free.

In addition, it was found that there had been no risk assessment undertaken by successive port managers with regard to the use of the inner moorings and that there was little guidance provided to the masters of ships intending to moor in Flying Fish Cove. Furthermore, the managers of the port had not implemented an effective inspection and maintenance program and therefore were not aware of the deteriorated condition of the aft mooring line shackle.

Following this incident, the port operator has started to fly diving contractors into Christmas Island to complete the annual dive inspection and has commenced replacing and upgrading the mooring equipment. It is developing a Port Handbook that will be provided to the master of each ship. The port operator is also facilitating safety training workshops that will act as a forum through which the risks posed to the port and its operations can be assessed.

The wreck of *Tycoon* awaiting salvage

Stevedore fatality on board the general cargo ship *Weaver Arrow*, Newcastle. Investigation MO-2012-010

On 23 September 2012, a stevedore working on board the general cargo ship *Weaver Arrow* died after being crushed under packs of aluminium ingots which toppled over during loading in Newcastle, NSW. Other stevedores raised the alarm and tried to help the injured man but he showed no signs of life. Paramedics and police officers arrived on the scene shortly afterwards and confirmed that the stevedore was deceased.

The ATSB found that the stevedore was climbing down aluminium ingot packs to work on a lower tier of the cargo when the packs toppled over and that it was usual for some stevedores to climb up or down ingot packs to work on different cargo tiers instead of using the ladders provided.

The investigation identified that the ingot cargo units or lifts (multiple packs of ingots strapped together) were inherently unstable and prone to toppling over. The stevedoring company's procedure for loading aluminium products did not adequately address the risk of the cargo toppling over and the implementation of basic precautions, such as using ladders to climb between cargo tiers, was not effectively monitored or enforced.

The ATSB also found that stevedores often worked extended hours, exposing the company's operations to a level of fatigue-related risk that had not been assessed and treated.

Immediately after the accident, Newcastle Stevedores, the stevedoring company, re-assessed the risks involved in loading aluminium ingots and revised its procedures for managing the risk of an ingot lift toppling. The primary measure was establishing an exclusion zone adjacent to a lift. This was included in a revised procedure for ingot loading with other measures such as the use of ladders. Steps to implement the procedure and ensure compliance included increased monitoring

of loading operations. Other safety actions taken include an independent review of procedures, retraining of senior grade stevedores in hazard management, developing a process to reject hazardous lifts and suggestions to improve ingot lift configurations.

Patrick Ports and Stevedoring, the company responsible for preparing ingot packs for loading, has taken steps to enhance the stability of ingot lifts and a review is ongoing to identify other ways to address the issue. The main action taken is the addition of vertical straps to hold together ingot stacks in a lift.

Gearbulk Norway, *Weaver Arrow's* manager, has made toppling of cargo a specific agenda item at the daily meetings between senior staff on board its ships and stevedores in all ports. Gearbulk Norway has also introduced a policy of rejecting ingot lifts with broken pack, lifting or unitising straps for loading on any of its ships.

The ATSB has recommended that Newcastle Stevedores address the issue of stevedore fatigue and issued two safety advisory notices to all stevedoring companies with regard to the issues concerning ingot loading and fatigue risk.

Ingot lifts adjacent to the accident site on *Weaver Arrow*

Safety issue investigation into Queensland Coastal Pilotage. Investigation MI-2010-011

On 16 December 2010, the ATSB released the findings of its investigation of the 2009 grounding of the piloted tanker *Atlantic Blue* in the Torres Strait. The Australian Maritime Safety Authority (AMSA) indicated concern that these findings might point to broader systemic issues affecting the safety of coastal pilotage operations. Notably, AMSA felt that the ATSB was ideally placed to investigate these issues given the ATSB's independence and investigative powers, and that it would be pleased to see the ATSB investigate this matter. The findings of previous ATSB investigations and a number of coastal pilotage reviews also indicated that there could be safety issues. Consequently, the ATSB initiated a systemic safety issue investigation into Queensland coastal pilotage.

The ATSB obtained information for the investigation through a survey of all 82 licensed coastal pilots and submissions from 15 stakeholders, including the two main pilotage providers. Further evidence was obtained by interviewing 22 pilots and meeting with AMSA, all three providers and other key stakeholders. Other material taken into account by the investigation included past and present issues of Marine Orders Part 54 (MO 54), the regulatory instrument governing coastal pilotage, and previous reviews of the coastal pilotage regime.

The report identifies that under successive issues of MO 54, no organisation(s), including the pilotage providers, has been made clearly responsible and held accountable for managing all the safety risks associated with pilotage operations. This resulted in the effective devolution of responsibility for managing the most safety critical aspects of pilotage to the individual pilots. The report also identifies systemic issues with the potential to affect future safety relating to pilot training, fatigue management, risk event reporting, check pilotage and the utilisation of coastal vessel traffic services.

While action has been taken by AMSA and the pilotage providers to address these safety issues, the ATSB has recommended that further action should be taken. The ATSB is currently monitoring the effectiveness of these actions.

Rail investigations

Edith River. Investigation RO-2011-019

On 27 December 2011, freight train 7AD1, owned and operated by Genesee & Wyoming Australia Pty Ltd (GWA), derailed at the Edith River rail bridge near Katherine in the Northern Territory. GWA was also the owner and operator of the rail track.

The train driver was unhurt as a result of the derailment, but the co-driver suffered back injuries and there was significant damage to the bridge and rolling stock. A number of wagons including the crew van, which was unoccupied at the time, derailed into the Edith River.

The ATSB found that the derailment was caused by the wash-away of the south eastern embankment, associated sub-grade and ballast on the approach side of the rail bridge. The extent of the wash-away meant that the track could not support the weight of the train and it collapsed. The wash-away resulted from a severe flood event caused by torrential rain in the aftermath of cyclone 'Grant'.

In response, GWA undertook a range of actions to enhance its policies, procedures and employee training for managing risks associated with severe weather events. GWA also looked to enhance its systems for alerting staff to severe weather events including flood risks.

This event demonstrated that it is essential for rail network operators to have robust systems in place to monitor and mitigate the risk of severe weather events and ensure that the safety of railway operations is not compromised.

Derailment at Edith River, NT — crew van in foreground

Dry Creek. Investigation RO-2011-016

A collision between two freight trains at Dry Creek in South Australia resulted in a rail operator amending its procedures for situations when trainee drivers are under supervision.

The accident occurred on 11 October 2011 as an empty ore train was being driven by a driver-in-training with a co-driver supervising. As they proceeded on the interstate main line from Pelican Point to Rankin Dam (near Coober Pedy), the drivers were expecting a clear run without any stops through Dry Creek. The supervising driver was completing an administrative task and the driver-in-training, who was learning the route, became distracted by the headlights of a train ahead, believing it was in an adjoining yard. As a result, they missed an important caution signal, indicating that the train should stop at the next signal.

When the train was about 100 m from the signal, the driver noticed the stop signal. He used the emergency train brake, but passed the stop signal. The train travelled a further 218 m before colliding with the middle of the other train, loaded with grain, which was leaving the interstate main line and entering the adjoining rail yard.

The collision was at low speed and there was no injury to the crew of either train. There was significant damage to the crew cab of the lead locomotive of the ore train and to the grain wagons of the grain train.

Following the accident, the operator amended its procedures to clarify the role and responsibilities of a driver supervising a trainee, and introduced arrangements to inform the supervising driver of the trainee's level of competency. Robust procedures that systematically manage the supervision, training and assessment of drivers' route knowledge are vital for ensuring competency and addressing risks.

Section 5

Transport safety statistics

Aviation

The ATSB is the keeper of the national record for all reported aviation occurrences, including accidents, serious incidents and incidents. The reporting of aviation occurrences is required across all aviation sectors, including aircraft registered with recreational aviation associations.

For this reason, more comprehensive occurrence statistics can be generated by the ATSB for aviation 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 Tables 1 to 3 represents those aviation accidents, serious incidents and incidents that have been reported to the ATSB over the past five years. Information about those occurrences is entered into the ATSB's aviation occurrence database, and decisions made about which of those occurrences will be investigated by the ATSB.

Table 1 shows occurrences from commercial air transport operations, including regular public transport and charter operations. There have been up to six fatalities per year in the past five years, mostly from charter operations. In 2012 there was one fatal accident that resulted in a single fatality involving charter flights.

Table 1: Commercial air transport occurrences and injuries reported to the ATSB, 2008–2012

	2008	2009	2010	2011	2012	TOTAL
Aircraft involved in:						
Incidents	4,046	3,867	4,532	4,930	5,067	**22,442**
Serious incidents	47	24	34	27	40	**172**
Accidents	29	11	23	21	13	**97**
Total occurrences	**4,122**	**3,902**	**4,589**	**4,978**	**5,120**	**2,711**
Number of injuries:						
Serious injuries	15	3	2	2	2	**24**
Fatalities	6	-	2	2	1	**11**
Total fatalities and serious injuries	**21**	**3**	**4**	**4**	**3**	**35**

In the case of VH-registered general aviation operations, there have been between 98 and 127 accidents per year and between 16 and 34 fatalities per year. In 2012, there were 29 fatalities from general aviation, similar to 2011 (Table 2).

Table 2: General aviation occurrences and injuries reported to the ATSB, 2008–2012

	2008	2009	2010	2011	2012	TOTAL
Aircraft involved in:						
Incidents	3,534	3,684	3,563	3,147	2,878	**16,806**
Serious incidents	108	98	135	131	158	**630**
Accidents	126	119	127	109	98	**579**
Total occurrences	**3,768**	**3,901**	**3,825**	**3,387**	**3,134**	**18,015**
Number of injuries:						
Serious injuries	23	13	19	20	11	**86**
Fatalities	34	16	16	28	29	**123**
Total fatalities and serious injuries	**57**	**29**	**35**	**48**	**40**	**209**

Occurrences reported to the ATSB from non VH-registered (recreational) aircraft can be seen in Table 3. Unlike commercial and general aviation, the numbers of injuries and incidents show an increase over the last 5 years. Also, the number of injuries relative to the number of occurrences is much higher. There is about twice the number of incidents to accidents rather than 200 times more in commercial air transport operations or 29 times more in general aviation. This is likely to be due to under-reporting of incidents in the recreational aviation sector and/or less extensive reporting requirements for those operations. In 2012 there were nine fatalities recorded for recreational aircraft.

Table 3: Recreational aviation (non VH-registered) occurrences and injuries reported to the ATSB, 2008–2012

	2008	2009	2010	2011	2012	TOTAL
Aircraft involved in:						
Incidents	88	79	119	130	147	**563**
Serious incidents	19	8	17	9	42	**95**
Accidents	40	41	58	59	85	**283**
Total occurrences	**147**	**128**	**194**	**198**	**274**	**941**
Number of injuries:						
Serious injuries	4	4	12	15	23	**58**
Fatalities	3	11	7	8	9	**38**
Total fatalities and serious injuries	**7**	**15**	**19**	**23**	**32**	**96**

For more detail concerning the types of occurrences and types of aircraft involved, see the annual ATSB publication *Aviation Occurrence Statistics*.

Marine

The information contained in Table 4 represents those marine accidents, serious incidents and incidents 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 occurrences will be investigated by the ATSB. The legislative basis for this reporting requirement is contained in the TSI Act and the associated Regulations.

Table 4 shows that there were between 71 and 154 Immediately Reportable Matters per year reported to the ATSB between 2008 and 2012, most of which were considered to be incidents. For 2012, there were five accidents and 12 serious incidents. Furthermore, there were between 20 and 39 serious injuries and fatalities per year, with six fatalities recorded for 2012.

Table 4: Marine occurrences and injuries reported to the ATSB, 2008–2012

OCCURRENCE CATEGORY	2008	2009	2010	2011	2012	TOTAL
Number of occurrences:						
Incidents	65	94	72	92	137	**460**
Serious incidents	3	2	5	5	12	**27**
Accidents	3	3	3	6	5	**20**
Total occurrences	**71**	**99**	**80**	**103**	**154**	**507**
Number of injuries:						
Serious injuries	17	25	25	25	33	**125**
Missing	0	0	0	0	0	**0**
Fatalities	3	3	3	7	6	**22**
Total injuries/fatalities	**20**	**28**	**28**	**32**	**39**	**147**

For more detail about the above marine occurrences, including locations, vessels involved, and types of occurrences, see the ATSB publication *Australian Shipping Occurrence Statistics 2005 to 2012 (MR-2013-002).*

Rail

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

As part of this shared responsibility, industry operators were required to report rail safety occurrences to the state/territory regulators. Regulators use this data to assist their safety analyses and programs. In addition, the data was supplied to the ATSB twice a year by state and territory rail safety regulators to enable the ATSB to publish the biannual *Australian Rail Safety Occurrence Data.* The last publication of this report was in November 2012 (Report number RR-2012-010) detailing ten years of data up until June 2012.

The state and territory regulators also evaluate occurrence reports received from industry and provide those considered to be Immediately Reportable Matters under the TSI Act and associated regulations to the ATSB. This reporting 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 occurrences will be investigated by the ATSB. From 1 July 2012 until 19 January 2013, there were 28 Immediately Reportable Matters on the Defined Interstate Rail Network reported to the ATSB.

On 20 January 2013, the introduction of the Office of the National Rail Safety Regulator (ONRSR) saw industry in all states except Queensland, Victoria and West Australia now reporting rail safety occurrences to the ONRSR. All immediately and routine reportable matters (equivalent to Category A and B occurrences, respectively, as defined by *ON–S1: Occurrence Standard Notification 1*) in all states except Queensland, Victoria, and West Australia became reportable to the ATSB. For Queensland, Victoria and West Australia, immediately reportable matters remain restricted to those on the defined interstate rail network.

Immediately reportable matters are reported by rail operators directly to the ATSB (except in Queensland, Victoria and West Australia where they are forwarded onto the ATSB from the state regulator). From 20 January to 30 June 2013, there were 163 notifications of immediately reportable matters reported to the ATSB.

Routine reportable matters are reported to the ONRSR by rail operators (except in Queensland, Victoria and West Australia) and then on-reported by the ONRSR to the ATSB. However, due to technical issues with the ONRSR database, the ATSB has received no data associated with occurrences reported to the ONRSR. The total number of rail safety occurrences since 20 January 2013 remains unknown.

The ONRSR has taken over responsibility for publishing reports detailing national rail safety occurrence statistics.

Section 6

Formal safety issues and advices

This section reports on the formal safety issues and advices issued by the ATSB in 2012–13 and their status.

The ATSB prefers to encourage stakeholders to take proactive safety action that addresses safety issues identified in its reports. Nevertheless, the ATSB may use its powers under the TSI Act 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 taken.

When safety recommendations are issued, they clearly describe the safety issue of concern but do not provide instructions or opinions on a preferred corrective action. Like equivalent overseas organisations, the ATSB has no power to enforce the implementation of its recommendations. It is a matter for the agency to which an ATSB recommendation is directed to assess the costs and benefits of any means of addressing a safety issue and act appropriately.

When the ATSB issues a Safety Recommendation to a person, organisation or agency, they 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 (SAN) suggesting that an organisation or an industry sector consider a safety issue and take action where it believes it appropriate. There is no requirement for a formal response to a Safety Advisory Notice.

Safety issues are broadly classified in terms of their level of risk as follows:

- **Critical** safety issue—associated with an intolerable level of risk and generally leading to the immediate issue of a safety recommendation unless corrective safety action has already been taken.
- **Significant** safety issue—associated with a risk level regarded as acceptable only if it is kept as low as reasonably practicable. The ATSB may issue a safety recommendation or a safety advisory notice if it assesses that further safety action may be practicable.
- **Minor** safety issue—associated with a broadly acceptable level of risk, although the ATSB may sometimes issue a safety advisory notice.

Safety issues identified through ATSB investigations

Safety issues are safety factors that:

- can reasonably be regarded as having the potential to adversely affect the safety of future operations, and
- are characteristics of an organisation or a system, rather than characteristic of a specific individual, or characteristic of an operational environment at a specific point in time.

Safety issues will usually refer to an organisation's risk controls or a variety of internal and external organisational influences that impact on the effectiveness of its risk controls. They are factors for which an organisation has some level of control and responsibility and, if not addressed, will increase the risk of future accidents.

Safety issues are risk assessed by the ATSB. Safety action is sought to address any issues resulting in a significant or critical risk. Before issuing a Safety Recommendation or Safety Advisory Notice, the ATSB encourages the relevant organisation(s) to initiate safety action by communicating the safety issue to the organisation(s).

Once safety action has been undertaken, the ATSB conducts another risk assessment of the safety issue. When the post-action risk assessment results in a minor or acceptable level of risk, the safety issue status is categorised as 'Adequately addressed'.

The Portfolio Budget Statement (PBS) specifies as two of the ATSB's key performance indicators (KPIs) that:

- safety action is taken by stakeholders to address 100 per cent of critical safety issues identified; and
- safety action is taken by stakeholders to address 70 per cent of significant safety issues identified.

Status of critical safety issues identified in 2012–13

There were no critical safety issues identified in the 2012–13 financial year.

