

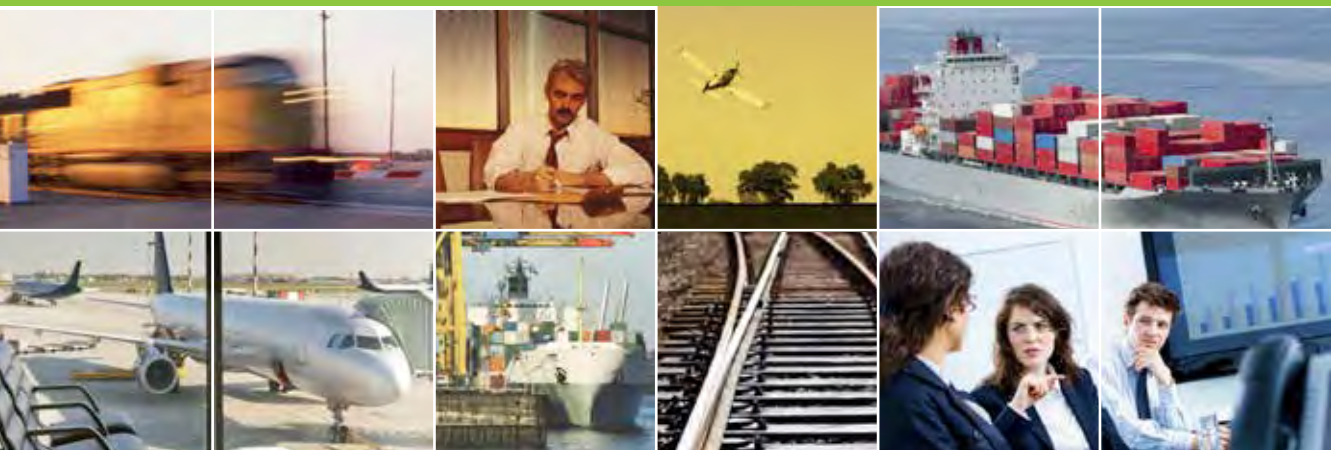


Australian Government

Australian Transport Safety Bureau

Annual Report

2011 – 12



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Australian Transport Safety Bureau



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Australian Government
Australian Transport Safety Bureau

Chief Commissioner

Canberra
 2600

3 October 2012

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

Dear 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 2012.

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 in July 2012 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

Martin Dolan
 Chief Commissioner/CEO

Noel Hart
 Commissioner

Carolyn Walsh
 Commissioner

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ABN 69 0128887

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Introduction

The Australian Transport Safety Bureau (ATSB) 2011–12 Annual Report outlines performance against the outcome and program structure in the 2011–12 Infrastructure and Transport Portfolio Budget Statements.

Guide to the report

Section 1	The Chief Commissioner's review for 2011–12 and includes the ATSB's major achievements in 2011–12 and its focus for 2012–13.
Section 2	Overviews of the ATSB role, function, organisational structure, outcome and program structure and executive profiles
Section 3	ATSB's performance against the ATSB's policy outcomes and programs
Section 4	Descriptions of safety investigations that the Chief Commissioner believes raise significant issues in transport safety as required by section 63 of the <i>Transport Safety Investigation Act 2003</i>
Section 5	Transport safety statistics
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Section 7	A feature section on our technical capability including case studies
Section 8	Management and accountability in the ATSB
Section 9	The audited financial statements of the ATSB
Section 10	Other reporting as required under legislation and the 2011–12 <i>Requirements for Annual Reports for Departments, Executive Agencies and FMA Act Bodies</i> issued in July 2012
Section 11	Contains the glossary and abbreviations list, the list of requirements and the subject index.

Other sources of information

Annual reports are available in printed form from more than 40 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/e-government/service-improvement-and-delivery/publishing-information/lds.html

This report is also available from our website at www.atsb.gov.au. It is usually available online once it has been tabled in Parliament.

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 change over time due to legislative, policy and other developments.

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Chief Commissioner's review 2011–12

This was the third year of the ATSB in its current form as a fully independent agency within the Infrastructure and Transport portfolio. The ATSB now has well developed business systems and governance arrangements to support its activities as Australia's independent transport safety investigator. Our solid underpinnings have enabled us to expand our safety research, analysis and education functions.

At year's end we had 56 larger aviation investigations on hand which represents a stable workload. This year only four of those investigations are over one year old, which demonstrates that we have reached a sustainable level of activity that allows us to meet our targets for timely investigation while maintaining the high quality of our work. The number of investigations in marine and rail has remained stable with 10 and 14 investigations outstanding.

Our short investigations have become a substantial component of our work. We released 90 short investigation reports in the past year. 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. In addition, although many of these investigations examine occurrences that are common and for which the underlying factors are well known, they serve to enhance the quality of the data held by the ATSB and act as a safety net to identify situations where more detailed or extensive investigation may be warranted.

This year we had a strong focus on engaging with our stakeholders and working even harder to disseminate our safety messages to ensure that they are understood and are acted upon. Our stakeholder survey gives us confidence that we are heading in the right direction but we recognise that we need to get even better at safety communication. This year we ventured into social media, using Twitter to let our stakeholders know about key issues and the release of our reports. This has proved very effective.