Summary of safety issues identified in 2012–13

NUMBER OF SAFETY ISSUES	AVIATION	MARINE	RAIL	TOTAL
Critical	None	None	None	*0*
Significant	10	20	4	34
Minor	28	13	8	49
Total	**38**	**33**	**12**	**83**

KPI outcomes for significant safety issues identified in 2012–13

STATUS OF SIGNIFICANT SAFETY ISSUES	AVIATION	MARINE	RAIL	TOTAL	PER CENT
Adequately addressed	8	12	4	24	71%
Partially addressed	0	1	0	1	3%
Not addressed	0	0	0	0	–
Safety action still pending	2	7	0	9	26%
Total	**10**	**20**	**4**	**34**	**100%**

Report on the responses to significant/critical safety issues identified in 2012–13

Aviation

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
AI-2011-150 Operation of the PZL-Mielec M18 Turbine Dromader at take-off weights above 4,200 kg			
There was limited assurance that M18 and M18A Dromader aircraft incorporating Supplemental Type Certificate SVA521 would exhibit acceptable handling and performance characteristics if not fitted with vortex generators and M18B standard elevators.	Adequately addressed	Issue will no longer exist once safety action is completed.	Minor
M18 Dromader aircraft were being operated in the agricultural role at weights for which a 15 degree bank angle limitation had effect, whereas the nature of agricultural operations increased the risk of pilots exceeding that limitation.	Adequately addressed	Increasing the bank angle limit to 45 degrees would make the aircraft practical to use in the agricultural role.	Minor
AO-2010-089 In-flight uncontained engine failure—overhead Batam Island, Indonesia, 4 November 2010, VH-OQA, Airbus A380-842			
Numerous other engines within the Trent 900 fleet were also found to contain a critical reduction in the oil feed stub pipe wall thickness.	Adequately addressed	Rolls-Royce identified engines that contained non-conforming oil feed stub pipes and managed them as required.	Safety issue no longer exists
Misaligned stub pipe counter-boring is understood to be related to the manufacturing process. This condition could lead to an elevated risk of fatigue crack initiation and growth, oil leakage and potential catastrophic engine failure from a resulting oil fire.	Adequately addressed	Inspections of the world-fleet of engines led to more than 50 Trent 900 engines being removed from service as a result of the wall thickness survey and subsequent containment actions.	Minor
Following the separation of the IP turbine disc from the drive arm, the engine behaved in a manner that differed from the engine manufacturer's modelling and experience with other engines in the Trent family, with the result that the IP turbine disc accelerated to a rotational speed in excess of its design capacity whereupon it burst in a hazardous manner.	Adequately addressed	On 3 December, Rolls-Royce released NMSB RB.211-73-AG639, advising Trent 900 operators of the introduction of a revised standard of engine management software that featured an IP turbine overspeed protection system (IPTOS).	Minor

Aviation (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
The evolution of the current advisory material relating to the minimisation of hazards resulting from uncontained engine rotor failures was based on service experience, including accident investigation findings. The damage to Airbus A380-842 VH-OQA exceeded the modelling used in the UERF safety analysis and, therefore, represents an opportunity to incorporate any lessons learned from this accident into the advisory material.	Safety action still pending		
AO-2011-070 Operational non-compliance—17km ENE Melbourne Airport, Victoria, 7 June 2011, VH-VNG, Airbus A320-232			
The operator's lack of awareness of the data providers' assumption that the operator was complying with DO-200A Standards for Processing Aeronautical Data, which was not mandated in Australia, meant that the quality of the data was not assured.	Adequately addressed	A procedure has been developed to properly manage the risks identified in this safety issue.	Minor
The inconsistent application of the operator's safety management system to the identification and rectification of database anomalies, and intermittent notification of these anomalies to crews increased the risk of inadvertent flight crew non-compliance with published instrument approach procedures.	Adequately addressed	A procedure has been developed to properly manage the risks identified in this safety issue.	Minor
AO-2011-090 Loss of separation—BLAKA (IFR Reporting Point) 29 July 2011, VH-VZC, Boeing Company 737-838 / VH-VOT, Boeing Company 737-8FE			
There was no requirement for a systematic risk assessment to be conducted and documented when the planned amount of training for a controller was reduced.	Adequately addressed	The development and implementation of a training variation form, in conjunction with oversight from management, should identify and training variation and document the considered risks and controls.	Minor
AO-2011-159 Double propeller overspeed—near Weipa, Queensland, 6 December 2011, VH-SBV, Bombardier DHC-8-315			
A significant number of DHC-8-100, -200 and -300 series aircraft did not have a means of preventing inadvertent or intentional movement of power levers below the flight idle gate in flight, or a means to prevent such movement resulting in a loss of propeller speed control.	Safety action still pending	The manufacturer has showed an intent to fix the problem with the release of an 'all operator' message stating a pending release of a service bulletin modification to address the problem.	Minor

Aviation (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
AO-2012-021 Collision with terrain—Nowra Aerodrome (Jaspers Brush, 4-Feb-12			
A significant number of R44 helicopters, including VH-COK, were not fitted with bladder-type fuel tanks detailed in the manufacturer's Service Bulletin, SB-78 to improve resistance to post-impact fuel leaks and fire.	Adequately addressed	Manufacturer has made a number of modifications to the helicopter to lessen the hazard and they have placed a time limit on the modifications in an attempt to ensure compliance. CASA has educated the owners of R44 helicopters via Airworthiness Bulletin (AWB) 28-012, titled Robinson R44 Fuel Tanks, issued 26 June 2012.	Minor

Marine

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
MI-2010-011 Independent investigation into Queensland Coastal Pilotage operations			
The potential for the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS) to support coastal pilotage and enhance safety is under-utilised. The service can better support pilotage by: • making all pilots aware of the value of REEFVTS as an additional bridge resource and its capability, including any limitations, to monitor the progress of ships and issue warnings when a hazardous situation is detected • ensuring REEFVTS's electronic systems are optimally set up to ensure that a hazardous situation in any area, including areas where pilots usually leave the bridge to rest, is detected in adequate time to issue a useful warning to the ship(s) involved • equipping vessel traffic service operators with the training and knowledge to best use its systems to support pilotage.	Adequately addressed	The safety action to address this safety issue was adequate and should continue to be so under the ongoing performance monitoring and other measures in place. Therefore, the status of this issue has been closed.	Minor

Marine (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
The safety framework prescribed by successive issues of Marine Orders Part 54 (MO 54) has not assigned the responsibility for the overall management of the safety risks associated with coastal pilotage operations to pilotage providers or any other organisation. This has allowed the following issues to exist: • the 2001 objective of MO 54 to ensure that all pilotage operations are covered by an approved safety management system has not been achieved • the absence of uniform, adequately risk-analysed procedures for the pilotage task and standardised passage plans to allow ship crews to pre-plan passages • pilotage provider safety management systems that only address the risks primarily associated with assigning pilots to ships and pilot transfer operations • the devolution of the responsibility to manage the most safety critical aspects of coastal pilotage to the individual pilots without direct regulatory oversight.	Safety action still pending	The ATSB acknowledges the safety action taken and proposed by AMSA to address the safety issue, in particular the introduction of standard passage plans and the requirement for pilotage providers to develop standard operating procedures for the pilotage task. However, the implementation of a safety management system(s) can only be fully effective if it is supported by the development of an appropriate organisational and industry safety culture promoted and fostered by an accountable organisation(s). In this respect, the much broader revised definition for a pilotage provider in Navigation Act 2012 is consistent with an organisation that can be assigned responsibility for the overall safety management of pilotage under MO 54. The safety issue will be reassessed after MO 54 is revised in July 2013 and its status will remain on monitor with the date set to 22 July 2013.	Significant
The coastal pilot training program and ongoing professional development is inadequate. Factors that limit the effectiveness of the training program and ongoing professional development include the: • absence of a pilotage safety management system for trainees to learn standard, risk-analysed pilotage procedures and practices, consistent with best practice • the training program's 'self-learning' approach by observing different systems and practices of pilots that promulgates non-standard systems when trainees develop individual piloting systems increases the potential for sub-optimal practices • bridge resource management training that is not backed up with a focus on systems-based risk management through standard procedures and systems by using all resources, such as the coastal vessel traffic service's capability • absence of coastal pilotage focused bridge simulator training to augment practical shipboard training.	Safety action still pending	The safety action to address this safety issue so far does not address the issue of adequate local area knowledge which is obtained through experience (on board ships or in simulators). Effective testing of local area knowledge needs to include tests, exercises or exams on board ships and/or simulators. This requirement should not be fulfilled mainly by a blank chart type or written test. Pilotage is the practical application of local area knowledge and skill. The use of simulators is still being discussed. Training requirements for electronic charting systems is positive if somewhat delayed. Given the safety action taken so far, it is not possible to close the safety issue at this stage and its status will remain on monitor with the date set to 22 July 2013.	Significant

Marine (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
The coastal pilot fatigue management plan is inadequate. Factors that limit the effectiveness of the fatigue management plan amongst the 82 pilots surveyed included the: • largely self-managed approach where individual pilots may have conflicting priorities relating to remuneration and other working arrangements • pilot travel and transfer times regularly being included in rest periods • variations in sleep patterns due to irregular working hours and the effect of multiple, consecutive pilotages not being taken into account • dispensations being granted from requirements and, when granting dispensations, the pilot's agreement being used to support the fatigue risk assessment despite a clear conflict of interest with the pilot's remuneration • lack of effective measures to ensure that fatigue during a single-handed pilotage, particularly in the Inner Route, never exceeds an acceptable level.	Safety action still pending	The safety action to address this safety issue so far does not address the main risk related to single-handed pilotage through the Inner Route. Pilot fatigue during this long pilotage and, at times, during shorter pilotages must be managed by individual pilots by taking rest breaks based on their own risk assessments. In other words, fatigue during pilotage is self-managed through such measures. Some of the actions proposed are not yet in place. In these circumstances, it is not possible to close the safety issue at this stage and its status will remain on monitor with the date set to 22 July 2013.	Significant
Risk identification and mitigation in coastal pilotage operations is inadequate as a result of the under-reporting of risk events and incidents by pilots. Indicators of the inadequacies in risk management and/or under-reporting amongst the 82 pilots surveyed included: • significant under-reporting where the number of grounding or collision risk events claimed by pilots in 2010 was about 10 times the number included in AMSA and pilotage provider incident records • pilots citing reasons for under-reporting being personal disadvantage, lack of corrective action taken, no risk reduction and remuneration risk/organisational pressure • no process to record and analyse informal reports made by pilots to AMSA.	Safety action still pending	The AMSA response indicates a position that it does not accept that there is under-reporting and considers objective evidence is mainly REEFVTS records. However REEFVTS cannot detect every situation as explained in the report. The remaining response indicates that efforts to encourage reporting and to analyse any reports made. The effectiveness of any action depends on the action taken by pilotage providers and the implementation of their SMSs. Therefore, the status of this issue will remain on monitor with the date set to 22 July 2013.	Significant

Marine (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
As a measure to assess the adequacy of the individual systems of coastal pilotage and pilot competency, the check pilot system is ineffective. Factors limiting the effectiveness of the check pilot system include the: • absence of uniform assessment standards against which to make an objective assessment because there is no pilotage safety management system with standard, risk-analysed pilotage procedures and practices • conflicts of interest as a result of the check pilot being remunerated by the pilotage provider to assess a peer on behalf of AMSA • conflicts of interest as a result of the working relationships between the pilots and between pilots and their provider • lack of a formal review process for each assessment to ensure corrective action is taken and for continuous improvement.	Safety action still pending	The safety action to address this safety issue relies on a number of measures that have yet to be implemented. Therefore, the status of this issue will remain on monitor with the date set to 22 July 2013.	Minor
MO-2010-008 Collision between the Liberian bulk carrier *Grand Rodosi* and the Australian fishing vessel *Apollo S* in Port Lincoln, South Australia, 8 October 2010			
When the main engine was operated in engine room control mode, there was no automatic interlock to prevent 'wrong way' operation of the engine and no audible alarm to indicate when it was running the 'wrong way'. As a result, the only system protections to warn the crew of 'wrong way' running of the engine were the bridge and engine control room console mounted flashing light indicators.	Adequately addressed	The company put procedures in place and installed an audible alarm on the bridge and in the control room.	Minor

Marine (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
While the Flinders Ports passage plan for Port Lincoln contained information relating to general navigation in the port, such as depths and navigation/channel marks, it did not contain actual passage specific information, such as courses and speeds to be followed. If the plan had contained course and speed information, the ship's crew would have been better prepared for the pilotage.	Adequately addressed	The passage plan has been amended to show courses and speed zones to be followed during a pilotage.	Minor
Flinders Ports had not undertaken a risk assessment, or developed contingency plans for this specific ship-handling manoeuvre in Port Lincoln. Consequently, the pilot had no guidance regarding what actions to take if the berthing manoeuvre did not progress as he planned.	Adequately addressed	Amended risk assessments to include new preventative, as well as restorative, measures to be followed.	Minor
Newlead Bulkers had not implemented any procedures or guidance to inform the crew that extra vigilance was required when operating the main engine in engine room control mode because there was no automatic interlock to prevent 'wrong way' operation of the engine and no audible alarm to indicate when it was running the 'wrong way'.	Adequately addressed	The company introduced new procedures and standing orders.	Minor
MO-2011-001 Independent investigation into the thermal oil heater explosion on board the Hong Kong registered products tanker *Qian Chi* at Brisbane, Queensland, 16 January 2011.			
The design of the burner nozzle allowed the nozzle swirl plate and needle valve to be misaligned when being assembled which in turn led to the needle valve stem being damaged during assembly. Furthermore, the maintenance manuals and supporting documentation supplied by Garioni Naval, the thermal oil heater manufacturer, did not provide sufficient guidance to ensure safe and appropriate maintenance of the thermal oil heater burner assembly.	Adequately addressed	Increased awareness will assist in assessment of the issues involved and contribute to safety actions which reduce the risks with this equipment. Dialogue and awareness are necessary steps towards achieving an engineering solution to the issue.	Minor

Marine (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
Brisbane port authorities had not put in place sufficient procedures, checklists and/or supporting documents to ensure VTS staff were adequately prepared, trained and practiced to handle a predictable incident such as this.	Adequately addressed	Any marine incident will always trigger a review of contingency plans and operational procedures. This incident, along with an internal review and the subsequent ATSB draft report has provided Maritime Safety Queensland (MSQ) with the opportunity to look at its procedures in Brisbane VTS. MSQ is a strong supporter for reviewing procedures based upon experience, incidents and exercises and a review will occur not only in Brisbane but throughout the Queensland port network. As a result of the MSQ submission, and discussions held with MSQ in relation to this investigation, the ATSB is satisfied that the actions taken by MSQ will adequately address this safety issue. MSQ assessment of its procedures and training regime to identify the risks and responses associated with this type of incident should help address the issues raised in this investigation.	Minor
MO-2011-004 Independent investigation into the grounding of the Panama registered bulk carrier *Dumun* at Gladstone, Queensland, 29 April 2011			
There has not been a comprehensive safety management system implemented in the Port of Gladstone with the aim of identifying, evaluating and controlling pilotage related risk.	Adequately addressed	MSQ has advised that it has pilotage safety management systems in place in Cairns and Townsville and has appointed a consultant to assist with the development and implementation of a single safety management system covering all of its pilotage operations.	Minor
There has not been a comprehensive risk based approach to contingency planning for deep draught bulk carrier operations in Gladstone.	Partially addressed	MSQ has advised the ATSB of increased vigilance on the part of pilots to gain better information about ships before their departure. The agency has also considered the use of escort tugs but has determined that their use would provide only a marginal risk reduction at a significant cost.	Minor
MO-2011-010 Man overboard fatality from the container ship *MSC Siena*, off Fremantle, Western Australia, 17 November 2011			
MSC Siena's safety management system procedure for working over the side required that a risk assessment be carried out, and necessary checks and precautions documented in a work permit. However, the procedure had not been effectively implemented on board the ship.	Adequately addressed	The ATSB is satisfied that the action taken by Allseas Marine, Greece will adequately address the safety issue because it reduces the likelihood of a similar incident to rare (more than once every 10 years or between 10 and 100 years).	Minor

Marine (continued)

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
MO-2012-001 Independent investigation into the foundering of the Panama registered general cargo ship *Tycoon* at Christmas Island, 8 January 2012			
The port operator had not implemented an effective planned inspection and maintenance program for the mooring system in Flying Fish Cove. Consequently, it had been 18 months since the underwater components of the cantilever line had been inspected.	Adequately addressed	This safety action taken will result in the replacement of the underwater components and an update to the planned maintenance system.	Minor
The port operator was aware that the type of locking pin arrangement on the cantilever line joining shackle was not effective in preventing the shackle's pin from working its way free. However, the operator had not implemented a program of replacing the shackles in the entire mooring system in Flying Fish Cove with new shackles that had a more robust locking pin arrangement.	Adequately addressed	The replacement of the underwater mooring components will result in the replacement of all shackles with shackles with a more robust locking arrangement.	Minor
A risk assessment for mooring a ship at the inner moorings had never been undertaken. As a result, the risks associated with leaving a ship at the inner moorings overnight during the swell season were not properly identified and strategies to minimise those risks were not implemented.	Safety action still pending	The ATSB recognises that the actions taken by Patrick are a step in the process of effectively assessing the risks posed to the port and its operations. However, the ATSB recommends that Patrick takes further action to carry through with its intent to address this safety issue.	Significant
MO-2012-010 Stevedore fatality on board the general cargo ship *Weaver Arrow* at Newcastle, New South Wales, 23 September 2012			
While the risk of aluminium ingot stacks toppling over had been identified by the stevedoring company as a result of past incidents, its procedure for loading aluminium products had not evolved to adequately address this risk. Furthermore, the implementation of basic precautions such as using ladders to climb between ingot tiers was not effectively monitored or enforced.	Adequately addressed	Safety action taken is adequate and reduces risk to minor.	Minor
The stevedoring company had not identified stevedore fatigue as a risk to the company or its operations and, as a result, had not implemented a system to manage fatigue. Consequently, its operations were exposed to a level of fatigue-related risk that had not been assessed and treated.	Safety action still pending	Action taken does not address the issue.	N/A

Rail

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
RO-2011-012 Partial separation of Express Passenger Train (XPT) ST24 at Broadmeadows, Victoria, 11 August 2011			
RailCorp's acceptance testing regime for tail pins did not identify that the tail pins stamped BU 06 04 were below standard, hence not suitable for service.	Adequately addressed	The ATSB is satisfied that the action taken by RailCorp to improve its acceptance procedure addresses this safety issue.	Minor
The method used to ultrasonically test the tail pins in-situ was not reliable and resulted in small fatigue cracks going undetected.	Adequately addressed	The ATSB is satisfied that the action taken by RailCorp to improve the ultrasonic testing procedure addresses this safety issue.	Minor
RO-2011-019 Derailment of freight train 7AD1 at Edith River near Katherine, NT, 27 December 2011			
GWA policies, procedures and training had little if any guidance for employees quantifying the duration, consequential dangers and responses to severe weather events.	Adequately addressed	GWA has proposed new policies/procedures, training and systems to mitigate risk of a similar recurrence.	Minor
The warning systems in place to alert GWA staff as to the severity of a flood event at the Edith River Rail Bridge were ineffective.	Adequately addressed	GWA has proposed new policies/procedures, training and systems to mitigate risk of a similar recurrence.	Minor

Safety actions

Summary of safety actions in 2012–13

SAFETY ACTIONS	AVIATION	MARINE	RAIL	TOTAL
Associated with Significant safety issues				
Pro-active industry action	12	16	4	32
SANS	0	2	0	2
Safety recommendations	2	12	1	15
Associated with Minor safety issues				
Pro-active industry action	31	9	8	48
SANS	0	0	0	0
Safety recommendations	0	0	0	0
Not associated with a safety issue				
SANS	0	0	0	0
Safety recommendations	0	0	0	0
Total	**45**	**39**	**13**	**97**

ATSB recommendations closed in 2012–13

Aviation

Investigation	**AO-2005-001** *Collision with Terrain, 11km NW Lockhart River Aerodrome, 7 May 2005, VH-TFU, SA227-DC (Metro 23)*
Safety issue	CASA did not have a systematic process for determining the relative risk levels of airline operators.
Risk	Significant
Number	AO-2005-001-SR-014 (R20070004)
Organisation	Civil Aviation Safety Authority (CASA)
Recommendation	CASA did not have a systematic process for determining the relative risk levels of airline operators. The ATSB recommends that CASA should address this safety issue.
Released	4 April 2007
Final action date	20 June 2013
Final action	CASA has now issued the updated CASA Surveillance Manual <www.casa.gov.au> and introduced a new IT tool Sky Sentinel. Together they constitute a very comprehensive systematic process for determining the relative risk levels for all Air Operator Certificate holders.

Aviation (continued)

Investigation	**AO-2005-001** *Collision with Terrain, 11km NW Lockhart River Aerodrome, 7 May 2005, VH-TFU, SA227-DC (Metro 23)*
Safety issue	CASA's guidance material provided to operators about the structure and content of an operations manual was not as comprehensive as that provided by ICAO in areas such as multi-crew procedures and stabilised approach criteria.
Risk	Significant
Number	AO-2005-001-SR-015 (R20070006)
Organisation	Civil Aviation Safety Authority (CASA)
Recommendation	CASA's guidance material provided to operators about the structure and content of an operations manual was not as comprehensive as that provided by ICAO in areas such as multi-crew procedures and stabilised approach criteria. The ATSB recommends that CASA should address this safety issue.
Released	4 April 2007
Final action date	17 October 2012
Final action	In August 2012, CASA released the second issue of Civil Aviation Advisory Publication 215, along with 4 appendices, to supersede the 1997 version.

Investigation	**AO-2007-017** *Total power loss—Jundee Aerodrome, WA, 26 June 2007, VH-XUE, Embraer Brasilia*
Safety issue	There was no regulatory requirement for simulator training in Australia.
Risk	Significant
Number	AO-2007-017-SR-084
Organisation	Civil Aviation Safety Authority (CASA)
Recommendation	The ATSB recommends that CASA address this safety issue (there was no regulatory requirement for simulator training in Australia).
Released	8 July 2009
Final action date	27 June 2012
Final action	On 21 May 2012, CASA published a notice of final ruling making that set out comments made by the aviation industry on the 2010 proposals, as well as the final rules. CASA advised that the changes to the simulator-based training requirements will come into effect on 1 April 2013 and encouraged air operators to prepare early for the new rules. In June 2012, CASA announced that the new requirements for the conduct of a range of pilot training and checking exercises in simulators would reduce the risk of aircraft training accidents, improve pilot training and lower aircraft wear and tear. CASA reached this conclusion after analysing the impact of changes to the Civil Aviation Orders in relation to mandatory simulator training.

Aviation (continued)

Investigation	**AO-2008-003** *Electrical system event—25km NNW of Bangkok International Airport, Thailand, 7 January 2008, VH-OJM, Boeing Company 747-438*
Safety issue	The Federal Aviation Administration (FAA) regulations and associated guidance material did not provide detailed liquid protection requirements or guidance for electrical system units in transport category aircraft, increasing the risk of inadequate protection of those units.
Risk	Significant
Organisation	US Federal Aviation Administration (US FAA)
Number	AO-2008-003-SR-109
Recommendation	The ATSB recommends that the US FAA takes safety action to address this safety issue.
Released	13 December 2010
Final action date	02 August 2012
Final action	The FAA understand that the ATSB's concerns are not limited to Electrical Wire Interconnection System (EWIS) components but are directed at all electrical and avionics equipment in a broader sense. The broader concerns are adequately addressed in our current regulations and policy governing both component-level qualification (Technical Standards Orders and guidance material such as DO-160, Environmental Conditions and Test Procedures for Airborne Equipment) and higher-level, aircraft installation requirements (such as 14 CFR 25.1309). In highlighting the FAA's more recent Enhanced Airworthiness Program for Airplane Systems / Fuel Tank Safety (EAPAS/FTS) rulemaking in our previous response, we pointed out that many of those improvements also inherently address non-EWIS components. Enhanced Zonal Analysis, periodic cleaning/inspection, and monitoring of the protective features such as drip shields, are some of the examples of the enhancements which have a positive impact on the conditions in which all electrical and electronic components are installed and operating. In conclusion, our current component-level qualification standards and current 14 CFR Part 25 regulations, with the added requirements of the EAPAS/FTS rule, are adequate with respect to liquid contamination of electrical and electronic components. We will continue to review related guidance material to determine if there are additional developments to further enhance the protection of installed electrical and electronic components. We believe we have effectively addressed the ATSB's concerns and consider our actions complete with regard to FAA Safety Recommendation 10.359.

Marine

Investigation	**MO-2011-004** *Independent investigation into the grounding of the Panama registered bulk carrier* Dumun, *Gladstone, Queensland, 29 April 2011.*
Safety issue	There has not been a comprehensive risk based approach to contingency planning for deep draught bulk carrier operations in Gladstone.
Risk	Significant
Number	MO-2011-004-SR-002
Organisation	Maritime Safety Queensland (MSQ)
Recommendation	The ATSB recommends that MSQ takes further action to address the issue of contingency planning for foreseeable events like the grounding of a deep draught ship as a result of steering gear or man engine failure.
Released	30 July 2012
Final action date	5 February 2013
Final action	MSQ has reviewed its procedures relating to ship readiness for departure. The agency has also considered the use of escort tugs but considers that their use would provide only a marginal risk reduction for a significant cost increase.

Safety recommendations released

Aviation

Investigation	**AO-2010-089** *In-flight uncontained engine failure, overhead Batam Island, Indonesia, 4 November 2010, VH-OQA, Airbus A380-842*
Safety issue	The evolution of the current advisory material relating to the minimisation of hazards resulting from uncontained engine rotor failures was based on service experience, including accident investigation findings. The damage to Airbus A380-842 VH-OQA exceeded the modelling used in the UERF safety analysis and, therefore, represents an opportunity to incorporate any lessons learned from this accident into the advisory material.
Risk	Significant
Number	AO-2010-089-SR-039
Organisation	European Aviation Safety Agency (EASA)
Recommendation	The ATSB recommends that the EASA, in cooperation with the US FAA, review the damage sustained by Airbus A380-842, VH-OQA following the uncontained engine rotor failure overhead Batam Island, Indonesia, to incorporate any lessons learned from this accident into the advisory material.
Released	27 June 2013

Aviation (continued)

Investigation	**AO-2010-089** *In-flight uncontained engine failure, overhead Batam Island, Indonesia, 4 November 2010, VH-OQA, Airbus A380-842*
Safety issue	The evolution of the current advisory material relating to the minimisation of hazards resulting from uncontained engine rotor failures was based on service experience, including accident investigation findings. The damage to Airbus A380-842, VH-OQA exceeded the modelling used in the UERF safety analysis and, therefore, represents an opportunity to incorporate any lessons learned from this accident into the advisory material.
Risk	Significant
Number	AO-2010-089-SR-040
Organisation	US Federal Aviation Administration (US FAA)
Recommendation	The ATSB recommends that the EASA, in cooperation with the US FAA, review the damage sustained by Airbus A380-842, VH-OQA following the uncontained engine rotor failure overhead Batam Island, Indonesia, to incorporate any lessons learned from this accident into the advisory material.
Released	27 June 2013

Marine

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	The safety framework prescribed by successive issues of Marine Orders Part 54 (MO 54) has not assigned the responsibility for the overall management of the safety risks associated with coastal pilotage operations to pilotage providers or any other organisation. This has allowed the following issues to exist: • the 2001 objective of MO 54 to ensure that all pilotage operations are covered by an approved safety management system has not been achieved • the absence of uniform, adequately risk-analysed procedures for the pilotage task and standardised passage plans to allow ship crews to pre-plan passages • pilotage provider safety management systems that only address the risks primarily associated with assigning pilots to ships and pilot transfer operations • the devolution of the responsibility to manage the most safety critical aspects of coastal pilotage to the individual pilots without direct regulatory oversight.
Risk	Significant
Number	MI-2010-011-SR-048
Organisation	Australian Maritime Safety Authority (AMSA)

Marine (continued)

Recommendation	The ATSB recommends that AMSA takes further safety action to address the safety issue by ensuring that the coastal pilotage regulations specifically assign the responsibility for the overall management of the safety risks associated with coastal pilotage operations to the pilotage providers or another organisation. The role, functions, operational and industry responsibilities of any organisation providing a coastal pilotage service should be clearly defined by the provisions of the regulations with a primary focus on the safety of the pilotage service provided.
Released	24/10/2012

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	The coastal pilot training program and ongoing professional development is inadequate. Factors that limit the effectiveness of the training program and ongoing professional development include the: • absence of a pilotage safety management system for trainees to learn standard, risk-analysed pilotage procedures and practices, consistent with best practice • the training program's 'self-learning' approach by observing different systems and practices of pilots that promulgates non-standard systems when trainees develop individual piloting systems increases the potential for sub-optimal practices • bridge resource management training that is not backed up with a focus on systems-based risk management through standard procedures and systems by using all resources, such as the coastal vessel traffic service's capability • absence of coastal pilotage focused bridge simulator training to augment practical shipboard training.
Risk	Significant
Number	MI-2010-011-SR-049
Organisation	Australian Maritime Safety Authority (AMSA)
Recommendation	The ATSB recommends that AMSA takes further safety action to address the safety issue with regard to the acquisition of local area knowledge, particularly in confined areas, and the use of electronic charting systems by pilots. Focused training and assessments in bridge simulators should be amongst the measures used to achieve competency levels appropriate for coastal pilots.
Released	24 October 2012

Marine (continued)

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	The coastal pilot fatigue management plan is inadequate. Factors that limit the effectiveness of the fatigue management plan amongst the 82 pilots surveyed included the: • largely self-managed approach where individual pilots may have conflicting priorities relating to remuneration and other working arrangements • pilot travel and transfer times regularly being included in rest periods • variations in sleep patterns due to irregular working hours and the effect of multiple, consecutive pilotages not being taken into account • dispensations being granted from requirements and, when granting dispensations, the pilot's agreement being used to support the fatigue risk assessment despite a clear conflict of interest with the pilot's remuneration • lack of effective measures to ensure that fatigue during a single-handed pilotage, particularly in the Inner Route, never exceeds an acceptable level • reliance on self-recorded and self-monitored rest periods instead of actual fatigue levels and assessing sleep achieved.
Risk	Significant
Number	MI-2010-011-SR-050
Organisation	Australian Maritime Safety Authority (AMSA)
Recommendation	The ATSB recommends that AMSA takes further safety action to address the safety issue with regard to the high level of fatigue risk involved in single-handed pilotage through the Inner Route of the Great Barrier Reef.
Released	24 October 2012

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	The coastal pilot fatigue management plan is inadequate. Factors that limit the effectiveness of the fatigue management plan amongst the 82 pilots surveyed included the: • largely self-managed approach where individual pilots may have conflicting priorities relating to remuneration and other working arrangements • pilot travel and transfer times regularly being included in rest periods • variations in sleep patterns due to irregular working hours and the effect of multiple, consecutive pilotages not being taken into account • dispensations being granted from requirements and, when granting dispensations, the pilot's agreement being used to support the fatigue risk assessment despite a clear conflict of interest with the pilot's remuneration • lack of effective measures to ensure that fatigue during a single-handed pilotage, particularly in the Inner Route, never exceeds an acceptable level • reliance on self-recorded and self-monitored rest periods instead of actual fatigue levels and assessing sleep achieved.

Marine (continued)

Risk	Significant
Number	MI-2010-011-SR-051
Organisation	Australian Reef Pilots (ARP)
Recommendation	The ATSB recommends that ARP takes further action to facilitate action taken by AMSA to address the safety issue.
Released	24/10/2012

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	Risk identification and mitigation in coastal pilotage operations is inadequate as a result of the under-reporting of risk events and incidents by pilots. Indicators of the inadequacies in risk management and/or under-reporting amongst the 82 pilots surveyed included: • significant under-reporting where the number of grounding or collision risk events claimed by pilots in 2010 was about 10 times the number included in AMSA and pilotage provider incident records • pilots citing reasons for under-reporting being personal disadvantage, lack of corrective action taken, no risk reduction and remuneration risk/ organisational pressure • no process to record and analyse informal reports made by pilots to AMSA.
Risk	Significant
Number	MI-2010-011-SR-052
Organisation	Australian Reef Pilots (ARP)
Recommendation	The ATSB recommends that ARP takes further action to facilitate action taken by the Australian Maritime Safety Authority to address the safety issue.
Released	24 October 2012

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	The coastal pilot fatigue management plan is inadequate.
Risk	Significant
Number	MI-2010-011-SR-053
Organisation	Hydro Pilots (HP)
Recommendation	The ATSB recommends that HP takes safety action to address the safety issue and facilitate action taken by AMSA to address this issue.
Released	24 October 2012

Marine (continued)

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	Risk identification and mitigation in coastal pilotage operations is inadequate as a result of the under-reporting of risk events and incidents by pilots. Indicators of the inadequacies in risk management and/or under-reporting amongst the 82 pilots surveyed included: • significant under-reporting where the number of grounding or collision risk events claimed by pilots in 2010 was about 10 times the number included in AMSA and pilotage provider incident records • pilots citing reasons for under-reporting being personal disadvantage, lack of corrective action taken, no risk reduction and remuneration risk/ organisational pressure • no process to record and analyse informal reports made by pilots to AMSA.
Risk	Significant
Number	MI-2010-011-SR-054
Organisation	Hydro Pilots (HP)
Recommendation	The ATSB recommends that HP takes safety action to address the safety issue and facilitate action taken by AMSA to address this issue.
Released	24 October 2012

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	The coastal pilot fatigue management plan is inadequate. Factors that limit the effectiveness of the fatigue management plan amongst the 82 pilots surveyed included the: • largely self-managed approach where individual pilots may have conflicting priorities relating to remuneration and other working arrangements • pilot travel and transfer times regularly being included in rest periods • variations in sleep patterns due to irregular working hours and the effect of multiple, consecutive pilotages not being taken into account • dispensations being granted from requirements and, when granting dispensations, the pilot's agreement being used to support the fatigue risk assessment despite a clear conflict of interest with the pilot's remuneration • lack of effective measures to ensure that fatigue during a single-handed pilotage, particularly in the Inner Route, never exceeds an acceptable level • reliance on self-recorded and self-monitored rest periods instead of actual fatigue levels and assessing sleep achieved.
Risk	Significant
Number	MI-2010-011-SR-055
Organisation	Torres Pilots (TP)

Marine (continued)

Recommendation	The ATSB recommends that TP takes safety action to address the safety issue and facilitate action taken by AMSA to address this issue.
Released	24 October 2012

Investigation	**MI-2010-011** *Independent investigation into Queensland Coastal Pilotage operations*
Safety issue	Risk identification and mitigation in coastal pilotage operations is inadequate as a result of the under-reporting of risk events and incidents by pilots. Indicators of the inadequacies in risk management and/or under-reporting amongst the 82 pilots surveyed included: • significant under-reporting where the number of grounding or collision risk events claimed by pilots in 2010 was about 10 times the number included in AMSA and pilotage provider incident records • pilots citing reasons for under-reporting being personal disadvantage, lack of corrective action taken, no risk reduction and remuneration risk/ organisational pressure • no process to record and analyse informal reports made by pilots to AMSA.
Risk	Significant
Number	MI-2010-011-SR-056
Organisation	Torres Pilots (TP)
Recommendation	The ATSB recommends that TP takes safety action to address the safety issue and facilitate action taken by AMSA to address this issue.
Released	24/10/2012

Investigation	**MO-2011-004** *Independent investigation into the grounding of the Panama registered bulk carrier* Dumun*, Gladstone, Queensland, 29 April 2011.*
Safety issue	There has not been a comprehensive risk based approach to contingency planning for deep draught bulk carrier operations in Gladstone.
Risk	Significant
Number	MO-2011-004-SR-002
Organisation	Maritime Safety Queensland (MSQ)
Recommendation	The ATSB recommends that MSQ takes further action to address the issue of contingency planning for foreseeable events like the grounding of a deep draught ship as a result of steering gear or man engine failure.
Released	30 July 2012
Final action date	5 February 2013
Final action	MSQ has reviewed its procedures relating to ship readiness for departure. The agency has also considered the use of escort tugs but considers that their use would provide only a marginal risk reduction for a significant cost increase.

Marine (continued)

Investigation	**MO-2012-001** *Independent investigation into the foundering of the Panama registered general cargo ship* Tycoon, *Christmas Island, 8 January 2012*
Safety issue	A risk assessment for mooring a ship at the inner moorings had never been undertaken. As a result, the risks associated with leaving a ship at the inner moorings overnight during the swell season were not properly identified and strategies to minimise those risks were not implemented.
Risk	Significant
Number	MO-2012-001-SR-011
Organisation	Patrick Ports
Recommendation	The ATSB recognises that the actions taken by Patrick are a step in the process of effectively assessing the risks posed to the port and its operations. However, the ATSB recommends that Patrick takes further action to carry through with its intent to address this safety issue.
Released	23 May 2013

Investigation	**MO-2012-010** *Stevedore fatality on board the general cargo ship* Weaver Arrow, *Newcastle, New South Wales, 23 September 2012*
Safety issue	The stevedoring company had not identified stevedore fatigue as a risk to the company or its operations and, as a result, had not implemented a system to manage fatigue. Consequently, its operations were exposed to a level of fatigue-related risk that had not been assessed and treated.
Risk	Significant
Number	MO-2012-010-SR-009
Organisation	Newcastle Stevedores (NS)
Recommendation	The ATSB recommends that NS takes further action to address the issue concerning stevedore fatigue in its operations.
Released	4 June 2013

Rail

Investigation	**RO-2013-005** *Collision between suburban passenger train and platform, Cleveland, QLD, 31 January 2013*
Safety issue	Queensland Rail's risk management procedures did not sufficiently mitigate risk to the safe operation of trains in circumstances when local environmental conditions result in contaminated rail running surfaces and reduced wheel/rail adhesion.
Risk	Significant
Number	RO-2013-005-SR-001
Organisation	Queensland Rail (QR)

Rail (continued)

Recommendation	The ATSB recommends that QR takes action to mitigate risk to the safe operation of its trains in circumstances when local environmental conditions result in contaminated rail running surfaces and reduced wheel/rail adhesion.
Released	13 March 2013

Safety advisory notices released

Marine

Investigation	**MO-2012-010** *Stevedore fatality on board the general cargo ship* Weaver Arrow, *Newcastle, New South Wales, 23 September 2012*
Safety issue	The stevedoring company had not identified stevedore fatigue as a risk to the company or its operations and, as a result, had not implemented a system to manage fatigue. Consequently, its operations were exposed to a level of fatigue-related risk that had not been assessed and treated.
Risk	Significant
Number	MO-2012-010-SAN-008
Organisations	Stevedoring companies
Safety advisory notice	The ATSB advises that all stevedoring companies should consider having a system to effectively manage stevedore fatigue to reduce safety risk in their operations.
Released	4 June 2013

Investigation	**MO-2012-010** *Stevedore fatality on board the general cargo ship* Weaver Arrow, *Newcastle, New South Wales, 23 September 2012*
Safety issue	While the risk of aluminium ingot stacks toppling over had been identified by the stevedoring company as a result of past incidents, its procedure for loading aluminium products had not evolved to adequately address this risk. Furthermore, the implementation of basic precautions such as using ladders to climb between ingot tiers was not effectively monitored or enforced.
Risk	Significant
Number	MO-2012-010-SAN-010
Organisations	Stevedoring companies
Safety advisory notice	The ATSB advises that all stevedoring companies should consider the risk of aluminium ingot stacks and similar break-bulk cargoes toppling over during handling.
Released	4 June 2013

Section 7

Feature–Aviation trend monitoring

This section describes how the ATSB analyses the statistics it gathers and reports on the trends that it identifies. The ATSB has continued a quarterly trend monitoring program reporting to the ATSB Commission. In 2012–13, the ATSB began distributing these quarterly reports to airlines, CASA, Airservices Australia, DDAAFS, and sport aviation administration bodies. This is an important and beneficial service to our stakeholders.

The aim of aviation trend monitoring is to observe the health of aviation across Australia through a routine and systematic analysis of all reported occurrence data. Rather than looking for specific issues, the process is data-driven, looking at everything in the database to see if there are subtle changes that may point to a larger issue. In this way, potential issues can be monitored by the ATSB, other agencies including CASA and Airservices Australia, and industry bodies, so that there is early identification of their potential to evolve into a significant and/or systemic problem.

The flagging of these potential issues may point to the need for action by the ATSB, such as targeting specific types of occurrences for investigation or initiating a broader systemic investigation of a particular transport safety matter.

Every three months, ATSB research analysts process the occurrence data, looking for increasing or decreasing trends in types of occurrences (there is a taxonomy of about 120 occurrence types, such as wirestrike, hard landing, depressurisation, stall warning, loss of separation, power loss, bird strike etc). This is done separately for three types of aircraft operations: high-capacity operations, low-capacity commercial air transport—including both regular public transport and charter operations—and general aviation. A summary of recreational and sport aviation occurrences is also provided as the lower number of reported occurrences does not allow trend monitoring.

Simple counts of those occurrence types with large differences between consecutive periods are not used as this would highlight only the more frequently reported occurrences (which also tend to be those with the lowest inherent risk). Rather, for each occurrence type and operation type, researchers compare the count of occurrences and the rate per 100,000 departures for the most recent period (the previous three, six, and twelve months) to the mean for the last five years in order to establish a historical baseline. The comparison is made in units of standard deviation from the five year period.

If the number of occurrences for the current reporting period is more than 1.28 standard deviations from the historical mean of the last five years, it is deemed to be significantly different from normal and a basic alert is generated. At this point, there is only a 10 per cent chance that the observation is due to chance alone. At 2 standard deviations from the historical mean, the chance of error is only 2.5 per cent, and a higher alert is generated.

When an occurrence type is greater than 1.28 or 2 standard deviations, it raises an alert for follow-up. Further analysis can show which aircraft models, operators, locations, etc. account for most of the difference, and whether this has been a long-term trend or a recent ‘blip’.