Aviation

The aviation investigation teams completed 11 complex and 127 less complex (includes 90 short) aviation accident and incident investigations during the past year. As usual several of these were of considerable national and international interest, identifying a number of safety issues that elicited commendable safety action by the relevant parties to reduce risk to the travelling public. These included:

- **AO-2008-070.** Injuries sustained by passengers and crew during the in-flight upset that occurred west of Learmonth, Western Australia on 7 October 2008 and involved a Qantas Airbus A330-303 (A330) aircraft, registered VH-QPA, reinforced the safety benefits of passengers having their seat belts fastened whenever they are seated. The upset resulted from a very rare series of intermittent, incorrect output spikes from one of the aircraft's three air data inertial reference units (ADIRU). These data spikes were not appropriately processed by the aircraft's flight control primary computers (FCPC), which then commanded the aircraft to pitch nosedown. In response to this accident, the aircraft manufacturer revised the aircraft's operational procedures to manage any repetition of the data spikes in the A330 and the ADIRU manufacturer modified the ADIRU to minimise the risk of a recurrence of the incorrect data spikes. In addition, the aircraft manufacturer incorporated revised software standards into the FCPC to prevent erroneous ADIRU data affecting aircraft pitch control.



Chief Commissioner Martin Dolan

- **AO–2009–012.** The investigation into the tail strike and runway overrun that occurred at Melbourne Airport, Victoria on 20 March 2009 involving an Emirates Airbus A340–541 aircraft, registered A6ERG, confirmed the fallibility of any system that relies on human input, particularly in the face of in-cockpit distractions. In this case, inadvertent and incorrect data entry into the aircraft's performance systems could have resulted in the loss of the aircraft. Of importance, the investigation found that the use of erroneous take-off performance parameters was not new, and has occurred over time across a range of aircraft types, operators, operations and locations. Equally significant was that degraded take-off performance was generally not detected by flight crew until well into the take-off run (if at all), and that the take-off performance philosophy in civil transport aircraft did not require crews to monitor their aircraft's acceleration or provide a required reference acceleration. In response, the operator and aircraft manufacturer undertook a number of procedural and equipment based safety actions. This included the commencement of the development of software that will detect discrepancies between the take-off speeds and check that the aircraft has sufficient runway length to support a takeoff.
- **AO–2010–019.** The report into the crash of an Air North Embraer Brasilia aircraft, registration VH–ANB at Darwin Airport, Northern Territory highlighted the importance of the action by the Civil Aviation Safety Authority (CASA) to mandate the use of simulators for non-normal flying training and proficiency checks in larger aircraft. CASA has subsequently advised of changes to the simulator-based training requirements for such aircraft that will come into effect on 1 April 2013 and encouraged air operators to prepare early for the new rules. The flight had been for the purpose of revalidating the command instrument rating of the pilot under check and was under the command of a training and checking captain, who occupied the copilot's seat. The takeoff included a simulated engine failure which led to a loss of control and the deaths of the two pilots.
- In aviation, we are continuing our work to understand and mitigate the number of breakdowns of separation (BOS) and losses of separation assurance (LOSA) in air traffic control. Although the rate of these occurrences this year was broadly reflective of earlier years, we continue to examine individual occurrences in order to prevent their recurrence, but have also initiated a safety research investigation to bring the results of completed investigations together and compare their results with each other and the overall occurrence data set. To date, no significant, systemic safety issues have been identified as a result of our ongoing assessment of BOS/LOSA occurrences. If they had, the ATSB would already have drawn it to the attention of Airservices Australia or the Department of Defence so that they could begin safety action in response. If any significant, systemic safety issue is identified in the future, it will immediately be brought to these organisations' attention.

Marine

The marine investigation team completed 10 investigations during the year, two of which were particularly significant for safe work in and around ships.

- **MO–2010–002** The report into the death of a stevedore who was crushed between two containers during loading operations on board the container ship *Vega Gotland*, while it was berthed at the Patrick Terminals Port Botany facility identified some very important safety issues for workers handling cargo in loading facilities. The ATSB investigation found that the lashing team leader had placed himself in a position of danger and that when a twistlock foundation unexpectedly failed during the repositioning of the container, he was unable to get clear of the swinging container. The investigation identified that while the dangers of working between a moving container and a fixed object were taught to Patrick Terminals' new employees during their induction training, the issue was not specifically covered or reinforced in the company's safe work instructions, the hazard identification and associated risk control processes nor, in some instances, followed in practice by stevedores on board the ships in the terminal. The ATSB identified safety issues during the investigation and Patrick Terminals undertook extensive work to correct the causal issues in this accident.