When a single operator accounts for most of the difference, the ATSB approaches it with information about the trend to ascertain whether it is aware and so that it can provide any obvious explanation. Sometimes increases are solely due to better reporting (by a single

operator or across the industry), sometimes because of changes to operations, aircraft, or regulations, and sometimes there is no apparent explanation.

For each significant alert, ATSB investigation managers assign actions to provide a follow-up or review of why that alert occurred. These actions are:

- monitoring the following reporting period to see whether the increase is sustained (sometimes involving the monitoring of new occurrences of this type to provide the opportunity to gather more information)
- contacting operator or industry participants to provide them with some information on ATSB-identified trends that affect their aircraft or operations
- reporting to CASA and/or Airservices Australia for input into their surveillance and other safety monitoring processes
- targeting occurrences for new investigations (normally short factual-only investigations) on the basis that the trend may be exhibiting a safety issue
- initiating an ATSB research/safety issue investigation on the basis that specific reasons for the trend are suspected or known.

The aviation trend monitoring process has already led to the initiation of two ATSB research investigations, one looking at the loss of separation incidents, the other looking at the reliability of light aircraft engines. The results of the process have also led to the initiation of some short occurrence investigations (such as fume events).

Event risk classification development

The ATSB is nearing completion of its development of an automated event risk classification (ERC) system. This system assigns a risk to every aviation occurrence reported to the ATSB, based on the type of operation and type of occurrence. Through a series of rules that depend on data coded by the ATSB for each occurrence, this system rates both the worst credible accident outcome for the occurrence (in terms of injuries to people and then aircraft damage), and the effectiveness of the remaining defences or barrier between the actual occurrence and the rated worst credible accident outcome. The process ends with a single risk score and level for every occurrence.

The ATSB's ERC is based on *Aviation Risk Management Solutions* (ARMS)[2] methodology which was primarily developed for airlines. As the ATSB deals with all levels of aviation from single-seat aircraft to very large airliners, the risk matrices recommended in the ARMS methodology were extended to account for this variation in the number of potential injuries between aircraft types and operations.

2 ARMS is a non-political, non-profit working group, with a mission to produce a good Risk Assessment methodology for the industry. The results are freely available to the whole industry and to anyone else interested in the concept. This international working group consisted mainly of safety practitioners from airlines to ensure that the proposed methodology is applicable to the real-life setting of an airline or other aviation organisation. See the report *The ARMS Methodology for Operational Risk Assessment in Aviation Organisations* (version 4.1, March 2010)

Automation rules have been written for the majority of occurrence types, accounting for over 80 per cent of occurrences reported to the ATSB each year. The ATSB has used 2012–13 to test the robustness of the event risk data and to refine the automation rules where needed. In 2013–14, the ERC will be implemented into the ATSB's aviation occurrence database, allowing individual occurrences to be manually risk rated when the complexity of occurrence cannot be covered by the automation rules.

The event risk ratings are used in a number of ways. In 2012–13, event risk details have been provided to managers for every immediately reportable matter and all notable routine reportable matters twice a day to assist in the decisions whether to initiate an investigation. Although many other details need to be considered, including available resources and the probable safety benefit of conducting an investigation, the event risk can be used as a reality check for deciding whether or not to investigate. That is, if an early decision is taken not to investigate an occurrence, but the risk rating for that occurrence is high or very high, then the decision may be reconsidered.

Event risk ratings are also used for research and analysis. This is done by summing the event risk scores and then looking at relative differences (across time, locations, types of operations, etc). The ATSB's quarterly aviation trend monitoring program now uses event risk sum to observe relative changes in risk across time for individual occurrence and operation types. This may show that although the number of occurrences is stable, the risk is increasing; or that although the number of occurrences is increasing, it is only the low risk occurrences that are increasing, suggesting the trend is probably mostly due to better reporting. Ratings have also been used in research investigations that will be published in 2013–14. In particular, they have been used for analyses of loss of separation occurrences to show which airports pose the greatest risk by taking into account the number of occurrences, the potential risk of a collision between aircraft in each occurrence, and the size of the aircraft involved in each occurrence. For example, assessing birdstrike data by airport has shown that the highest risk locations do not always match with the airports with the most birdstrikes, since some other locations have more birdstrikes that involve larger birds and/or multiple birds which pose high risks.

Section 8

Feature–Focus on National Transport Reforms

The ATSB is working with the Department of Infrastructure and Transport to contribute to COAG's regulatory reform agenda to improve the efficiency, safety, sustainability and competitiveness of the rail and marine industries.

On 20 January 2013, the ATSB became the national, 'no blame' safety investigator for rail in the participating states of New South Wales, Victoria, South Australia, Tasmania and the Northern Territory. The remaining states of Queensland and Western Australia, have indicated that they will be likely to participate in late 2013 or early 2014. Previously, investigation coverage had been fragmented and incomplete with only the Commonwealth, New South Wales and Victorian governments routinely investigating serious accidents and incidents from an independent, 'no blame' point of view.

An expanded, 'no blame' national investigator delivers many recognisable benefits. These are:

- primarily improved safety outcomes
- a better allocation of national investigative resources based on relative need and informed by analysis of national occurrence information
- uniform processes applied across jurisdictional boundaries
- increased investigative capacity
- improved career paths and skill levels for all transport safety investigators.

The increased investigative capability from 2013 sees the ATSB covering a broader range of rail incidents across a number of new operating environments. For the first time in rail, the ATSB will be investigating rail accidents and incidents beyond the Defined Interstate Rail Network (DIRN) and will be responsible for investigations on the highly sensitive metropolitan passenger networks.

In maritime, the expansion in regulatory coverage of commercial vessel operations by the Australian Maritime Safety Authority (AMSA) leads the way for the ATSB to complete the package and to expand to its full jurisdictional coverage of corporately owned craft in the commercial vessel sector, rather than restrict its focus to Safety of Life at Sea (SOLAS) Convention ships and those engaged in international and interstate voyages.

Implementation of the National Safety Investigation Reforms

The main objective of the National Safety Investigation Reform program was to deliver against the COAG commitment for reforms in the Australian transport sector by positioning the Australian Transport Safety Bureau as the national, 'no blame' safety investigator for rail from 1 January 2013 and endeavouring to achieve the same outcome for maritime operations during the course of 2013.

The safety of Australia's rail system has historically been managed by different state-based regulators and operators under different laws. There has only been a restricted capacity for independent, no-blame safety investigation. An integrated national transport safety framework will ensure a consistent, efficient and coordinated approach to rail safety in Australia and, for the first time, the national operation of a single law for rail safety investigations.

Along with a national regulator for rail operators, a national investigator is a key component of an integrated transport safety system. While a regulator concentrates on assuring safety compliance and an operator manages safety risk, a national investigator reviews the overall safety system for deficiencies and recommends improvements.

Council of Australian Governments agreement

In 2008, the Council of Australian Governments (COAG) agreed to implement a suite of regulation and competition reforms under the National Partnership Agreement to Deliver a Seamless National Economy. As part of broad national transport regulation reforms, in December 2009 COAG agreed to establish a national rail safety regulator to modernise Australia's rail safety regulatory system. The regulator is administering a single national Act that encompasses all aspects of rail safety including operations, equipment standards, hours of work, fatigue and worker health. COAG further agreed to extend the ATSB's role to operate as an enhanced national rail safety investigator covering rail incidents across Australia.

On 19 August 2011, COAG agreed to the Intergovernmental Agreement (IGA) on Rail Safety Regulation and Investigation Reform, which formalised the agreement between the Australian Government and state and territory governments to establish a National Rail Safety Regulator (NRSR) and to expand the ATSB's role to conduct rail safety investigations nationally from 20 January 2013.

External governance

To progress nationally significant reforms, COAG delegated responsibility for the transport reforms to the Standing Council on Transport and Infrastructure (SCOTI) (formerly known as the Australian Transport Council), comprising Commonwealth, state and territory Ministers with responsibility for transport and infrastructure issues, and the Australian Local Government Association. SCOTI is assisted by the Transport and Infrastructure Senior Officials' Committee (TISOC).

SCOTI established the Rail Safety Regulation Reform Project Board (the Project Board) to oversee the national rail safety regulator and investigator reforms. The Project Board comprised Commonwealth and jurisdictional representatives, as a decision-making body to approve the changes needed for the ATSB to become the national rail safety investigator where those changes relate to governments outside the Commonwealth. The ATSB raised issues relating to the jurisdictions with, and provided regular progress reports to, the Project Board.

Internal governance and oversight

The ATSB established a program of work known as the National Safety Investigation Reform Program to progress the changes required to implement the reforms. A Program Manager managed a small team of officers, reporting to a Program Board comprised of the ATSB Executive and the Manager Governance, which provided oversight of the program. A program plan, based on the principles of PRINCE2® and Managing Successful Programmes®, provided a roadmap of implementation milestones and high level goals. Project Managers from across the organisation led a number of interrelated projects, with organisation-wide staff contributions to achieve all performance milestones in accordance with the COAG IGA.

Implementation program performance

The National Safety Investigation Reforms have delivered important contributions to many elements of the ATSB's strategic direction.

Building capability and effectiveness

Safety investigations

The ATSB estimated its new rail safety investigation workload from 2013 onwards. It successfully recruited, trained and equipped current and a number of newly employed investigators to meet this new workload from 20 January 2013.

The ATSB also revised its policies and procedures and work level standards. Significant change to the former included harmonising practices across modes, providing for collaboration with the ATSB's state counterparts, the direct receipt of Category A rail occurrence notifications, and the introduction of a multi-modal roster for out-of-hours notifications.

Safety data

From 20 January 2013, a national, multi-modal voluntary and confidential reporting scheme (REPCON) began operation. The ATSB upgraded the REPCON database to store rail reports and issued communication materials to alert potential users to the scheme.

Strengthening stakeholder relationships

The ATSB has entered into a memorandum of understanding with the Office of the National Rail Safety Regulator (ONRSR) to facilitate cooperation in areas of mutual interest. The MOU replaces seven previous MOUs with former state and territory regulators. The ATSB has also strengthened its relationship with a range of rail safety stakeholders, including state investigation agencies, state and territory transport departments, rail peak bodies and operators and the Rail, Tram and Bus Union.

Commitment to safety research, education and communication

The ATSB's safety education and communication role grew from 2013, with the concomitant growth of the ATSB's rail safety audience. The ATSB produced communications material related to mandatory reporting, voluntary and confidential reporting (REPCON) and the ATSB's expanded rail safety investigation function. Internal and external stakeholders were kept informed and advised of the implications of the reform via a communications plan which included representation at the 2012 AusRAIL Conference in Canberra.

Active participation in the transport reform agenda

The ATSB successfully delivered a large number of outputs in support of the transport reform agenda, including:

- changes to the *Transport Safety Investigation Act 2003*, which came into effect on 20 January 2013
- a national system of mandatory reporting and industry awareness of changed reporting requirements
- a collaboration Agreement with the ATSB's state counterparts, the Office of Transport Safety Investigations in New South Wales and the Chief Investigator, Transport Safety in Victoria, to make their resources available to the ATSB for rail safety investigations under the *Transport Safety Investigation Act 2003* (TSI Act)
- a transition plan to increase ATSB capacity to undertake national investigations.

Contributions from stakeholders

The ATSB's new mandate was achieved in consultation with officials from governments in six states and the Northern Territory. The ATSB would like to acknowledge the contributions of officials to the creation of the national rail safety investigator.

Where appropriate, the ATSB also liaised with representatives of the Australasian Railway Association, the Association of Tourist and Heritage Rail Australia and the Rail, Tram and Bus Union.

Further progressing the National Safety Investigation Reforms

COAG agreed that states without investigation agencies will pay the full cost of ATSB investigatory services in their jurisdiction from 20 January 2013. The investigation charging arrangements have not been finalised in all states. The ATSB has secured agreement in Tasmania and is still negotiating arrangements with the other states to charging for investigations, but has yet to secure agreement in South Australia, Western Australia and Queensland.

Maritime

On 1 July 2013, the Australian Maritime Safety Authority (AMSA) started operations as the national maritime safety regulator for all commercial vessels in Australian waters, implementing a COAG agreement on maritime safety to establish national transport regulators by 2013.

The ATSB secured agreement from Transport Ministers in November 2012 to collaborate with existing state investigation agencies in New South Wales and Victoria to conduct more maritime safety investigations under the TSI Act.

This reform should enable more efficient and effective use of existing maritime investigatory resources, and provide enhanced investigatory capacity (including the investigation of serious maritime safety matters which are not currently independently investigated).

Section 9

Management and accountability

The Commission

The ATSB is governed by a Commission, comprising a Chief Commissioner and two part-time Commissioners. The Commission has endorsed an ATSB Commission Governance Manual that outlines its function, administrative practices and procedures and accountability mechanisms. The Commission meets at least quarterly and regularly deals electronically with business in accordance with its obligations under the TSI Act and its agreed policies.

During 2012–13, the Commission met on four occasions. All Commissioners participated in all meetings. Commissioners also attended the annual planning workshop held with senior management.

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 Team to assist him determine the ATSB's policies and priorities and providing effective leadership and oversight. The Executive meets weekly and comprises the Chief Commissioner and the three General Managers.

The Chief Commissioner has also established a Workplace Health and Safety Committee, a Professional Committee and an Audit Committee.

The Work Health and Safety (WHS) Committee has been established consistent with the obligations under the *Work Health and Safety Act 2011* (WHS Act). The Committee has ten elected Health and Safety Representatives that met on nine occasions during 2012–13. The focus this year has been on greater staff engagement and risk management. The Committee continues to report to the ATSB Commission and Executive on a quarterly basis.

The Professional Committee is represented by 11 elected staff members who met on six occasions during 2012–2013. In January 2013, the Committee revised its Charter, resulting in a more defined role, established to:

- provide a forum for professional development, business improvement and related issues to be raised and discussed
- consider and develop recommendations to the Executive, including proposals from employees or improving the ATSB workplace
- explore opportunities for continuous improvement of our business processes, policies and procedures
- foster innovation and consistency in how the ATSB carries out its business.

Audit Committee

The Audit Committee provides independent assurance and advice to the Chief Commissioner on the ATSB's risk, control and compliance framework, as well as its external accountabilities.

The Audit Committee comprises an independent chair, an independent member and a management nominee. The committee met four times during 2012–13—in September 2012, December 2012, March 2013 and June 2013.

The main work of the Committee during the year was to oversee and advise on:

- the Annual Internal Audit Program for 2012–13
- operation of the ATSB's Risk Management, Fraud Control and Business Continuity Plans
- preparation of ATSB's Financial Statements
- the effectiveness of the internal audit governance framework; including Audit Committee Charter, Internal Audit Charter and Internal Audit Strategic Plan 2011–14.

The audit program for 2012–13 continued to focus on assuring the existence and conformance of the financial management control framework. There is also an increasing emphasis on assuring the performance of the ATSB's core functions. The program included internal audits of:

- protective security policy framework (PSPF) compliance
- attendance and leave
- review of payroll system
- Freedom of Information
- governance framework/planning and reporting
- National Safety Investigation Reform (NSIR) project assurance
- credit cards.

Business planning and reporting

The ATSB develops and publishes an Annual Plan. The Annual Plan for 2012–13 gave priority to:

- safety communication and education
- active participation in the transport reform agenda
- improved efficiency, effectiveness and timeliness of investigations
- strengthening stakeholder relationships
- sharing safety information
- focussed safety research and data analysis
- regional and international engagement
- building capability
- preparedness for a major accident.

The Annual Plan was developed having regard to the Minister for Infrastructure and Transport's Statement of Expectations and the corresponding ATSB Statement of Intent.

The Annual Plan incorporates the deliverables and key performance indicators outlined for the ATSB in the Portfolio Budget Statements. Performance against the Annual Plan is reported elsewhere within this Annual Report.

Risk management

Consistent with obligations under the *Financial Management and Accountability Act 1997*, CEOs are expected to develop and implement Risk Management Plans. Better practice guidance issued by the Australian Public Service Commission (APSC), Comcover and the Australian National Audit Office (ANAO) encourages the integration of risk management as part of the governance, planning and management framework for agencies.

The ATSB Risk Register and Management Plan and Risk Policy are reviewed regularly by the Commission and the Executive. Risk focus at the enterprise level during 2012–13 has been in the areas of:

- growth and change
- resourcing and capability
- reputation.

The Commission receives risk management progress reports at its quarterly meetings, including on progress with implementing risk mitigation activities. Implementation of the Risk Management Plan is also a standing agenda item for the Audit Committee. Risk assessment and mitigation has been established as an integral part of business planning and performance reporting, at both corporate and business unit levels.

Business Continuity Plan

During 2012–13, the ATSB has implemented the outcomes of a review of its Business Continuity Plan, which was finalised in March 2012.

The Business Continuity Plan provides a framework to ensure business continuity and recovery processes are documented, understood and regularly tested. The focus of testing during the year has been in relation to disaster recovery and the remediation of information technology infrastructure in such a scenario. The Audit Committee reviews the operation of the Business Continuity Plan on a regular basis.

Fraud control

The ATSB Fraud Control Plan was last reviewed in April 2012. The ATSB continues to monitor its fraud risk register and to implement its fraud control plan actions. Fraud control is a regular agenda item for the ATSB's induction programs for new officers.

The Audit Committee receives regular reports on the implementation of fraud control initiatives. The ATSB's whistle-blower policies have been revised to reflect changes to the *Public Service Act 1999*, which took effect from 1 July 2013.

There have been no allegations or instances of fraud reported within the ATSB.

Ethical standards

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

- highlighting the APS Values and Code of Conduct in all selection criteria and recruitment processes for all ATSB positions
- including briefing information on the APS Values and Code of Conduct in induction packages and training sessions
- promoting 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 APSC's website
- reviewing selection procedures, as provided for in section 33 of the *Public Service Act 1999,* being made available to aggrieved employees as necessary
- ensuring that policies on issues such as fraud control and whistle-blowing include requirements that any complaints or actions must be dealt with in accordance with the Values and Code of Conduct and must afford natural justice.

Management of human resources

The ATSB's Organisational Development team has dedicated the past year to a number of planned activities associated with the ongoing support of the National Safety Investigation Reform agenda, promoting transport safety awareness and continued internal capability building. Key human capital projects that were delivered over this period include:

- consolidation and benchmarking of the staff census results
- greater focus on workplace diversity with the implementation of our new Agency Multicultural Plan
- establishment of Timekeeper (an electronic system for recording flex-time)
- establishment of a new payroll provider—contract for services
- embedding the 2013 Public Service Act amendments
- continuous improvement measures associated with the existing Work Health and Safety framework
- introduction of several new employment related procedures
- close management and monitoring of our strategic workforce plan.

Through the completion of these activities and projects the Organisational Development team has been well positioned to address its associated business risks, in particular any adverse impacts to the existing organisational culture due to a changing environment and focus.

Staffing profile

In accordance with our workforce planning projections, the ATSB has decreased its staffing profile from 123 at the start of July 2012 to 116 by the end of June 2013. This decrease takes into account several non-ongoing employees that were engaged under the National Safety Investigation Reform agenda. The end of June 2013 figure of 116 does not include two current ongoing vacancies and therefore the average staffing level is better reflected as 118 FTE. Table 5 displays the ATSB staff numbers, by classification, at 30 June 2013.

Table 5: ATSB staffing profile at 30 June 2013

SUBSTANTIVE CLASSIFICATION	FEMALE (FULL TIME)	FEMALE (PART TIME)	MALE (FULL TIME)	MALE (PART TIME)	NON-ONGOING	TOTAL
Statutory Office Holders		1	1	1		3
Senior Executive Service (SES) Band 1			2			2
EL 2	4	1	54			59
EL 1	6	1	21			28
APS 6	5		4	1	2	12
APS 5	7	1	3			11
APS 4	1					1
Total	**23**	**4**	**85**	**2**		**116**

This total is comprised of the following employment arrangements:

- 111 staff (representing all non-SES employees) covered by the Enterprise Agreement
- two SES employees covered by section 24(1) determinations
- three Statutory Office Holders (representing the Commissioners) covered through the Remuneration Tribunal.

There are no other employment arrangements in place which include provision for performance pay.

The ATSB staff turnover rate has risen from 8.9 to 13 per cent.

Salary rates

Table 6 displays the salary rates supporting the above employment arrangements, at 30 June 2013.

Table 6: ATSB salary rates at 30 June 2013

SUBSTANTIVE CLASSIFICATION	LOWER ($)	UPPER ($)
Statutory Office Holders	As determined through the Remuneration Tribunal	
SES 1	167,762	194,041
EL 2	108,424	133,260*
EL 1	91,237	105,244*
APS 6	72,576	84,692*
APS 5	65,664	70,901
APS 4	58,818	63,915

* Maximums include Transport Safety Investigator and respective supervisor's salaries, representing a $1,860–$9,508 increase on standard APS 6–EL 2 rates.

Organisational culture

As demonstrated by our organisational wellbeing indicators derived from the 2012 staff census results, a large majority of ATSB staff continue to feel well supported in their roles, demonstrate a sense of pride in their organisation and a strong willingness to put in the extra effort to get the job done. Key indicators include:

- *My job gives me opportunities to utilise my skills, knowledge and experience* —85 per cent positive
- *Employees in my agency feel they are valued for their contribution*—80 per cent positive
- *I am willing to put in the extra effort to get the job done*—98 per cent positive
- *I would recommend my agency as a good place to work*—86 per cent positive
- *I am proud to work in my agency*—85 per cent positive.

With these positive results acknowledged, there were a number of less favourable results associated with career advancement, remuneration and managing poor performance that will need to be carefully analysed and reviewed over 2013–14. Key indicators include:

- *I am satisfied with the opportunities for career progression in my agency* —45 per cent positive
- *I am fairly remunerated (e.g. salary, superannuation) for the work that I do* —61 per cent positive
- *My supervisor appropriately deals with employees that perform poorly*—52 per cent positive.

In keeping with our formal commitment to acknowledge those individuals who have dedicated themselves to extended periods of service, there were 2 x 20 year, 5 x 15 year and 5 x 10 year service awards presented over 2012–13.

Training and development

As a Registered Training Organisation, the ATSB awarded an additional three Transport Safety Investigation Diplomas in 2012–13. At the same time the ATSB has continued to provide training opportunities for a broad range of industry based personnel through its highly regarded Human Factors and Aircraft Accident Investigation Fundamentals courses.

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 approximately 10 per cent of staff engaging in higher level tertiary pursuits. Areas of study included:

- Certificate IV in Training and Assessment
- Bachelor of Arts (Professional writing and publishing)
- Bachelor of Aviation Management
- Post graduate research studies
- Master of Business Administration
- Master of Investigation Management.

The ATSB has also continued to develop and deliver a blended range of corporate and public service learning requirements.

Assets management

As at 30 June 2013 the ATSB had assets with a book value of $3.710 m. This included specialised computer equipment and software units such as teleconferencing units, air traffic control and aircraft data recorder equipment, electron and optical microscopes and other specialised technical equipment used in investigations.

The largest single asset is the ATSB Safety Investigation Information Management System (SIIMS), which provides an integrated view of transport safety notifications, occurrences, investigations, research, analysis and safety actions and establishes the definitive record of each investigation. This system was enhanced during the year to include tools for planning and effective project management.

ATSB Technical Analysis maintains a program of continuous review and improvement to ensure that functional equipment supports its skilled staff and contemporary knowledge. During 2012–13 we invested in enhanced site documentation and imaging equipment (wide area laser scanner and GigPan camera platform), as well as replacement for an ageing optical microscope and enhancements to the solid-state data recovery facility.

Purchasing

ATSB purchases goods and services in accordance with the Commonwealth Procurement Rules. These rules are applied through the Chief Executive's Instructions (CEIs). The ATSB's procurement policies and processes have been developed to ensure that:

- it undertakes competitive, non-discriminatory procurements
- uses resources efficiently, effectively, economically and ethically
- makes all procurement decisions in an accountable and transparent manner.

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 amounts are inclusive of GST.

The expenditure on legal services for 2012–13 was $279,692.97. This comprised:

- $3,029.95 on external legal services
- $276,663.02 on internal legal services.

Consultants

The ATSB engages consultants where it lacks specialist expertise or when independent research, review or assessment is required. Consultants are typically engaged to:

- investigate or diagnose a defined issue or problem
- carry out defined reviews or evaluations, or
- provide independent advice, information or creative solutions to assist in the ATSB's decision making.

Before engaging consultants, the ATSB takes into account the skills and resources required for the task, the skills available internally, and the cost-effectiveness of engaging external expertise. The decision to engage a consultant is made in accordance with the FMA Act and related regulations including the Commonwealth Procurement Rules (CPRs) and relevant internal policies.

During 2012–13, 14 new consultancy contracts were entered into involving total actual expenditure of $0.216 m. In addition, one ongoing consultancy contract was active during the 2012–13 year, involving total actual expenditure of $0.011 m.

Exempt contracts

No contracts were exempted from publication through AusTender on public interest grounds during 2012–13.

External scrutiny and participation

Response to Senate Inquiry

On 13 September 2012 the Senate referred the matter of aviation accident investigations to the Senate References Committee on Rural and Regional Affairs and Transport for inquiry and report. The terms of reference addressed:

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

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

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

d) any related matters.

On 23 May 2013, the committee presented its report. The committee's report contained 26 recommendations, a number of which were directed towards the ATSB. The report included additional comments from Senator Nick Xenophon, including an extra recommendation.

Under Parliamentary convention, governments are expected to respond to committee reports within three months. However, the Caretaker Conventions stipulate that responses to outstanding parliamentary committee reports should be taken up with the incoming government.

Coronial inquests

In 2012–13, findings were handed down in three coronial inquests involving matters that related to ATSB investigations. Where the ATSB provided evidence it was given in a manner consistent with the ATSB's functions under the TSI Act. Findings in a fourth inquest the ATSB participated in, Roulston and Kean (ATSB investigation AO-2008-010) were due in 2013-14 and will be included in next year's annual report.

Ethell and Gaur (ATSB Investigation AO-2008-081)

On 2 May 2013 Deputy State Coroner Paul MacMahon of New South Wales handed down his findings into an accident involving a mid-air collision between a Cessna 152 with the registration VH-FMG and a Liberty Aerospace XL-2 with the registration VH-XLY. Two people on board the Cessna were fatally injured in the collision that occurred on 18 December 2008 near Casula in New South Wales.

The ATSB released its investigation findings on 12 July 2011. The ATSB's website has been updated to make note of the inquest findings and relevant safety issues at: www.atsb.gov.au/publications/investigation_reports/2008/aair/ao-2008-081.aspx

Mundell (ATSB Investigation AO-2012-133)

On 4 June 2013 Kununurra District Coroner Jane Donna Webb of Western Australia handed down her findings into an aviation accident involving a collision with terrain by a Robinson R22 helicopter with the registration VH-LLF. One person was fatally injured in the collision that occurred on 3 October 2012 approximately 130 km west of Halls Creek, Western Australia.

The ATSB released its investigation findings on 22 March 2013. The ATSB's website has been updated to make note of the inquest findings and relevant safety issues at: www.atsb.gov.au/publications/investigation_reports/2012/aair/ao-2012-133.aspx

Hender (Not subject to ATSB investigation)

On 5 June 2013 Coroner Hendtlass of Victoria handed down her findings into an accident involving a Glassair Amateur-Built Experimental Aircraft with the registration VH-IDF. Two persons were fatally injured in the accident that occurred on 12 March 2006 at the Mildura Aerodrome in Victoria. In accordance with its policy at the time concerning ABE aircraft, the ATSB did not investigate the accident.

In her findings, the Coroner issued a recommendation to the ATSB that it review its policy concerning the investigation of ABE aircraft. The ATSB had been separately pursuing a review of this policy in conjunction with the release of the second part of its research report on Amateur Built Aircraft released in March 2013 (see: www.atsb.gov.au/publications/2007/ar-2007-043(2).aspx). The ATSB's current policy is to investigate all accidents that result in a fatality involving an ABE aircraft on the civil register.

International participation

In 2012–13 the ATSB actively participated in a number of forums relating to the International Civil Aviation Organization (ICAO), and the International Maritime Organization (IMO).

SIPTF

An ATSB representative is on the ICAO Safety Information Protection Taskforce (SIPTF) that is reviewing ICAO standards, recommended practices and guidance material affecting the disclosure and use of safety information for purposes such as judicial and administrative proceedings. The Taskforce completed its work in January 2013.

APAC AIG

An ATSB representative is the vice-chair of the ICAO Asia Pacific Accident Investigation Group (APAC AIG). The objective of the Working Group is to provide a forum in which countries in the Asia Pacific region can work cooperatively to increase aviation safety investigation capability.

FLICREP

An ATSB representative is on the ICAO Flight Recorder Panel (FLICREP) that reviews ICAO standards, recommended practices and guidance material for the installation and operation of flight recorders.

Accident Investigator Materials (AIM)

2012–13 saw materials failure specialists and forensic engineers from many international safety investigation agencies gather at the Paris offices of the Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile (BEA) for the inaugural *Accident Investigator Materials* (AIM) meeting. Aimed at promoting collaboration, technological awareness and best practice, the AIM meeting will become an annual event for specialists and practitioners of materials analysis in the pursuit of transport accident and incident investigation.

Casualty Analysis Working Group

In 2012–13, the ATSB actively participated in the International Maritime Organization's Casualty Analysis Working Group which reports to the Flag State Implementation Sub-Committee. Maritime investigators from the ATSB have participated in both the working group and the associated correspondence group analysing international marine casualties since the Sub-Committee's inception in 1993.

Section 10

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Australian National Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Infrastructure and Regional Development

I have audited the accompanying financial statements of the Australian Transport Safety Bureau for the year ended 30 June 2013, which comprise: a 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 Commitments; and Notes comprising a Summary of Significant Accounting Policies and other explanatory information.

Chief Executive's Responsibility for the Financial Statements

The Chief Executive of the Australian Transport Safety Bureau is responsible for the preparation of financial statements that give a true and fair view in accordance with the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*, including the Australian Accounting Standards, and for such internal control as is necessary to enable the preparation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

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 about whether the financial statements are free from material misstatement.

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 of the financial statements that give a true and fair view 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 the accounting policies used and the reasonableness of accounting estimates made by the Chief Executive of the Australian Transport Safety Bureau, as well as evaluating the overall presentation of the financial statements.

GPO Box 707 CANBERRA ACT 2601
19 National Circuit BARTON ACT 2600
Phone (02) 6203 7300 Fax (02) 6203 7777

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

Independence

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

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 2013 and of 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

27 September 2013

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 2013 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

27 September 2013

Jason McGuire
Chief Financial Officer

27 September 2013

Australian Transport Safety Bureau
Statement of Comprehensive Income
for the period ended 30 June 2013

	Notes	2013 $'000	2012 $'000
EXPENSES			
Employee benefits	3A	(16,010)	(15,917)
Supplier	3B	(7,254)	(6,848)
Depreciation and amortisation	3C	(1,502)	(1,110)
Finance costs	3D	(10)	(1)
Write-down and impairment of assets	3E	(7)	(9)
Losses from asset sales	3F	(4)	(8)
Total expenses		(24,787)	(23,893)
LESS:			
OWN-SOURCE INCOME			
Own-source revenue			
Sale of goods and rendering of services	4A	1,235	1,181
Other revenue	4B	25	-
Total own-source revenue		1,260	1,181
Gains			
Other gains	4C	536	48
Total gains		536	48
Total own-source income		1,796	1,229
Net cost of services		(22,991)	(22,664)
Revenue from Government	4D	21,799	21,308
Deficit attributable to the Australian Government		(1,192)	(1,356)
OTHER COMPREHENSIVE INCOME			
Changes in asset revaluation surplus		-	-
Total comprehensive loss		(1,192)	(1,356)
Total comprehensive loss attributable to the Australian Government		(1,192)	(1,356)

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

Australian Transport Safety Bureau
Balance Sheet
as at 30 June 2013

	Notes	2013 $'000	2012 $'000
ASSETS			
Financial Assets			
Cash and cash equivalents	5A	**887**	1,292
Trade and other receivables	5B	**7,320**	7,195
Other financial assets	5C	**21**	1
Total financial assets		**8,228**	8,488
Non-Financial Assets			
Property, plant and equipment	6A,B	**1,795**	1,138
Intangibles	6C,D	**1,915**	1,928
Other non-financial assets	6E	**167**	198
Total non-financial assets		**3,877**	3,264
Total assets		**12,105**	11,752
LIABILITIES			
Payables			
Suppliers	7A	**(390)**	(692)
Other payables	7B	**(536)**	(490)
Total payables		**(926)**	(1,182)
Interest Bearing Liabilities			
Leases	8A	**(169)**	(5)
Total interest bearing liabilities		**(169)**	(5)
Provisions			
Employee provisions	9A	**(4,621)**	(4,852)
Other provisions	9B	**(68)**	-
Total provisions		**(4,689)**	(4,852)
Total liabilities		**(5,784)**	(6,039)
Net assets		**6,321**	5,713
EQUITY			
Contributed equity		**9,884**	8,084
Reserves		**85**	85
Accumulated deficit		**(3,648)**	(2,456)
Total equity		**6,321**	5,713

Australian Transport Safety Bureau
Statement of Changes in Equity
for the period ended 30 June 2013

	Retained earnings		Asset revaluation surplus		Contributed equity/capital		Total equity	
	2013	2012	2013	2012	2013	2012	2013	2012
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Opening balance								
Balance carried forward from previous period	(2,456)	(1,099)	85	85	8,084	7,606	5,713	6,592
Adjusted opening balance	(2,456)	(1,099)	85	85	8,084	7,606	5,713	6,592
Comprehensive income								
Deficit for the period	(1,192)	(1,356)	-	-	-	-	(1,192)	(1,356)
Total comprehensive income	(1,192)	(1,356)	-	-	-	-	(1,192)	(1,356)
Transactions with owners								
Contributions by owners								
Equity injection - Appropriations	-	-	-	-	1,181	63	1,181	63
Departmental capital budget	-	-	-	-	619	415	619	415
Sub-total transactions with owners	-	-	-	-	1,800	478	1,800	478
Closing balance as at 30 June	(3,648)	(2,456)	85	85	9,884	8,084	6,321	5,713
Closing balance attributable to the Australian Government	(3,648)	(2,456)	85	85	9,884	8,084	6,321	5,713

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

Australian Transport Safety Bureau
Cash Flow Statement
for the period ended 30 June 2013

	Notes	2013 $'000	2012 $'000
OPERATING ACTIVITIES			
Cash received			
Appropriations		21,591	21,128
Sales of goods and rendering of services		1,259	1,283
Net GST received		809	870
Other		255	261
Total cash received		23,914	23,542
Cash used			
Employees		(16,149)	(15,306)
Suppliers		(7,784)	(7,152)
Borrowing costs		(9)	(1)
Other		(250)	(246)
Total cash used		(24,192)	(22,705)
Net cash (used by) from operating activities	10	(278)	837
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		12	1
Total cash received		12	1
Cash used			
Purchase of property, plant and equipment		(1,010)	(445)
Purchase of software		(891)	(393)
Total cash used		(1,901)	(838)
Net cash used by investing activities		(1,889)	(837)
FINANCING ACTIVITIES			
Cash received			
Contributed equity		1,800	478
Total cash received		1,800	478
Cash used			
Repayment of finance leases		(38)	(19)
Total cash used		(38)	(19)
Net cash from financing activities		1,762	459
Net (decrease) increase in cash held		(405)	459
Cash and cash equivalents at the beginning of the reporting period		1,292	833
Cash and cash equivalents at the end of the reporting period	5A	887	1,292

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

Australian Transport Safety Bureau
Schedule of Commitments
as at 30 June 2013

	2013 S'000	2012 S'000
BY TYPE		
Commitments receivable		
Net GST recoverable on commitments	(71)	(36)
Total commitments receivable	(71)	(36)
Commitments payable		
Capital commitments		
Property, plant and equipment[1]	50	134
Total capital commitments	50	134
Other commitments		
Other[2]	736	261
Total other commitments	736	261
Total commitments payable	786	395
Net commitments by type	715	359
BY MATURITY		
Commitments receivable		
Other commitments receivable		
One year or less	(26)	(32)
From one to five years	(45)	(4)
Total other commitments receivable	(71)	(36)
Total commitments receivable	(71)	(36)
Commitments payable		
Capital commitments		
One year or less	50	134
Total capital commitments	50	134
Other Commitments		
One year or less	241	218
From one to five years	495	43
Total other commitments	736	261
Total commitments payable	786	395
Net commitments by maturity	715	359

This schedule should be read in conjuction with the accompanying notes.

Note: Commitments are GST inclusive where relevant.

1. Property, plant and equipment commitments relate to contracts for the purchase of specialised investigation equipment in 2013 and 2012, multi functional devices and airconditioning units in 2012.

2. Other commitments mainly relate to contracts for the provision of payroll services, mobile phone carriage services and internal audit services.

Table of Contents - Notes

Note 1: Summary of Significant Accounting Policies

1.1 Objectives of the Australian Transport Safety Bureau

The Australian Transport Safety Bureau (ATSB) is an Australian Government controlled entity established by the *Transport Safety Investigation Act 2003 (TSI Act)*, as the national transport safety investigation agency. It is a not-for-profit entity. The ATSB's primary function is to improve aviation, marine and rail safety.

The ATSB is structured to meet the following outcome:

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.

The continued existence of the ATSB in its present form and with its present programs is dependent on Government policy and on continued funding by the Parliament for the ATSB's administration and programs.

The ATSB has no Administered activities.

1.2 Basis of Preparation of the Financial Statements

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

The financial statements have been prepared in accordance with:

a) Finance Minister's Orders (FMOs) for reporting periods ending on or after 1 July 2011; and
b) 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 at fair value. 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 executory contracts are not recognised unless required by an accounting standard. Liabilities and assets that are unrecognised are reported in the schedule of commitments or the schedule of contingencies.

The ATSB does not have any contingencies or commitments of a material nature to disclose.

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 judgements that have the most significant impact on the amounts recorded in the financial statements:

a) The fair value of the ATSB's property, plant and equipment was determined by an independent valuer for the period ended 30 June 2011. The ATSB has assessed that the carrying value of property, plant and equipment continues to represent fair value as at 30 June 2013 in accordance with the accounting policies disclosed in note 1.16; and
b) The Liability for long service leave has been determined by using the short-hand method prescribed by FMO division 43.71G. This method provides probability weights for each band of years of service as well as recognising and measuring the liability for long service leave at the present value of the estimated future cash flows to be made in respect of all employees at 30 June 2013. The estimate of present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

No accounting assumptions and estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

1.4 New Australian Accounting Standards

Adoption of New Australian Accounting Standard Requirements

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

New standards, revised standards, interpretations, amending standards that were issued prior to the sign-off date and are applicable to the current reporting period did not have a financial impact, and are not expected to have a future financial impact on the ATSB.

Future Australian Accounting Standard Requirements

The following new standards, revised standards, interpretations, and amending standards that were issued by the Australian Accounting Standards Board prior to sign-off date, which are expected to have a future financial impact on the ATSB:

AASB 9: Financial Instruments

AAASB 2010-7: Amendments to Australian Accounting Standards arising from AASB 9

AASB 119: Employee Benefits

AASB 2011-10: Amendments to Australian Accounting Standards arising from AASB 119 – Employee Benefits

Other new standards, revised standards, interpretations, and amending standards that were issued prior to the sign-off date and are applicable to the future reporting periods are not expected to have a future financial impact on the ATSB.