- **MO-2010-004** On 16 May 2010, the chief engineer, second mate and fourth engineer of the Isle of Man registered liquefied natural gas tanker *British Sapphire* were injured when the fast rescue boat they were in dropped 18 m to the water while being launched. The second mate and fourth engineer were part of the rescue boat's three crew involved in an attempt to transfer the chief engineer to a police launch for medical evacuation. The investigation determined that, in the process of lowering the rescue boat, the wave compensator mechanism on the fast rescue boat's davit was activated early, before the rescue boat had reached the water. A fail-safe interlock device should have prevented this by placing the wave compensator into standby mode, only becoming operational when the fast rescue boat was waterborne. However, the electrical installation of the interlock was incorrect and meant it could not work as designed, allowing the wave compensation unit to operate always and the fast rescue boat to make the uncontrolled descent to the sea. The investigation identified safety issues relating to the commissioning, maintenance, testing, operating instructions and procedures for the fast rescue boat's wave compensator and its safety interlock system. Further safety issues were identified relating to the job hazard analysis for the use of the fast rescue boat, crew resource management principles and approved training courses for fast rescue boats. During the investigation, the ATSB was satisfied that the safety action taken by BP Shipping and Davit International addressed the identified safety issues. However, the ATSB remained concerned about the adequacy of training in the use of wave compensation units on fast rescue boat davits and released a safety advisory notice to national and international maritime training institutions about this safety issue.

Rail

The Rail Investigation Team completed 12 investigations during the year. Two of these highlighted significant safety issues.

- **RO-2010-004** In May 2010 a collision between an XPT passenger train and a track-mounted excavator near Newbridge, NSW resulted in the death of the excavator operator. The workers were operating under Track Occupancy Authorities (TOA) and had been authorised to occupy and work on the tracks. Neither the Protection Officer (PO) nor the Network Control Officer (NCO) had positively identified the location and type of worksite. Their actions were influenced by a deficiency in the TOA form, in that no provision was provided to record this critical information. Both the PO and the NCO had wrongly assumed that the train had already passed beyond the limits of the worksite. The problem was compounded when the workers accessed the danger zone before the PO had put in place the normal site protection measures such as detonators and flags. As a result, the Australian Rail Track Corporation (ARTC) reinforced the rules and procedures for the issuing of TOAs. The ARTC also implemented a revised TOA form that records critical information about the location and type of worksite.
- **RO-2010-015** A freight train 1MP5 derailed on the Trans-Australian Railway Line at Goddards, approximately 240 km east of Kalgoorlie in Western Australia. The derailment occurred within a recently constructed crossing loop on a section of track managed by the ARTC. Train 1MP5 consisted of two locomotives hauling two crew vans and 49 wagons. There were no injuries as a result of the derailment but 23 wagons derailed, many of which were significantly damaged (including all triple-deck car carrier wagons) and about 700 m of track required replacement. The ATSB determined that the derailment was a result of flange climb initiated by a track misalignment which probably grew as train 1MP5 traversed it, initiating the derailment. Factors that contributed to the misalignment were the high ambient temperature, inadequately de-stressed rail and insufficient ballast through the derailment site. The ATSB also found that the ARTC's quality assurance processes used during the construction of the crossing loop could be improved.

Safety priorities

In setting the ATSB's safety priorities for the coming year, the ATSB has identified the following main risk areas that need ongoing and heightened attention from the Australian transport community:

- **Avoidable aviation accidents**—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 of approach to land**—There is a worrying number of cases where stability is not adequately assessed or uncommon manoeuvres are mishandled during an aircraft's approach to land.
- **Aircraft performance calculations and 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 in the vicinity of 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 are 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.
- **Reporting of accidents, incidents and transport safety concerns**—An ATSB investigation during 2011–12 into under-reporting of wirestrikes revealed that there was around 40 per cent under-reporting of incidents and accidents. While there is 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 associated with GA operations.
- **Rail safe working irregularities**—We continue to draw the attention of track maintenance organisations to the need for adherence to rules and procedures, improved procedures and training and effective communication between train controllers, train crew and track workers.
- **Unsafe marine work practices**—we are still seeing risk to life from unsafe work practices in or around ships and loading areas. We will continue to focus on this area to improve the safety of work at sea.

Implementation of the National Rail Safety Reforms

The implementation of the ATSB's expanded national role in rail transport safety, as agreed in August 2011 under the Intergovernmental Agreement (IGA) on Rail Regulation and Investigation Reform, is on track to begin operation from January 2013. The ATSB, as Australia's national safety investigator, will assume primary responsibility for rail investigations across Australia as part of a broader national transport reform process. This will shift our workload in the rail mode considerably, as we expect to receive a far greater number of notifications of rail incidents and accidents than at present, and with a greater emphasis on passenger trains.

As implementation progresses we will work collaboratively with our state and territory colleagues to ensure adequate resources are available for the task. This will allow us to develop the capacity to respond quickly and efficiently to safety events as they occur.

Outlook for 2012–13

This year we plan to continue our work across a range of fronts we have spelled out in our annual plan, participating actively in the transport reform agenda, seeking improvements in the efficiency and effectiveness of our investigations, strengthening our relationships with stakeholders and sharing safety information. We continue to ensure that our safety research and data analysis is world class with the aim of identifying and responding to emerging trends in safety.