1.5 Revenue

Revenue from the sale of goods is recognised when:
a) the risks and rewards of ownership have been transferred to the buyer;
b) the entity retains no managerial involvement or effective control over the goods;
c) the revenue and transaction costs incurred can be reliably measured; and
d) it is probable that the economic benefits associated with the transaction will flow to the ATSB.

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:

a) the amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
b) 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 to 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 impairment allowance account. Collectability of debts is reviewed at the end of the reporting period. Allowances are made when collectability of the debt is no longer probable.

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

Revenue from Government

Amounts appropriated for departmental appropriations for the year (adjusted for any formal additions and reductions) are recognised as Revenue from Government 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.

1.6 Gains

Resources Received Free of Charge

Resources received free of charge are recognised as gains 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.

Contributions of assets at no cost of acquisition or for nominal consideration are recognised as gains at their fair value when the asset qualifies for recognition, unless received from another government entity as a consequence of a restructuring of administrative arrangements.

Sale of Assets

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) and Departmental Capital Budgets (DCBs) are recognised directly in contributed equity in that year.

1.8 Employee Benefits

Liabilities for 'short-term employee benefits' (as defined in AASB 119 *Employee Benefits*) and termination benefits due within twelve months of the 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.

Other long-term employee benefits are measured as a net total of the present value of the defined benefit obligation at the end of the reporting period minus the fair value at the end of the reporting period of plan assets (if any) out of which the obligations are to be settled directly.

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 be 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 using the short-hand method prescribed by FMO division 43.71G. This method provides probability weights for each band of years of service as well as recognising and measuring the liability for long service leave at the present value of the estimated future cash flows to be made in respect of all employees at 30 June 2013. The estimate of 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 when the ATSB has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

Superannuation

The ATSB's staff 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 in the Department of Finance and Deregulation's administered schedules and notes.

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

The liability for superannuation recognised as at 30 June 2013 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. An operating lease is a lease that is not a finance lease. 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 is recognised at its nominal amount. Cash and cash equivalents includes:

a) cash on hand; and
b) 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.

1.12 Financial Assets

The ATSB classifies its financial assets in the following categories:

a) cash and cash equivalents; and
b) 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 are recognised and derecognised upon 'trade date'.

Effective Interest Method
The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis except for financial assets that are recognised at fair value through profit or loss.

Loans and Receivables
Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables'. Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

The ATSB does not have any loans.

Impairment of Financial Assets
Financial assets are assessed for impairment at the end of each reporting period.

Financial assets held at amortised cost - if there is objective evidence that an impairment loss has been incurred for loans and receivables or held to maturity investments held at amortised cost, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the Statement of Comprehensive Income.

Financial assets held at cost - if there is objective evidence that an impairment loss has been incurred, the amount of the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash flows discounted at the current market rate for similar assets.

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. These 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 the likelihood settlement is greater than remote.

The ATSB has no quantifiable, unquantifiable or significant remote contingent assets or liabilities.

1.15 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.

1.16 Property, Plant and Equipment

Asset Recognition Threshold

Purchases of property, plant and equipment are recognised initially at cost in the balance sheet, except for purchases costing less than $5,000 excluding GST, 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. This is particularly relevant to 'make good' provisions in property leases taken up by the Department of Infrastructure and Transport for properties occupied by the ATSB where there exists an obligation to restore the property to its original condition. As the property leases are held by the Department of Infrastructure and Transport, these costs are included in the value of the ATSB's Property, Plant and Equipment asset class with a corresponding provision for the 'make good' recognised.

Revaluations

The ATSB only has plant and equipment assets and the fair values for each asset are measured at market selling price, or depreciated replacement cost in isolated instances where no market prices or indicators are available for specialised, diagnostic equipment.

Following initial recognition at cost, property, plant and equipment were carried at fair value less subsequent accumulated depreciation and accumulated impairment losses. Valuations have been conducted with sufficient frequency to ensure that the carrying amounts of assets did not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depended upon the volatility of movements in market values for the relevant assets.

Revaluation adjustments were made on a class basis. Any revaluation increment was credited to equity under the heading of asset revaluation reserve except to the extent that it reversed a previous revaluation decrement of the same asset class that was previously recognised in the surplus/deficit. Revaluation decrements for a class of assets were recognised directly in the surplus/deficit except to the extent that they reversed a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date was eliminated against the gross carrying amount of the asset and the asset was restated to the revalued amount.

Depreciation

Depreciable property, 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 each class of depreciable asset are based on the following useful lives:

	2013	2012
Plant and Equipment	10 years	10 years
Computer Equipment	4 years	4 years
Office Equipment	10 years	10 years

Impairment

All assets were assessed for impairment at 30 June 2013. 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 the ATSB were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

Derecognition

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

1.17 Intangibles

The ATSB's intangibles comprise of internally developed software for internal use and purchased software. These assets are carried at cost less accumulated amortisation and accumulated impairment losses. Intangibles are amortised on a straight line basis over their anticipated useful life and the default useful life is five years.

All intangibles were assessed for indications of impairment as at 30 June 2013.

1.18 Taxation / Competitive Neutrality

The ATSB 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:

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

1.19 Section 83 of the Constitution

The Australian Government continues to have regard to developments in case law, including the High Court's most recent decision on Commonwealth expenditure in *Williams v Commonwealth* (2012) 288 ALR 410, as they contribute to the larger body of law relevant to the development of Commonwealth programs. In accordance with its general practice, the Government will continue to monitor and assess risk and decide on any appropriate actions to respond to risks of expenditure not being consistent with constitutional or other legal requirements.

During 2012-13 additional legal advice was received that indicated there could be breaches of Section 83 under certain circumstances with payments for long service leave, goods and services tax and payments under determinations of the Remuneration Tribunal. The ATSB has undertaken a review of its processes and controls over payments for these items. The ATSB has determined that there is low risk of the certain circumstances mentioned in the legal advice applying to the ATSB. The ATSB is not aware of any specific breaches of Section 83 in respect of these items.

1.20 Schedule of Commitments

In prior financial years the ATSB has traditionally not included a separate 'Schedule of Commitments' in its financial statements. This is due to:

1) the comprehensive services provided to the ATSB from the Department of Infrastructure and Regional Development (formally the Department of Infrastructure and Transport) where the majority of commitments were held by the Department of Infrastructure and Regional Development; and
2) the ATSB assessing that it did not have any commitments of a material nature to disclose.

For completeness, the ATSB has included a 'Schedule of Commitments' in the 2012-13 financial statements.

Note 2: Events After the Reporting Period

On 27 September 2013 there was only one event that occurred after the reporting period that required disclosure in these financial statements. This event relates to the Statute Stocktake (Appropriations) Act 2013 to repeal appropriations from 1 July 1999 to 30 June 2010 that received royal assent on 1 July 2013. Refer to Note 15C for the impact on the ATSB.

Note 3: Expenses

	2013 $'000	2012 $'000
Note 3A: Employee Benefits		
Wages and salaries	(12,431)	(12,024)
Superannuation:		
Defined contribution plans	(733)	(592)
Defined benefit plans	(1,534)	(1,453)
Leave and other entitlements	(1,236)	(1,641)
Separation and redundancies	(7)	(122)
Other employee expenses[1]	(69)	(85)
Total employee benefits	(16,010)	(15,917)

1. Other employee expenses consist mainly of Fringe Benefit Tax expenses, Comsuper fees & relocation expenses for ATSB employees.

Note 3B: Supplier		
Goods and services		
Office rent	(2,002)	(1,779)
Travel expenses	(870)	(1,217)
Services from the Department of Infrastructure and Transport	(493)	(495)
Information technology	(618)	(446)
Training and conferences	(293)	(438)
Services from consultants	(127)	(419)
Communications	(408)	(308)
Contract staff	(512)	(293)
Contracted services	(415)	(286)
Investigation services	(598)	(204)
Publications and printing	(197)	(182)
Audit fees	(46)	(46)
Legal	(3)	(22)
Other goods and services	(534)	(532)
Total goods and services	(7,116)	(6,667)
Goods and services are made up of:		
Provision of goods – related entities	-	-
Provision of goods – external parties	(139)	(81)
Rendering of services – related entities	(3,546)	(3,345)
Rendering of services – external parties	(3,431)	(3,241)
Total goods and services	(7,116)	(6,667)
Workers compensation expenses	(138)	(181)
Total other supplier expenses	(138)	(181)
Total supplier expenses	(7,254)	(6,848)

Note 3C: Depreciation and Amortisation		
Depreciation:		
Property, plant and equipment	(553)	(407)
Finance Leases	(45)	(18)
Total depreciation	(598)	(425)
Amortisation:		
Intangibles	(904)	(685)
Total amortisation	(904)	(685)
Total depreciation and amortisation	(1,502)	(1,110)

Note 3D: Finance Costs		
Finance leases	(9)	(1)
Unwinding of discount	(1)	-
Total finance costs	(10)	(1)

Note 3: Expenses continued		
Note 3E: Write-Down and Impairment of Assets		
Asset write-downs and impairments from:		
Impairment on financial instruments	-	(2)
Impairment of property, plant and equipment	(7)	(7)
Total write-down and impairment of assets	(7)	(9)
Note 3F: Losses from Asset Sales		
Property, plant and equipment:		
Proceeds from sale	12	2
Carrying value of assets sold	(16)	(10)
Total losses from asset sales	(4)	(8)

Note 4: Income

	2013 $'000	2012 $'000
OWN-SOURCE REVENUE		
Note 4A: Sale of Goods and Rendering of Services		
Rendering of services - related entities	876	1,165
Rendering of services - external parties	359	16
Total sale of goods and rendering of services	1,235	1,181
Note 4B: Other Revenue		
Other	25	-
Total other revenue	25	-
GAINS		
Note 4C: Other Gains		
Resources received free of charge	534	46
Other	2	2
Total other gains	536	48
REVENUE FROM GOVERNMENT		
Note 4D: Revenue from Government		
Appropriations:		
Departmental appropriations	21,799	21,308
Total revenue from Government	21,799	21,308

Note 5: Financial Assets

	2013 $'000	2012 $'000
Note 5A: Cash and Cash Equivalents		
Cash on hand or on deposit	887	1,292
Total cash and cash equivalents	887	1,292
Note 5B: Trade and Other Receivables		
Goods and Services:		
Goods and services - related entities	-	49
Goods and services - external parties	28	16
Total receivables for goods and services	28	65
Appropriations receivable:		
For existing programs	7,115	6,907
Total appropriations receivable	7,115	6,907
Other receivables:		
GST receivable from the Australian Taxation Office	177	223
Total other receivables	177	223
Total trade and other receivables (gross)	7,320	7,195
Total trade and other receivables (net)	7,320	7,195
Receivables are expected to be recovered in:		
No more than 12 months	7,320	7,195
Total trade and other receivables (net)	7,320	7,195
Receivables are aged as follows:		
Not overdue	7,320	7,195
Overdue by:		
0 to 30 days	-	-
31 to 60 days	-	-
61 to 90 days	-	-
More than 90 days	-	-
Total receivables (gross)	7,320	7,195

Credit terms for goods and services were within 30 days (2012: 30 days).

Note 5C: Other Financial Assets		
Accrued revenue	21	1
Total other financial assets	21	1
Total other financial assets - are expected to be recovered in:		
No more than 12 months	21	1
More than 12 months	-	-
Total other financial assets	21	1

Note 6: Non-Financial Assets

	2013 $'000	2012 $'000
Note 6A: Property, Plant and Equipment		
Other property, plant and equipment:		
Fair value	2,758	1,768
Accumulated depreciation	(963)	(630)
Total other property, plant and equipment	**1,795**	**1,138**
Total property, plant and equipment	**1,795**	**1,138**

No indicators of impairment were found for property, plant and equipment

No property, plant or equipment is expected to be sold or disposed of within the next 12 months

Note 6B: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment 2013

	Other property, plant & equipment $'000	Total $'000
As at 1 July 2012		
Gross book value	1,768	1,768
Accumulated depreciation and impairment	(630)	(630)
Net book value 1 July 2012	**1,138**	**1,138**
Additions		
By purchase	1,076	1,076
By finance lease	202	202
Impairments recognised in the operating result	(7)	(7)
Assets held for sale or in a disposal group held for sale	(16)	(16)
Depreciation/amortisation expense	(598)	(598)
Net book value 30 June 2013	**1,795**	**1,795**
Net book value as of 30 June 2013 represented by:		
Gross book value	2,758	2,758
Accumulated depreciation/amortisation and impairment	(963)	(963)
Net book value 30 June 2013	**1,795**	**1,795**

Note 6B (Cont'd): Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment 2012

	Other property, plant & equipment $'000	Total $'000
As at 1 July 2011		
Gross book value	1,349	1,349
Accumulated depreciation and impairment	(214)	(214)
Net book value 1 July 2011	**1,135**	**1,135**
Additions		
By purchase	445	445
Impairments recognised in the operating result	(7)	(7)
Assets held for sale or in a disposal group held for sale	(10)	(10)
Depreciation/amortisation expense	(425)	(425)
Net book value 30 June 2012	**1,138**	**1,138**
Net book value as of 30 June 2012 represented by:		
Gross book value	1,768	1,768
Accumulated depreciation/amortisation and impairment	(630)	(630)
Net book value 30 June 2012	**1,138**	**1,138**

Note 6: Non-Financial Assets continued

	2013 $'000	2012 $'000
Note 6C: Intangibles		
Computer software:		
Internally developed – in progress	104	456
Internally developed – in use	4,809	3,998
Purchased	718	285
Accumulated amortisation	(3,716)	(2,811)
Total computer software	1,915	1,928
Total intangibles	1,915	1,928

No indicators of impairment were found for intangible assets

No intangibles are expected to be sold or disposed of within the next 12 months

Note 6D: Reconciliation of the Opening and Closing Balances of Intangibles 2013

	Computer software internally developed $'000	Computer software purchased $'000	Total $'000
As at 1 July 2012			
Gross book value	4,454	285	4,739
Accumulated amortisation and impairment	(2,726)	(85)	(2,811)
Net book value 1 July 2012	1,728	200	1,928
Additions			
By purchase or internally developed	458	433	891
Amortisation	(697)	(207)	(904)
Net book value 30 June 2013	1,489	426	1,915
Net book value as of 30 June 2013 represented by:			
Gross book value	4,912	718	5,630
Accumulated amortisation and impairment	(3,423)	(292)	(3,715)
Net book value 30 June 2013	1,489	426	1,915

Note 6D (Cont'd): Reconciliation of the Opening and Closing Balances of Intangibles 2012

	Computer software internally developed $'000	Computer software purchased $'000	Total $'000
As at 1 July 2011			
Gross book value	4,171	174	4,345
Accumulated amortisation and impairment	(2,082)	(44)	(2,126)
Net book value 1 July 2011	2,089	130	2,219
Additions			
By purchase or internally developed	283	111	394
Amortisation	(644)	(41)	(685)
Net book value 30 June 2012	1,728	200	1,928
Net book value as of 30 June 2012 represented by:			
Gross book value	4,454	285	4,739
Accumulated amortisation and impairment	(2,726)	(85)	(2,811)
Net book value 30 June 2012	1,728	200	1,928

	2013 $'000	2012 $'000
Note 6E: Other Non-Financial Assets		
Prepayments	167	198
Total other non-financial assets	167	198
Total other non-financial assets - are expected to be recovered in:		
No more than 12 months	158	179
More than 12 months	9	19
Total other non-financial assets	167	198

No indicators of impairment were found for other non-financial assets

Note 7: Payables

	2013 $'000	2012 $'000
Note 7A: Suppliers		
Accrued expenses	(208)	(250)
Trade creditors	(182)	(442)
Total suppliers payables	(390)	(692)
Suppliers payables expected to be settled within 12 months:		
Related entities	(31)	(25)
External parties	(359)	(667)
Total	(390)	(692)
Total suppliers payables	(390)	(692)

Settlement was usually made within 30 days.

Note 7B: Other Payables		
Wages and salaries	(468)	(366)
Superannuation	(60)	(57)
Unearned income	(8)	(67)
Total other payables	(536)	(490)
Total other payables are expected to be settled in:		
No more than 12 months	(536)	(490)
More than 12 months	-	-
Total other payables	(536)	(490)

Note 7: Payables

	2013 $'000	2012 $'000
Note 7A: Suppliers		
Accrued expenses	(208)	(250)
Trade creditors	(182)	(442)
Total suppliers payables	(390)	(692)
Suppliers payables expected to be settled within 12 months:		
Related entities	(31)	(25)
External parties	(359)	(667)
Total	(390)	(692)
Total suppliers payables	(390)	(692)

Settlement was usually made within 30 days.

Note 7B: Other Payables		
Wages and salaries	(468)	(366)
Superannuation	(60)	(57)
Unearned income	(8)	(67)
Total other payables	(536)	(490)
Total other payables are expected to be settled in:		
No more than 12 months	(536)	(490)
More than 12 months	-	-
Total other payables	(536)	(490)

Note 8: Interest Bearing Liabilities

	2013 $'000	2012 $'000
Note 8A: Leases		
Finance leases	(169)	(5)
Total finance leases	(169)	(5)
Payable:		
Within one year:		
Minimum lease payments	(47)	(5)
Deduct: future finance charges	7	-
In one to five years:		
Minimum lease payments	(135)	-
Deduct: future finance charges	6	-
Finance leases recognised on the balance sheet	(169)	(5)

Notes:

In 2013, Finance leases existed in relation to certain office equipment assets, these leases expired in September 2012. The interest rate implicit in the office equipment leases averaged 5.20% (2012: 5.20%). New finance leases for office pool vehicles commenced during 2012-2013. The leases were non-cancellable and for fixed terms of 3 years. The interest rate implicit in the vehicle leases averaged 4.94%. The lease assets secured the lease liabilities. The ATSB guaranteed the residual values of all assets leased. There were no contingent rentals.

Note 9: Provisions

	2013 $'000	2012 $'000
Note 9A: Employee Provisions		
Leave	(4,621)	(4,852)
Total employee provisions	(4,621)	(4,852)
Employee provisions are expected to be settled in:		
No more than 12 months	(2,109)	(2,153)
More than 12 months	(2,512)	(2,699)
Total employee provisions	(4,621)	(4,852)
Note 9B: Other Provisions		
Provision for restoration obligations	(68)	-
Total other provisions	(68)	-
Other provisions are expected to be settled in:		
No more than 12 months	-	-
More than 12 months	(68)	-
Total other provisions	(68)	-

	Provision for guarantee $'000	Provision for restoration $'000	Total $'000
Carrying amount 1 July 2012	-	-	-
Additional provisions made	-	(67)	(67)
Amounts used	-	-	-
Amounts reversed	-	-	-
Unwinding of discount or change in discount rate	-	(1)	(1)
Closing balance 2013	-	(68)	(68)

Notes:

The Department of Infrastructure and Transport (DOIT) leases all premisies that the ATSB occupies. The ATSB reimburses DOIT for its portion of lease costs. There is currently 1 agreement (2012: Nil.) for the leasing of premises which have provisions requiring the ATSB (through DOIT) to restore the premises to their original condition at the conclusion of the lease. The ATSB has made a provision to reflect the present value of this obligation.

Note 10: Cash Flow Reconciliation

	2013 $'000	2012 $'000
Reconciliation of cash and cash equivalents as per Balance Sheet to Cash Flow Statement		
Cash and cash equivalents as per:		
Cash flow statement	887	1,292
Balance sheet	887	1,292
Difference	-	-
Reconciliation of net cost of services to net cash (used by) from operating activities:		
Net cost of services	(22,991)	(22,664)
Add revenue from Government	21,799	21,308
Adjustments for non-cash items		
Depreciation / amortisation	1,502	1,110
Net write down of non-financial assets	7	7
Net write down of financial assets	-	2
Loss on sale of assets	4	8
Unwinding of Discount	1	-
Changes in assets / liabilities		
(Increase) / decrease in net receivables	(124)	8
(Increase) / decrease in other assets	31	(61)
(Increase) / decrease in accrued revenue	(20)	9
Increase / (decrease) in employee provisions	(231)	619
Increase / (decrease) in supplier payables	(302)	417
Increase in other payables	46	74
Net cash (used by) from operating activities	(278)	837

Note 11: Senior Executive Remuneration

Note 11A: Senior Executive Remuneration Expenses for the Reporting Period

	2013 $	2012 $
Short-term employee benefits:		
Salary	(727,893)	(681,989)
Annual leave accrued	(56,165)	(53,904)
Allowances	(4,587)	(21,007)
Total short-term employee benefits	(788,645)	(756,900)
Post-employment benefits:		
Superannuation	(114,934)	(92,456)
Total post-employment benefits	(114,934)	(92,456)
Other long-term employee benefits:		
Long-service leave	(17,948)	(16,816)
Total other long-term employee benefits	(17,948)	(16,816)
Total senior executive remuneration expenses	(921,527)	(866,172)

1. Note 11A is prepared on an accrual basis.

2. Note 11A excludes acting arrangements and part-year service where total remuneration expensed as a senior executive was less than $180,000.

Note 11: Senior Executive Remuneration continued

Note 11B: Average Annual Reportable Remuneration Paid to Substantive Senior Executives during the Reporting Period

Average annual reportable remuneration paid to substantive senior executives in 2013

Average annual reportable remuneration[1]	Substantive senior executives	Reportable salary[2]	Contributed superannuation[3]	Reportable allowances[4]	Bonus paid[5]	Total reportable remuneration
	No.	$	$	$	$	$
Total reportable remuneration (including part-time arrangements):						
Less than $180,000	2	52,699	9,285	-	-	61,984
$180,000 to $209,999	-	-	-	-	-	-
$210,000 to $239,999	2	193,530	29,957	-	-	223,487
$240,000 to $269,999	-	-	-	-	-	-
$270,000 to $299,999	-	-	-	-	-	-
$300,000 to $329,999[6]	1	279,733	46,193	-	-	325,926
$330,000 to $359,999	-	-	-	-	-	-
$360,000 to $389,999	-	-	-	-	-	-
$390,000 to $419,999	-	-	-	-	-	-
Total number of substantive senior executives	5					

Average annual reportable remuneration paid to substantive senior executives in 2012

Average annual reportable remuneration[1]	Substantive senior executives	Reportable salary[2]	Contributed superannuation[3]	Reportable allowances[4]	Bonus paid[5]	Total reportable remuneration
	No.	$	$	$	$	$
Total reportable remuneration (including part-time arrangements):						
Less than $180,000	2	51,161	9,302	-	-	60,463
$180,000 to $209,999	-	-	-	-	-	-
$180,000 to $209,999	2	182,470	23,361	-	-	205,831
$210,000 to $239,999	-	-	-	-	-	-
$240,000 to $269,999	-	-	-	-	-	-
$270,000 to $299,999	-	-	-	-	-	-
$300,000 to $329,999	-	-	-	-	-	-
$330,000 to $359,999	-	-	-	-	-	-
$360,000 to $389,999[6]	1	312,222	39,231	16,421	-	367,874
Total number of substantive senior executives	5					

1. This table reports substantive senior executives who received remuneration during the reporting period. Each row is an averaged figure based on headcount for individuals in the band.

2. 'Reportable salary' includes the following:
   a) gross payments (less any bonuses paid, which are separated out and disclosed in the 'bonus paid' column);
   b) reportable fringe benefits (at the net amount prior to 'grossing up' for tax purposes);
   c) exempt foreign employment income; and
   d) salary sacrificed benefits.

3. The 'contributed superannuation' amount is the average cost to the entity for the provision of superannuation benefits to substantive senior executives in that reportable remuneration band during the reporting period.

4. 'Reportable allowances' are the average actual allowances paid as per the 'total allowances' line on individuals' payment summaries.

5. The ATSB does not pay bonuses to Senior Executives.

6. This note is prepared on a 'cash' basis as required under the Finance Minister's Orders. The variation of salary within this band between 2012-13 and the 2011-12 is due to the timing of the final payment of the respective staff member's Total Remunderation Package.

Note 11: Senior Executive Remuneration continued

Note 11C:Average Annual Reportable Remuneration Paid to Other Highly Paid Staff during the Reporting Period

Average annual reportable remuneration paid to other highly paid staff in 2013

Average annual reportable remuneration[1]	Other highly paid staff	Reportable salary[2]	Contributed superannuation[3]	Reportable allowances[4]	Bonus paid[5]	Total reportable remuneration
	No.	$	$	$	$	$
Total reportable remuneration (including part-time arrangements):						
$180,000 to $209,999	1	154,272	26,008	-	-	180,280
$210,000 to $239,999	1	193,268	32,432	-	-	225,700
Total number of other highly paid staff	2					

Average annual reportable remuneration paid to other highly paid staff in 2012

Average annual reportable remuneration	Other highly paid staff	Reportable salary[2]	Contributed superannuation[3]	Reportable allowances[4]	Bonus paid[5]	Total reportable remuneration
	No.	$	$	$	$	$
Total reportable remuneration (including part-time arrangements):						
$180,000 to $209,999	-	-	-	-	-	-
$210,000 to $239,999	1	187,661	25,741	-	-	213,402
Total number of other highly paid staff	1					

1. This table reports staff:
   a) who were employed by the entity during the reporting period;
   b) whose reportable remuneration was $180,000 or more for the reporting period; and
   c) were not required to be disclosed in Table B or director disclosures.
Each row is an averaged figure based on headcount for individuals in the band.

2. 'Reportable salary' includes the following:
   a) gross payments (less any bonuses paid, which are separated out and disclosed in the 'bonus paid' column);
   b) reportable fringe benefits (at the net amount prior to 'grossing up' for tax purposes);
   c) exempt foreign employment income; and
   d) salary sacrificed benefits.

3. The 'contributed superannuation' amount is the average cost to the entity for the provision of superannuation benefits to other highly paid staff in that reportable remuneration band during the reporting period.

4. 'Reportable allowances' are the average actual allowances paid as per the 'total allowances' line on individuals' payment summaries.

5. The ATSB does not pay bonuses to its employees.

Note 12: Remuneration of Auditors

	2013 $'000	2012 $'000
Financial statement audit services were provided free of charge to the ATSB by the Australian National Audit Office (ANAO).		
Fair value of the services provided		
Financial statement audit services	(46)	(46)
Total	(46)	(46)

No other services were provided by the ANAO.

Note 13: Financial Instruments

	2013 $'000	2012 $'000
Note 13A: Categories of Financial Instruments		
Financial Assets		
Loans and receivables:		
Cash and cash equivalents	887	1,292
Trade and other receivables	28	65
Total	915	1,357
Carrying amount of financial assets	915	1,357
Financial Liabilities		
Trade creditors	(182)	(442)
Finance leases	(169)	(5)
Total	(351)	(447)
Carrying amount of financial liabilities	(351)	(447)
Note 13B: Net Expense from Financial Assets		
Receivables		
Impairment	-	(2)
Net loss from receivables	-	(2)
Net loss from financial assets	-	(2)
Note 13C: Net Expense from Financial Liabilities		
Financial liabilities - at amortised cost		
Interest expense	(9)	(1)
Net loss from financial liabilities - at amortised cost	(9)	(1)
Net loss from financial liabilities	(9)	(1)

Note 13D: Fair Value of Financial Instruments

	Carrying amount 2013 $'000	Fair value 2013 $'000	Carrying amount 2012 $'000	Fair value 2012 $'000
Financial Assets				
Cash and cash equivalents	887	887	1,292	1,292
Trade and other receivables	28	28	65	65
Total	915	915	1,357	1,357
Financial Liabilities				
Trade creditors	(182)	(182)	(442)	(442)
Finance leases	(169)	(169)	(5)	(5)
Total	(351)	(351)	(447)	(447)

Note 13E: Credit Risk

The entity was exposed to minimal credit risk as loans and receivables were cash and trade receivables. The maximum exposure to credit risk was the risk that arises from potential default of a debtor. This amount was equal to the total amount of trade receivables (2013: $28,000 and 2012: $65,000).

The entity had assessed the risk of the default on payment and had allocated Nil in 2013 (2012: Nil) to an impairment allowance account.

The entity held no collateral to mitigate against credit risk.

The following table illustrates the entity's gross exposure to credit risk, excluding any collateral or credit enhancements.

	2013 $'000	2012 $'000
Financial assets		
Trade and other receivables	28	65
Total	28	65

The ATSB holds no collateral to mitigate against credit risk.

Note 13: Financial Instruments continued

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

	Not past due nor impaired	Not past due nor impaired	Past due or impaired	Past due or impaired
	2013	2012	2013	2012
	$'000	$'000	$'000	$'000
Trade receivables	28	65	-	-
Total	28	65	-	-

Ageing of financial assets that were past due but not impaired for 2013

	0 to 30 days	31 to 60 days	61 to 90 days	90+ days	Total
	$'000	$'000	$'000	$'000	$'000
Trade receivables	-	-	-	-	-
Total	-	-	-	-	-

Ageing of financial assets that were past due but not impaired for 2012

	0 to 30 days	31 to 60 days	61 to 90 days	90+ days	Total
	$'000	$'000	$'000	$'000	$'000
Trade receivables	-	-	-	-	-
Total	-	-	-	-	-

Note 13F: Liquidity Risk

The ATSB's financial liabilities are trade payables and finance leases on office pool vehicles. 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 significantly low.

Maturities for non-derivative financial liabilities 2013

	On demand	within 1 year	1 to 2 years	2 to 5 years	> 5 years	Total
	$'000	$'000	$'000	$'000	$'000	$'000
Trade creditors	-	(182)	-	-	-	(182)
Finance leases	-	(40)	(41)	(88)	-	(169)
Total	-	(222)	(41)	(88)	-	(351)

Maturities for non-derivative financial liabilities 2012

	On demand	within 1 year	1 to 2 years	2 to 5 years	> 5 years	Total
	$'000	$'000	$'000	$'000	$'000	$'000
Trade creditors	-	(196)	-	-	-	(196)
Finance leases	-	(5)	-	-	-	(5)
Total	-	(201)	-	-	-	(201)

The ATSB had no derivative financial liabilities in either 2013 or 2012.

Note 13G: Market 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 risks.

The only interest bearing item on the balance sheet is the finance leases on office pool vehicles. The leases were established at a fixed rate

Note 14: Financial Assets Reconciliation

		2013 $'000	2012 $'000
Financial assets	**Notes**		
Total financial assets as per balance sheet		**8,228**	8,488
Less: non-financial instrument components:			
Appropriations receivable	5B	**7,115**	6,907
GST receivable from the Australian Taxation Office	5B	**177**	223
Other financial assets	5C	**21**	1
Total non-financial instrument components		**7,313**	7,131
Total financial assets as per financial instruments note		**915**	1,357

Note 15: Appropriations

Table A: Annual Appropriations ('Recoverable GST exclusive')

	2013 Appropriations								
	Appropriation Act			*FMA Act*					
	Annual Appropriation $'000	Appropriations reduced[1] $'000	AFM $'000	Section 30 $'000	Section 31 $'000	Section 32 $'000	Total appropriation $'000	Appropriation applied in 2013 (current and prior years) $'000	Variance $'000
DEPARTMENTAL									
Ordinary annual services	22,495	-	-	-	1,207	-	23,702	(23,893)	(191)
Other services									
Equity	1,181	-	-	-		-	1,181	(1,181)	-
Total departmental	23,676	-	-	-	1,207	-	24,883	(25,074)	(191)

Notes:

1. Appropriations reduced under Appropriation Acts (Nos. 1,3&5) 2012-13: sections 10, 11, and 12 and under Appropriation Acts (Nos. 2,4&6) 2012-13: sections 12,13, and 14. Departmental appropriations do not lapse at financial year-end. However, the responsible Minister may decide that part or all of a departmental appropriation is not required and request the Finance Minister to reduce that appropriation. The reduction in the appropriation is effected by the Finance Minister's determination and is disallowable by Parliament.
2. In 2012-13, there was a $77,000 adjustment that met the recognition criteria of a formal reduction in revenue (in accordance with FMO Div 101) but at law the appropriations had not been amended before the end of the reporting period.

	2012 Appropriations								
	Appropriation Act			*FMA Act*					
	Annual Appropriation $'000	Appropriations reduced[1] $'000	AFM $'000	Section 30 $'000	Section 31 $'000	Section 32 $'000	Total appropriation $'000	Appropriation applied in 2012 (current and prior years) $'000	Variance $'000
DEPARTMENTAL									
Ordinary annual services	21,723	-	-	-	1,398	-	23,121	(22,204)	917
Other services									
Equity	63	-	-	-		-	63	(63)	-
Total departmental	21,786	-	-	-	1,398	-	23,184	(22,267)	917

Notes:

1. Appropriations reduced under Appropriation Acts (Nos. 1 & 3) 2011-12: sections 10, 11, 12 and 15 and under Appropriation Acts (Nos. 2&4) 2011-12: sections 12, 13, 14 and 17. Departmental appropriations do not lapse at financial year-end. However, the responsible Minister may decide that part or all of a departmental appropriation is not required and request the Finance Minister to reduce that appropriation. The reduction in the appropriation is effected by the Finance Minister's determination and is disallowable by Parliament.

Note 15: Appropriations continued

Table B: Departmental and Administered Capital Budgets ("Recoverable GST exclusive")

	2013 Capital Budget Appropriations				Capital Budget Appropriations applied in 2013 (current and prior years)			
	Appropriation Act		*FMA Act*					
	Annual Capital Budget $'000	Appropriations reduced[2] $'000	Section 32 $'000	Total Capital Budget Appropriations $'000	Payments for non-financial assets[3] $'000	Payments for other purposes $'000	Total payments $'000	Variance $'000
DEPARTMENTAL								
Ordinary annual services - Departmental Capital Budget[1]	619	-	-	619	(720)	-	(720)	(101)

Notes:

1. Departmental and Administered Capital Budgets are appropriated through Appropriation Acts (No.1,3,5). They form part of ordinary annual services, and are not separately identified in the Appropriation Acts. For more information on ordinary annual services appropriations, please see Table A: Annual appropriations.
2. Appropriations reduced under Appropriation Acts (No.1,3,5) 2012-13: sections 10, 11, 12 and 15 or via a determination by the Finance Minister.
3. Payments made on non-financial assets include purchases of assets, expenditure on assets which has been capitalised, costs incurred to make good an asset to its original condition, and the capital repayment component of finance leases.

	2012 Capital Budget Appropriations				Capital Budget Appropriations applied in 2012 (current and prior years)			
	Appropriation Act		*FMA Act*					
	Annual Capital Budget $'000	Appropriations reduced[2] $'000	Section 32 $'000	Total Capital Budget Appropriations $'000	Payments for non-financial assets[3] $'000	Payments for other purposes $'000	Total payments $'000	Variance $'000
DEPARTMENTAL								
Ordinary annual services - Departmental Capital Budget[1]	415	-	-	415	(775)	-	(775)	(360)

Notes:

1. Departmental and Administered Capital Budgets are appropriated through Appropriation Acts (No.1,3,5). They form part of ordinary annual services, and are not separately identified in the Appropriation Acts. For more information on ordinary annual services appropriations, please see Table A: Annual appropriations.
2. Appropriations reduced under Appropriation Acts (No.1,3,5) 2011-12: sections 10, 11, 12 and 15 or via a determination by the Finance Minister.
3. Payments made on non-financial assets include purchases of assets, expenditure on assets which has been capitalised, costs incurred to make good an asset to its original condition, and the capital repayment component of finance leases.

Note 15: Appropriations continued

Table C: Unspent Annual Appropriations ('Recoverable GST exclusive')

Authority	2013 $'000	2012 $'000
DEPARTMENTAL		
Appropriation Act (No. 1) 2007-08	-	4,756
Appropriation Act (No. 1) 2009-10	-	1,586
Appropriation Act (No. 1) 2011-12	6,907	565
Appropriation Act (No. 1) 2012-13	208	-
Cash	887	1,292
Total	8,002	8,199

Notes:

The Statute Stocktake (Appropriations) Act 2013 (Act No. 132 of 2013) to repeal appropriations from 1 July 1999 to 30 June 2010 received royal assent on 1 July 2013. In response to the repealing of old appropriation acts, the ATSB sought and received approval from the Department of Finance and Deregulation to transfer the available funds for drawdown from 2007-08 to 2009-10 to 2011-12. This transfer enabled the ATSB to maintain its Appropriation Receivable balance on its balance sheet, which is quite important to enable the ATSB to have sufficient resources to meet its liabilities, especially its employee provisions. This transfer is reflected in the difference in comparative balances between 2012 and 2013.

Note 16: Compensation and Debt Relief

	2013 $	2012 $
Compensation and Debt Relief - Departmental		
No 'Act of Grace payments' were expended during the reporting period (2012: no payments).	-	-
No waivers of amounts owing to the Australian Government were made pursuant to subsection 34(1) of the *Financial Management and Accountability Act 1997* . (2012: no waivers)	-	-
No payments were provided under the Compensation for Detriment caused by Defective Administration (CDDA) Scheme during the reporting period. (2012: no payments)	-	-
No ex-gratia payments were provided for during the reporting period. (2012: no payments).	-	-
No payments were provided in special circumstances relating to APS employment pursuant to section 73 of the *Public Service Act 1999 (PS Act)* during the reporting period (2012: no payments).	-	-

Note 17: Reporting of Outcomes

Note 17A: Net Cost of Outcome Delivery

	Outcome 1		Total	
	2013	2012	2013	2012
	S'000	S'000	S'000	S'000
Departmental				
Expenses	(24,787)	(23,893)	(24,795)	(23,893)
Own-source income	1,796	1,229	1,796	1,229
Net cost of outcome delivery	(22,991)	(22,664)	(22,999)	(22,664)

Note 18: Net Cash Appropriation Arrangements

	2013 $'000	2012 $'000
Total comprehensive income (loss) less depreciation/amortisation expenses previously funded through revenue appropriations[1]	**310**	(246)
Plus: depreciation/amortisation expenses previously funded through revenue appropriation	**(1,502)**	(1,110)
Total comprehensive loss - as per the Statement of Comprehensive Income	**(1,192)**	(1,356)

1. From 2010-11, the Government introduced net cash appropriation arrangements, where revenue appropriations for depreciation/amortisation expenses ceased. Entities now receive a separate capital budget provided through equity appropriations. Capital budgets are to be appropriated in the period when cash payment for capital expenditure is required.

Appendices

Appendix A: Other required reporting

Work health and safety

As a result of the previous year's focus on embedding the *Work Health and Safety Act 2011* (WHS Act) within our existing management system and supporting framework, it has been a period of major activity for our dedicated WHS Committee. Significant achievements over this period include:

- implementation of the Health and Wellbeing for Work policy
- implementation of two risk management procedures
- continued updating of our Safety Investigation Quality System
- completion of an internal WHS staff survey
- five Health and Safety Representatives recertified
- facilitation of Helicopter Winch Training for investigators
- transition to a new Employee Assistance Provider.

ATSB staff members have expressed continued confidence in the agency's ongoing commitment to provide a safe workplace, as demonstrated by the following staff census results:

- *The people in my work group are committed to workplace safety*—96 per cent positive
- *My supervisor is committed to workplace safety*—98 per cent positive.

During 2012–13, there was one compensation claim submitted to Comcare, relating to a slip, trip and fall occurrence. There were no reportable incidents under the WHS Act.