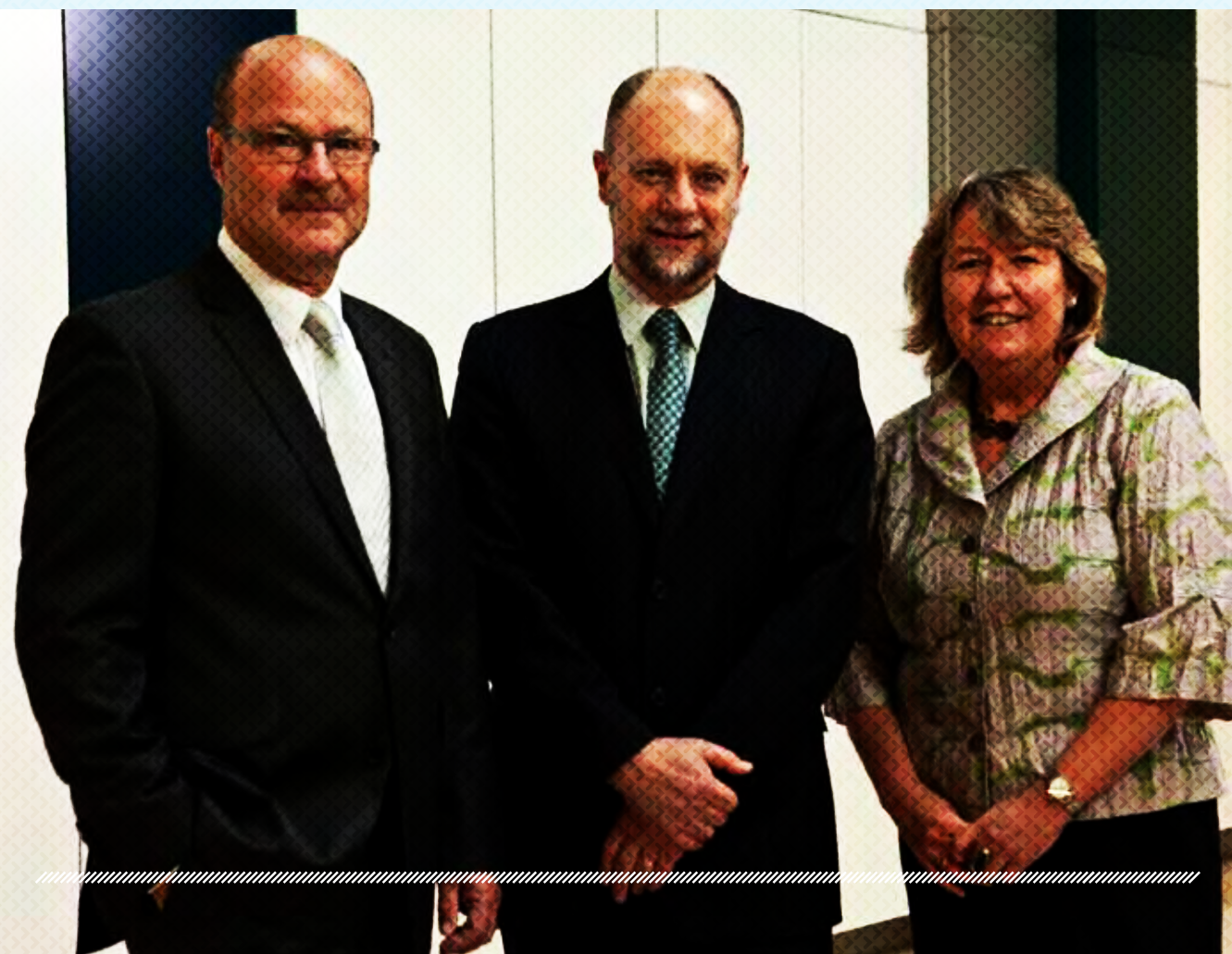
We will also continue to engage with our neighbours in the region and to be an active and constructive player in the International Civil Aviation Organization and the International Maritime Organization and other international and regional forums that have a role in transport safety. And as always, we must remain alert and prepared for a major accident, testing and improving our preparedness.

During the forthcoming year we will face significant financial constraints as we adapt to the Government's efficiency dividend and find ways to deliver the high quality expected by the Government and the Australian public within the constraints of the resources made available to us. Our expanding role in the rail sector will require us to work smarter and to allocate resources carefully.

Finally, I must once again thank the investigation and supporting staff of the ATSB whose efforts and expertise consistently enable us to provide our essential safety service to the Australian travelling public.

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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:

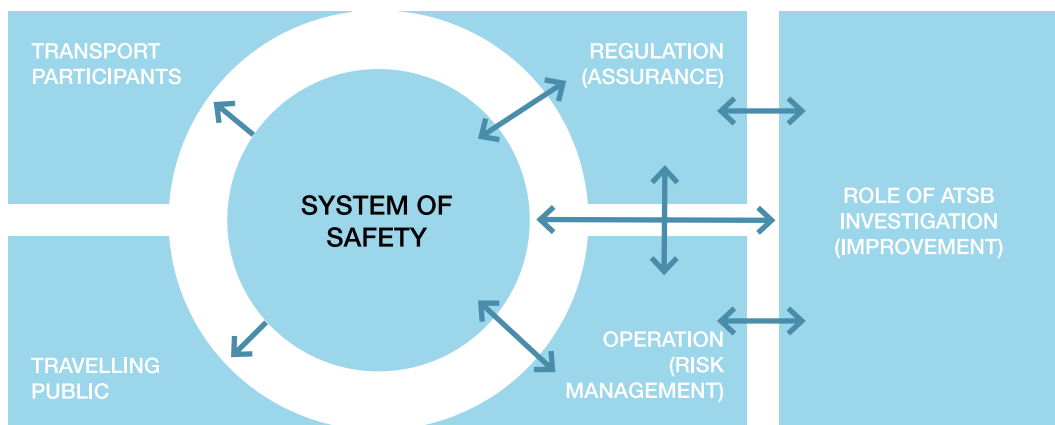
- Department of Infrastructure and Transport
- Australian Maritime Safety Authority
- Australian Transport Safety Bureau
- Civil Aviation Safety Authority
- Airservices Australia
- National Transport Commission.

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

Our role

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

ATSB's success in its role of improving safety is founded on 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.

Aviation function

The ATSB Aviation Safety Investigation Branch investigates accidents and other occurrences involving civil aircraft in Australia. It does so in a manner consistent with Annex 13 of the Convention on International Civil Aviation (Chicago Convention 1944) *Aircraft Accident and Incident Investigation* (Annex 13). The ATSB may also assist in investigations or accidents involving Australian-registered aircraft overseas, or with overseas investigations involving foreign aircraft if an overseas investigating authority seeks assistance and the ATSB has available suitable resources.

The ATSB cooperates with organisations such as CASA, Airservices Australia and aircraft managers 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 (Australian Maritime Safety Authority, 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 nationally and internationally to promote maritime safety in Australia and overseas through the international maritime community, educational institutions and maritime administrations in Australia and overseas. This includes the International Maritime Organization (IMO).

Rail function

The ATSB Rail Safety Investigation Team investigates rail safety occurrences (accidents and incidents) that occur on the Defined Interstate Rail Network (DIRN) under the provisions of the TSI Act. The ATSB has also undertaken rail investigations on intrastate rail networks at the request of state and territory authorities. The ATSB has a mandate from the (then) Australian Transport Council to coordinate the publication of National Rail Occurrence data from data supplied by the various state and territory regulators.

The ATSB works cooperatively with organisations such as the state and territory rail regulators, the Australian Rail Track Corporation (ARTC) and rail operators who are best placed to improve safety. From January 2013, the ATSB will assume primary responsibility as Australia's national safety investigator for rail investigations across Australia as part of a broader national transport reform process.

Short investigations function

The ATSB receives around 15,000 notifications of aviation occurrences each year, 8,000 of which are accidents, serious incidents and incidents. It also receives a lesser number of similar occurrences in the rail and marine transport sectors. It is from the information provided in these notifications that the ATSB makes decisions on whether or not to investigate. While some further information is sought in some cases to assist in making those decisions, resource constraints dictate that a significant amount of professional judgment needs to be exercised.

There are times when more detailed information about the circumstances of an occurrence would have allowed the ATSB to make a more informed decision, both about whether to investigate at all and, if so, what necessary resources would be required (investigation level¹). In addition, further publicly available information

1 For an explanation of investigation levels refer to pages 17 to 19

on accidents and serious incidents increases safety awareness in the industry and enables improved research activities and analysis of safety trends, leading to more targeted safety education.

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. In addition, 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 factual investigations (which are referred to as Level 5 investigations) and produces short summary reports. The summary report is a compilation of the information the ATSB has gathered, sourced from individuals or organisations involved in the occurrences, on the circumstances surrounding the occurrence and what safety action may have been taken or identified as a result. These summary reports are generally released to the public periodically in a Bulletin format.

This year the short investigation team has undertaken short investigations into Rail and Marine incidents in addition to aviation.

Confidential reporting function

Confidential Reporting (REPCON) is a voluntary confidential reporting scheme established under the Air Navigation (Confidential Reporting) Regulations 2006 and Marine (Confidential Marine Reporting Scheme) Regulations 2008. From January 2013, this scheme will be expanded to also service the rail industry.

REPCON allows any person, including from the general public, who has an aviation, marine or (in future) 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.