In terms of other wellbeing indicators, approximately 10 per cent per cent of staff accessed the employee assistance program, and the unscheduled absence rate per full time employee has risen slightly from 7.25 to 8.4 days.

Freedom of information

The following information explains how to request access to documents held by the ATSB under the *Freedom of Information Act 1982* (FOI Act), which records the ATSB holds, and the arrangements that the ATSB has in place for outside participation.

Agencies subject to the FOI Act are required to publish information to the public as part of the Information Publication Scheme (IPS). This requirement is in Part II of the FOI Act and has replaced the former requirement to publish a section 8 statement in an annual report. Each agency must display on its website a plan showing what information it publishes in accordance with the IPS requirements.

Detailed information about the FOI Act is available via the Office of the Australian Information Commissioner (OAIC) website at www.oaic.gov.au and the ComLaw website at www.comlaw.gov.au

How to lodge a request for information

Information about how to make an application under the FOI Act can be found on the ATSB's website at www.atsb.gov.au/about_atsb/foi.aspx

A request for access to documents made under the FOI Act must:

- be in writing
- state that the request is an application for the purposes of the FOI Act
- provide enough information to enable the document(s) sought to be identified
- give details of how notices under the FOI Act may be sent (for example, by providing an electronic address to which notices may be sent by electronic communication).

Submission of FOI requests, or enquiries about access, should be directed to:

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

Phone: 02 6274 6488
Fax: 02 6247 3117
Email: FOI@atsb.gov.au

Charges

There are no application fees payable to lodge an FOI request. The ATSB may impose a charge for the work involved in providing access to document(s) to a request under the FOI Act. These charges are imposed in accordance with the FOI Act and the Freedom of Information (Charges) Regulations. These charges may relate to the time spent searching for and retrieving relevant document(s), decision-making time, photocopying and other costs. The FOI Act also provides that the first five hours of decision-making time is waived. 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.

In some circumstances, charges associated with the processing of the request may be remitted. Should the applicant wish to seek remission of the charges, the criteria considered by the ATSB include whether the:

- payment of the charges or part of the charges would cause financial hardship to the applicant or a person on whose behalf the application was made
- giving of access to document(s) 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 charges. Requests for the remission of the charges should be forwarded to the Freedom of Information Coordinator.

It may not be possible to obtain access to all the documents sought in an FOI request. Access is limited by exemptions such as Section 38—secrecy provisions of the FOI Act.

It is important to note that the ATSB is required to perform its functions under Section 12AA of the 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.

Freedom of information activity in 2012–13

The ATSB received 20 new requests for access to documents under the FOI Act in 2012–13.

Table 7 provides details of ATSB Freedom of Information activity for 2012–13.

The ATSB became a separate statutory agency on 1 July 2009.

Table 7: Freedom of information activity

ACTIVITY IN 2012–2013	NUMBERS
Requests	
On hand at 1 July 2012 (A)	5
New requests received (B)	20
Requests withdrawn (C)	6
Requests transferred in full to another agency (D)	0
Requests on hand at 30 June 2013 (E)	4
Total requests completed at 30 June 2013 (A+B-C-D-E)	15
Action on requests	
Access in full	2
Access in part	8
Access refused	5
Access transferred in full	0
Request withdrawn	6
Response times (excluding withdrawn)[3]	
0–30 days	9
31–60 days	5
61–90 days	1
90+ days	0

3 These statistics cannot directly 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 charges and other issues.

Table 7: Freedom of information activity (continued)

ACTIVITY IN 2012–2013	NUMBERS
Internal review	
Requests received	0
Decision affirmed	0
Decision amended	0
Request withdrawn	0
Review by Office of the Australian Information Commissioner	
Applications received	0
Administrative Appeal Tribunal (AAT) review of FOI decisions	
Applications received	0

Records the ATSB holds

The ATSB holds records such as:

- human and financial resource management records
- briefing papers and submissions prepared for ministers, parliamentary secretaries, parliamentary committees, 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
- internal treaties, memoranda 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.

To view a list of manuals and other documents the ATSB uses when making decisions or recommendations that affect the public, visit the ATSB website at www.atsb.gov.au Under 8C of the FOI Act, exempt matter is not required to be published. The ATSB reserves the right to delete exempt matter from its information prior to providing access.

For further information about ATSB documents, please contact ATSB enquiries staff either by telephone on 1800 020 616 or by email to atsbinfo@atsb.gov.au

A digest of the personal information the ATSB holds is available via the OAIC website at www.privacy.gov.au/government/digests

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.

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.

Advertising and market research

During 2012–13 the ATSB spent $2,332 on recruitment advertising and $41,250 on general advertising. The ATSB expended $17,250 on market research. The market research was a client satisfaction survey for the purpose of assessing the ATSB's performance against the indicators set out in the Portfolio Budget Statements. The ATSB did not conduct any advertising campaigns during 2012–13.

Ecologically sustainable development and environmental performance

The ATSB is fully committed to the principles of Ecologically Sustainable Development. The nature of its work as Australia's national transport safety investigator with a focus on the investigation of transport accidents, research into transport safety and dissemination of safety information means that the ATSB's commitment is expressed through its day to day activities within its offices.

The ATSB operates under the Energy Efficiency in Government Operations (EEGO) policy and reports annual levels of energy use and emissions to meet the requirements of the policy via the Department of Climate Change and Energy Efficiency's Online System for Comprehensive Activity Reporting.

The ATSB responds to the National Environment Protection Measures (NEMP) reporting questionnaire 2012–13.

The ATSB participated in Earth Hour in March 2013 by shutting down power for an hour in the Canberra and interstate offices.

The ATSB continues to follow its Data Centre Optimisation Policy Targets (DCOT) plan, adopted in 2012, which aims to drive down the costs of the ATSB's data centre and reduce data centre CO2 emissions to help the Government meet its efficiency targets.

The ATSB has limited its energy use and associated emissions through various initiatives that focus on improving the energy efficiency of the property portfolio—for example:

- operating a virtualised IT server environment
- ensuring that desktop IT equipment uses energy saving policies such as automatic turn-off for monitors and hard drives after periods of inactivity (30 minutes and three hours respectively)
- setting each printer defaults to (mono) black and double-sided printing
- using photocopy paper containing 60 per cent recycled paper for internal use
- active recycling of paper waste
- promotion of the separation of general waste into recyclable and non-recyclable items before disposal
- promotion of video conferencing as an alternative to travel, where practicable
- use of motion-sensor lighting in offices
- reducing the effect of direct sunlight on air-conditioning systems by installing blinds or tinting where appropriate.

Grant programs

The ATSB did not provide any grants in 2012–13.

Changes to disability reporting in annual reports

Since 1994, Commonwealth departments and agencies have reported on their performance as policy adviser, purchaser, employer, regulator and provider under the Commonwealth Disability Strategy. In 2007–08, reporting on the employer role was transferred to the Australian Public Service Commission's State of the Service Report and the APS Statistical Bulletin. These reports are available at www.apsc.gov.au. From 2010–11, departments and agencies have no longer been required to report on these functions.

The Commonwealth Disability Strategy has been overtaken by a new National Disability Strategy 2010–2020 which sets out a ten year national policy framework to improve the lives of people with disability, promote participation and create a more inclusive society. A high level two-yearly report will track progress against each of the six outcome areas of the Strategy and present a picture of how people with disability are faring. The first of these reports will be available in 2014, and will be available at www.fahcsia.gov.au.

The Social Inclusion Measurement and Reporting Strategy agreed upon by the Government in December 2009 will also include some reporting on disability matters in its regular *How Australia is Faring* report and, if appropriate, in strategic change indicators in agency Annual Reports. More detail on social inclusion matters can be found at www.socialinclusion.gov.au.

Correction to ATSB Annual Report 2011–12

Page 80: The amounts shown for legal expenditure were incorrect. The total cost was $306, 253.27 comprising $22, 000 on external legal services and $282, 253.27 on internal services.

Page 82: Reported on coronial findings in relation to an accident (AO-2004-02797) that occurred on 28 July 2004 near Benalla in Victoria involving a Piper PA31T aircraft. It incorrectly stated that one person had been fatally injured in that accident. The entry should have stated that six persons were fatally injured in the accident.

Appendix B: Agency resource statement 2012–13

		Actual available appropriation for 2012-13 $'000 (a)	Payments made 2012-13 $'000 (b)	Balance remaining 2012-13 $'000 (a) – (b)
Ordinary Annual Services[1]				
Departmental appropriation[2]		31,767	23,893	7,874
Total		**31,767**	**23,893**	**7,874**
Total ordinary annual services	**A**	**31,767**	**23,893**	
Other services[3]				
Departmental non-operating				
Equity injections		1,181	1,181	-
Total				**-**
Total other services	**B**	**1,181**	**1,181**	
Total net resourcing and payments for the Australian Transport Safety Bureau		**32,948**	**25,074**	

[1] Appropriation Bill (No.1) 2012-13. This includes Prior Year departmental appropriation and S.31 relevant agency receipts.
[2] Includes an amount of $0.619m in 2012-13 for the Departmental Capital Budget. For accounting purposes this amount has been designated as 'contributions by owners'.
[3] Appropriation Bill (No.2) 2012-13.

Expenses for Outcome 1

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.	Budget* 2012-13 $'000 (a)	Actual Expenses 2012-13 $'000 (b)	Variation 2012-13 $'000 (a) – (b)
Program 1.1: Australian Transport Safety Bureau			
Departmental expenses			
Departmental appropriation [1]	22,949	22,738	211
Expenses not requiring appropriation in the Budget year[2]	2,645	2,049	596
Total for Program 1.1	25,594	24,787	807
Total expenses for Outcome 1	25,594	24,787	807

	2011-12	2012-13
Average Staffing Level (number)	119	118

[1] Departmental Appropriation combines "Ordinary annual services (Appropriation Bill No. 1)" and "Revenue from independent sources (s31)".
[2] Expenses not requiring appropriation in 2012-13 is made up of depreciation and amortisation expense, the value of services that the ATSB received free of charge from the Victorian Office of the Chief Investigator, the NSW Office of Transport Investigations and the Australian National Audit Office, write-down and impairment of assets and losses from asset sales.

Appendix C: Glossary and abbreviations list

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.
Airworthiness Directive	A notification to owners and operators of certified aircraft that a known safety deficiency with a particular model of aircraft, engine, avionics or other system exists and must be corrected. If a certified aircraft has outstanding airworthiness directives that have not been complied with, the aircraft is not considered airworthy.
Amateur-built aircraft	Aircraft not built in a factory but for the user's personal use or recreation. May include ultra-light, original design, plans built or kit built or experimental aircraft.
AMSA	Australian Maritime Safety Authority
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 selected 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.
CASA	Civil Aviation Safety Authority
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 regular public transport (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.
Complex investigations	Investigations rated at level 1, 2, or 3 in accordance with the ATSB's rating system.

Contributing safety factor	A safety factor that, if it had not occurred or existed at the relevant time, would result in: • The occurrence probably not having occurred • Adverse consequences associated with the occurrence would probably not have occurred or have been as serious, or • Another contributing safety factor would probably not have occurred or existed.
COAG	Council of Australian Governments
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.
ETOPS	Extended Twin Operations–Rule that allows twin-engined airliners to fly long-distance routes that were previously off-limits to twin-engined aircraft. There are different levels of ETOPS certification, each allowing aircraft to fly on routes that are a certain amount of flying time away from the nearest suitable airport.
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 that results in death within 30 days of the accident.
Flight data 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'.
ICAO	International Civil Aviation Organization
IMO	International Maritime Organization

Immediately reportable matter	A serious transport safety matter that covers occurrences such as: • accidents involving death • serious injury • destruction or serious damage of vehicles or property, or • 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.
ITSAP	The Australian Government's Indonesian Transport Safety Package
Less complex investigations	Those investigations rated at level 5 under the ATSB's rating scheme.
LOS	Loss of separation
LOSA	Loss of separation assurance
Minor injury	An injury sustained by a person in an accident that was not a fatal or serious injury and does not require hospitalisation.
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.
ONRSR	Office of the National Rail Safety Regulator
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.
Pilotage	Use of licensed coastal pilots to guide ships through designated areas.
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.
REEFVTS	Great Barrier Reef and Torres Strait Vessel Traffic Service, a coastal Vessel Traffic Service which has been put in place by the Australian and Queensland Governments to improve safety and efficiency of vessel traffic and to protect the environment.

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
Reportable safety concern	Any matter that endangers or could endanger a transport vehicle
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 a 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
Serious incident	An incident involving circumstances indicating that an accident nearly occurred.

Serious Injury	Serious injury means an injury that requires, or would usually require, admission to hospital within 7 days after the day when the injury is suffered.
Short investigation	Short, factual, office-based investigations or less complex safety occurrences rated at level 5 under the ATSB's rating scheme.
SIIMS	Safety Investigation Information Management System
Spectral analysis	Detailed analysis of the pilot's radio transmissions and the background engine sounds and warnings.
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: • the transport vehicle is destroyed • the transport vehicle is damaged • the transport vehicle is abandoned, disabled, stranded or missing in operation • a person dies as a result of an occurrence associated with the operation of the transport vehicle • a person is injured or incapacitated as a result of an occurrence associated with the operation of the transport vehicle • any property is damaged as a result of an occurrence associated with the operation of the transport vehicle • the transport vehicle is involved in a near-accident • the transport vehicle is involved in an occurrence that affected, or could have affected, the safety of the operation of the transport vehicle • something that occurred that affected, is affecting, or might affect transport safety.
TSI Act	*Transport Safety Investigation Act 2003*

Appendix D: List of requirements

REF*	PART OF REPORT	DESCRIPTION	REQUIREMENT	PAGE NO.
8(3) & A.4		Letter of transmittal	Mandatory	i
A.5		Table of contents	Mandatory	iii–iv
A.5		Index	Mandatory	171
A.5		Glossary	Mandatory	162
A.5		Contact officer(s)	Mandatory	vi
A.5		Internet home page address and Internet address for report	Mandatory	vi
9	**Review by Secretary**			
9(1)		Review by departmental secretary	Mandatory	2–6
9(2)		Summary of significant issues and developments	Suggested	4–5
9(2)		Overview of department's performance and financial results	Suggested	40–41
9(2)		Outlook for following year	Suggested	5
9(3)		Significant issues and developments—portfolio	Portfolio departments —suggested	N/A
10	**Departmental Overview**			
10(1)		Role and functions	Mandatory	8–13
10(1)		Organisational structure	Mandatory	14
10(1)		Outcome and program structure	Mandatory	18
10(2)		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
10(3)		Portfolio structure	Portfolio departments —mandatory	N/A
11	**Report on Performance**			
11(1)		Review of performance during the year in relation to programs and contribution to outcomes.	Mandatory	24–26
11(2)		Actual performance in relation to deliverables and KPIs set out in PB Statements/PAES or other portfolio statements.	Mandatory	24–26
11(2)		Where performance targets differ from the PBS/ PAES, details of both former and new targets, and reasons for the change.	Mandatory	N/A

REF*	PART OF REPORT	DESCRIPTION	REQUIREMENT	PAGE NO.
11(2)		Narrative discussion and analysis of performance	Mandatory	27–30
11(2)		Trend information	Mandatory	31–32
11(3)		Significant changes in nature of principal functions/services	Suggested	33–37
11(3)		Performance of purchaser/provider arrangements	If applicable, suggested	N/A
11(3)		Factors, events or trends influencing departmental performance	Suggested	2–6 31–32
11(3)		Contribution of risk management in achieving objectives	Suggested	89–90 100
11(4)		Social inclusion outcomes	If applicable, mandatory	160
11(5)		Performance against service charter customer service standards, complaints data, and the department's response to complaints	If applicable, mandatory	88, 168
11(6)		Discussion and analysis of the department's financial performance	Mandatory	40–41
11(7)		Discussion of any significant changes from the prior year, from budget or anticipated to have a significant impact on future operations.	Mandatory	N/A
11(8)		Agency resource statement and summary resource tables by outcomes	Mandatory	161
12	**Management and Accountability**			
	Corporate Governance			
12(1)		Agency heads are required to certify that their agency complies with the Commonwealth Fraud Control Guidelines.	Mandatory	168
12(2)		Statement of the main corporate governance practices in place	Mandatory	98–101
12(3)		Names of the senior executive and their responsibilities	Suggested	15–17
12(3)		Senior management committees and their roles	Suggested	98–99
12(3)		Corporate and operational planning and associated performance reporting and review	Suggested	98–101
12(3)		Approach adopted to identifying areas of significant financial or operational risk	Suggested	100
12(3)		Policy and practices on the establishment and maintenance of appropriate ethical standards	Suggested	101

REF*	PART OF REPORT	DESCRIPTION	REQUIREMENT	PAGE NO.
12(3)		How nature and amount of remuneration for SES officers is determined	Suggested	102
	External Scrutiny			
12(4)		Significant developments in external scrutiny	Mandatory	106–108
12(4)		Judicial decisions and decisions of administrative tribunals	Mandatory	106–108
12(4)		Reports by the Auditor-General, a Parliamentary Committee or the Commonwealth Ombudsman	Mandatory	106–108
	Management of Human Resources			
12(5)		Assessment of effectiveness in managing and developing human resources to achieve departmental objectives	Mandatory	101
12(6)		Workforce planning, staff turnover and retention	Suggested	102
12(6)		Impact and features of enterprise or collective agreements, individual flexibility arrangements (IFAs), determinations, common law contracts and AWAs	Suggested	102
12(6)		Training and development undertaken and its impact	Suggested	104
12(6)		Work health and safety performance	Suggested	154
12(6)		Productivity gains	Suggested	40–41
12(7)		Statistics on staffing	Mandatory	102
12(8)		Enterprise or collective agreements, IFAs, determinations, common law contracts and AWAs	Mandatory	102
12(9) & B		Performance pay	Mandatory	102
12(10)-(11)	Assets management	Assessment of effectiveness of assets management	If applicable, mandatory	104
12(12)	Purchasing	Assessment of purchasing against core policies and principles	Mandatory	105
12(13)-(24)	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.	Mandatory	105

REF*	PART OF REPORT	DESCRIPTION	REQUIREMENT	PAGE NO.
12(25)	Australian National Audit Office Access Clauses	Absence of provisions in contracts allowing access by the Auditor-General	Mandatory	106
12(26)	Exempt contracts	Contracts exempt from the AusTender	Mandatory	106
13	Financial Statements	Financial Statements	Mandatory	109–152
	Other Mandatory Information			
14(1) & C.1		Work health and safety (Schedule 2, Part 4 of the *Work Health and Safety Act 2011)*	Mandatory	154
14(1) & C.2		Advertising and Market Research (Section 311A of the *Commonwealth Electoral Act 1918)* and statement on advertising campaigns	Mandatory	158
14(1) & C.3		Ecologically sustainable development and environmental performance (Section 516A of the *Environment Protection and Biodiversity Conservation Act 1999*)	Mandatory	159
14(1)		Compliance with the agency's obligations under the *Carer Recognition Act 2010*	If applicable, mandatory	N/A
14(2) & D.1		Grant programs	Mandatory	160
14(3) & D.2		Disability reporting—explicit and transparent reference to agency-level information available through other reporting mechanisms	Mandatory	160
14(4) & D.3		Information Publication Scheme statement	Mandatory	154
14(5) & D.4		Spatial reporting—expenditure by program between regional and non-regional Australia	If applicable, mandatory	160
14(6)		Correction of material errors in previous annual report	If applicable, mandatory	160
E		Agency Resource Statements and Resources for Outcomes	Mandatory	161
F		List of Requirements	Mandatory	167–170

* The reference is to the location of the item in the requirements—e.g., 'A.4" refers to the fourth item in Attachment A.

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Australian Government

Australian Transport Safety Bureau

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Australia's national transport safety investigator

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