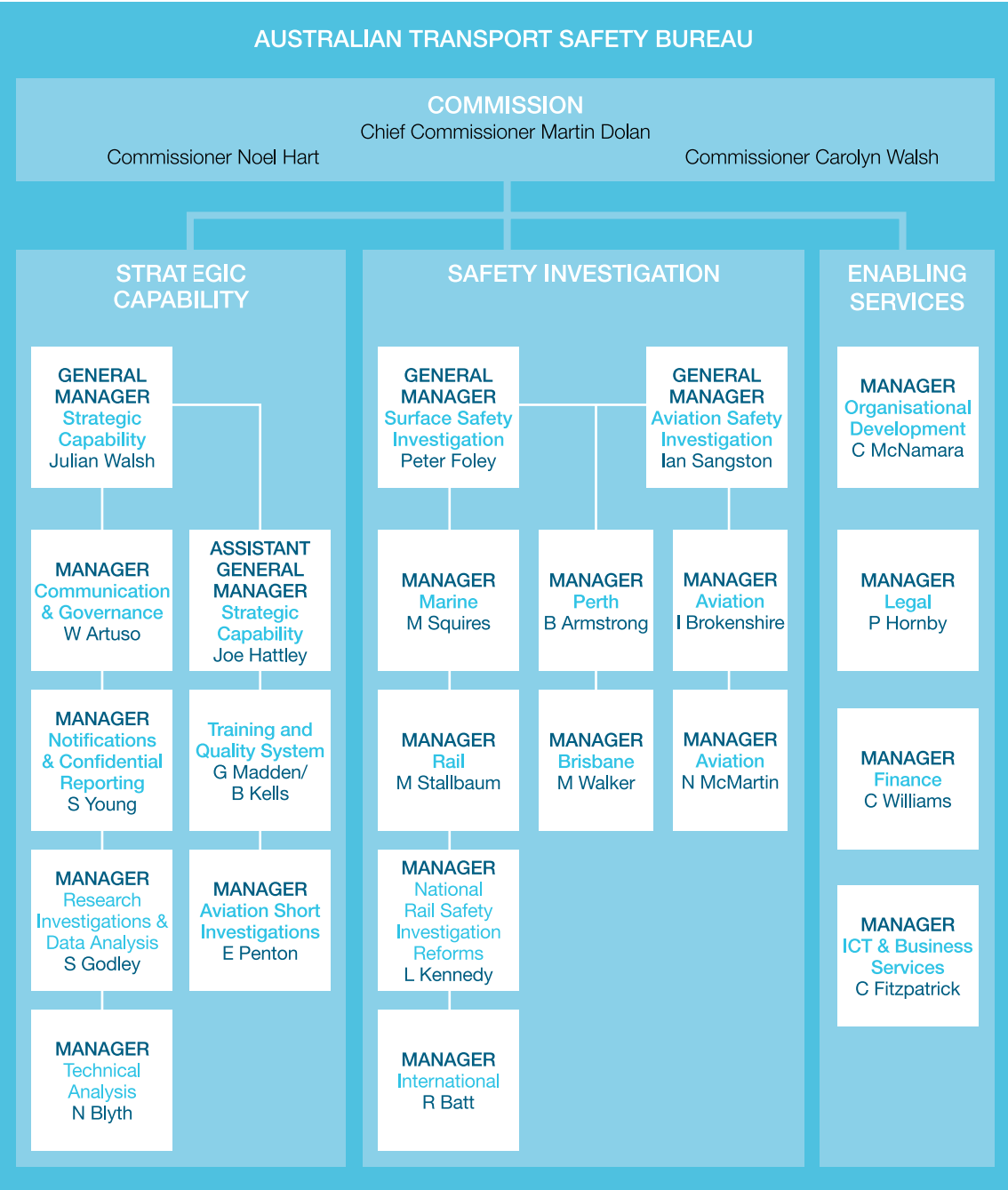
Examples of RSCs include:

- 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.

Our organisation structure as at 30 June 2012



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 30 years of experience in the shipping industry, including 13 years at sea in senior deck officer positions. His qualifications include a Master 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 Committees of both the Oil Companies Marine Forum and the Society of International Gas 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 US and the Marine Oil Response Centre in Australia.

In November 2008, Mr Hart was elected as Chairman of the Australian Shipowners Association, and in July 2009 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 the 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 a member of the NSW WorkCover Authority Board. She is also a member of the Audit and Risk Committees

for NSW government agencies including: the Aboriginal Lands Council (Chair), Compensation Authorities Staff Division (Deputy Chair), Police Integrity Commission (member) and the Public Transport Ticketing Corporation (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 and 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 years of 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 in Defence.

Since joining the ATSB, Mr Walsh has been responsible for a number of significant aviation investigations and has overseen a range of functions within the ATSB. He has served as a Team Leader of 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 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.

We report on progress with the implementation of the National Rail Safety Reforms for which the ATSB has received funding, in a fourth part of the following section on performance. These are incorporated into our Portfolio Budget Statements for 2012–13.

How the ATSB reports

Section 63A of the *Transport Safety Investigation Act 2003* 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 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 2011–12 issued in July 2012.

This Annual Report reports the ATSB performance against the program objectives, deliverables and key performance indicators published in the Infrastructure and Transport 2011–12 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 fare paying mass-passenger operations.

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'). 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

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:

- Level 1** Investigations are likely to involve the majority of ATSB resources in addition to significant external resources, for up to 24 months, and are likely to require additional one-off government funding.
- Level 2** Investigations involve a large number of ATSB (and possibly external) staff, and their scale and complexity may require up to 18 months to complete.
- Level 3** Investigations involve in-the-field activity and several ATSB (and possibly external) staff, and their scale and complexity may take up to 12 months to complete.
- Level 4** Investigations are less complex and require no more than 9 months to complete (they may at times be a 'desktop' exercise requiring no in-the-field activity) and they involve only one or two ATSB staff.
- Level 5** 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 4 to 6 weeks and are published bi-monthly. They require only one ATSB staff member.

For the purpose of reporting against the 2011–12 Portfolio Budget Statements performance measures, the ATSB regards complex investigations as Levels 1–3 and less complex as Levels 4 and 5.

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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 2011–12 Portfolio Budget Statements and the agency's effectiveness in achieving planned outcomes.

Key results

TABLE 1 Summary of ATSB's performance against the key performance indicators set out for Program 1.1 in 2011–12.

KEY PERFORMANCE INDICATOR	TARGET	RESULT
Safety action is taken by stakeholders to address identified critical safety issues. ²	100%	None identified
Safety action is taken by stakeholders to address identified significant safety issues. ³	70% or higher	89% adequately addressed
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 scale).	5 or higher	Survey showed increases in: awareness of the ATSB and transport safety issues the frequency of interaction with ATSB reports, media releases, the website, industry publications and educational material.
Stakeholders are satisfied with the ATSB's performance (as measured through a biennial survey scored on a 7–point scale).	5 or higher	80 % of respondents rated the ATSB's overall performance as good or better
PROGRAM DELIVERABLE	TARGET	RESULT
We will assess, classify and record all accident and incident notifications and confidential safety reports that we receive.	12,500 incident notifications 120 confidential reports	15,344 notifications 209 confidential reports
We will undertake complex investigations based on safety priorities and trends and complete them in a timely manner. ⁴	35 (365 days)	26 investigations completed 7 completed under 365 days
We will undertake less complex investigations based on safety priorities and trends and complete them in a timely manner. ⁴	90 (200 days)	138 investigations completed 73 completed under 200 days
We will undertake research and analysis investigations based on safety priorities and trends.	12	9 published
We will ensure we are prepared for a major accident by reviewing and testing our major accident response and management capabilities.	Annually	Three exercises conducted during the year

² The ATSB defines critical safety issues as those that identify an intolerable level of safety risk.

³ The ATSB defines significant safety issues as ones that identify a level of safety risk that should be reduced to as low a level as is reasonably practicable.

⁴ As measured from the commencement of the investigation to the release of the final report.

PROGRAM DELIVERABLE	TARGET	RESULT
We will comply with relevant international safety investigation obligations based on the Australian legal and governance framework.	100% compliance, except where the Australian Government has noted a variation	There were no breaches of compliance with international requirements recorded during 2011–12
We will publish final investigation reports and make them available through our website.	100%	164 published (100%)
We will measure stakeholder awareness of safety issues as a result of the ATSB's communication and education activities and the level of satisfaction in the delivery of our services.	By 30 September 2011	Survey was conducted in June 2011

The following pages provide more detailed reports of performance in the three major objectives set out in the Portfolio Budget Statements. A fourth section reports on progress with the implementation of the National Rail Safety Reforms for which the ATSB received funding during 2011–12. The fifth section reports on 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 2011–12, as published on page 140 of the Portfolio Budget Statements which relate to the ATSB’s role as the independent no-blame investigator.

Deliverables

- We will assess, classify and record all accident and incident notifications and confidential safety reports we receive
- We will undertake complex investigations based on safety priorities and trends and complete them in a timely manner
- We will undertake less complex investigations based on safety priorities and trends and complete them in a timely manner
- We will ensure that we are prepared for a major accident by reviewing and testing our major accident response and management capabilities

Aviation investigations

In 2011–12, the ATSB initiated 56 Level 4⁵ and above safety investigations from approximately 15,129 accident and incident notifications received (8,592 notifications were classified as aviation occurrences). Of those, four were downgraded and continued as Short Investigations. 48 investigations were completed during the period.

Confidential reports

In 2011–12 the ATSB Confidential Reporting Scheme (REPCON)⁶ received 209 reports, with aviation fatigue and rostering across all facets of the aviation industry high on the list of concerns.

Marine investigations

In 2011–12, the ATSB initiated ten marine transport safety investigations from a total of 157 accident and incident notifications. Ten investigations were completed in this time period, seven of which were completed within 12 months.

The completed investigations during the year involved one collision, four fatalities, three serious injuries and one occurrence each of fire, machinery failure and cargo loss. Those investigations recorded 38 safety actions voluntarily taken by stakeholders in response to 29 identified safety issues. There were no safety recommendations and only one safety advisory notice directed to stakeholders.

At 30 June 2012, the marine investigation team was continuing to investigate 11 marine occurrences.

⁵ See pages 17 to 19 for details of investigation priorities and classifications for definition of investigation levels.

⁶ See page 11 for an explanation of REPCON.

Rail investigations

In 2011–12, the ATSB initiated 14 rail safety investigations on the DIRN under the TSI Act, from a total of 58 rail accident and incident notifications recorded.

Level crossing collisions comprised about twelve per cent of the occurrences reported to the ATSB. The ATSB has focused significant resources on the investigation of these accidents in recent years, and this work, in combination with the actions of the relevant regulatory bodies, may have contributed to a trend of improved safety in this area.

The ATSB completed twelve investigations. The completion times for the twelve final rail investigation reports ranged from 132 to 755 days. This is largely due to the resources that have been required in undertaking a systemic investigation of the Melbourne to Sydney rail corridor.

The completed investigations related to four rolling stock irregularities, four collisions, two Signal Passed at Danger (SPAD) occurrences, one track irregularity, and one derailment due to localised extreme weather conditions.

As of 30 June 2012, the ATSB was continuing to investigate 14 rail safety occurrences.

Short investigations

During 2011–2012, the ATSB released 90 Aviation Short Investigations contained in five Bulletins (Issues 6 to 10), two Rail and two Marine Short Investigations.

In Aviation, the main occurrence types investigated included:

- airspace-related occurrences
- collisions with terrain
- fuel issues
- hard landings
- runway excursions
- engine-related issues, and
- wirestrikes.

The safety messages from these reports covered issues such as:

- wirestrikes—linking to the ATSB's Avoidable Accident report series
- the benefits of Helicopter Underwater Escape Training (HUET) and knowing/practicing emergency procedures
- carburettor icing awareness
- fuel planning/pre-flight planning (weather/fuel/developing personal minima)
- Loss of Tail Rotor Effectiveness (LTE) awareness
- the importance of pre-flight safety briefings
- the limitations of the see-and-avoid principle and reminders to use radios to effectively monitor other traffic
- the potential hazards of conducting practice auto-rotations in helicopters.

'The helmet saved my life'

Source: Aircraft Insurer



VH-FUJ

AO-2012-016: Partial power loss, Schweizer Helicopter Company 300C, VH-FUJ, 25 January 2012

The value of helicopter pilots wearing safety helmets was again highlighted in the accident involving a Schweizer Helicopter Company 300C, registered VH-FUJ (FUJ). On 25 January 2012, FUJ was returning from aerial spraying operations when the pilot noticed a bright flash on the ground in an area of heavily timbered terrain. The pilot turned the aircraft to investigate and descended to about 100 ft above the ground.

Part way through the turn the pilot heard what he described as 'a loud groaning noise' accompanied by an unusual vibration. The pilot immediately lowered the collective, opened the throttle and pushed the cyclic forward to increase airspeed. However, the pilot was unable to arrest the descent and the helicopter impacted the tree canopy before coming to rest between several large trees. The pilot immediately exited the aircraft and described seeing 'steam or smoke' coming from the helicopter.

The pilot was wearing a safety helmet and was uninjured. He reported impact damage to both sides of his helmet and stated that in his opinion, 'the helmet saved my life'.

The helicopter was seriously damaged in a post-impact fire and the cause of the partial power loss was not determined.

A study conducted by the US Army concluded that head injuries occur in approximately 70 per cent of helicopter accidents and that a pilot is six times more likely to suffer a fatal injury in an accident when not wearing a helmet.⁷ A helmet with the visor down will significantly reduce facial and eye injuries resulting from secondary collisions.⁸

The Transportation Safety Board of Canada (TSB) advises that the effects of non-fatal head injuries can range from momentary confusion and inability to concentrate, to a full loss of consciousness. This effectively incapacitates a pilot and compromises a pilot's ability to quickly escape from a helicopter and assist passengers in an emergency evacuation.⁹ This can be particularly pertinent in the case of a post-impact fire, requiring rapid escape from the wreckage.

The full investigation report is available at www.atsb.gov.au/publications/investigation_reports/2012/aair/ao-2012-016.aspx

⁷ Injury in U.S Army Helicopter Crashes October 1979–September 1985 (1989) *The Journal of Trauma*, 29(4), 415–423

⁸ Helicopter Safety (1998) *Flight Safety Foundation* Vol 24

⁹ TSB Investigation A09A0016

TABLE 2 Summary of Transport Safety Investigations (occurrence, safety issue, and external)
2011–2012

	MODE	JUL–SEP	OCT–DEC	JAN–MAR	APR–JUN	TOTAL
Investigations Commenced	Aviation	17	14	12	12	56
	Marine	1	5	2	2	10
	Rail	5	4	2	3	14
	Short	29	23	21	20	93
Completed investigations	Aviation	10	20	6	11	48
	Marine	4	3	1	3	11
	Rail	2	5	1	4	12
	Short	16	26	22	30	94
Investigations active at the end of the period	Aviation	58	52	58	56	56
	Marine	8	9	10	11	11
	Rail	12	13	14	14	14
	Short	28	41	39	28	28

Preparedness for a major accident

During 2011–12, the ATSB continued preparations to respond to a major transport accident. Significant activities included participation in three airport emergency exercises as follows:

- *Southern Cross*, held on 6 October 2011 at Brisbane Airport. This exercise involved ATSB investigation staff from the Brisbane Regional Office attending the exercise at the airport, establishment of the Major Accident Centre in Canberra and the establishment of a simulated ATSB command centre in Queanbeyan, NSW.
- *High Impact*, held on 19 April 2012 at Adelaide Airport. This exercise involved investigation staff from the Adelaide and Canberra offices attending the exercise at the airport.
- *It's Magic*, held on 9 May 2012 at Gold Coast Airport. This exercise involved ATSB staff from the Brisbane Regional Office participating in a desktop exercise with the relevant agencies.

Feedback and learnings from the exercises are being incorporated into the ATSB Safety Investigation Quality System (SIQS) as part of the ongoing review of that suite of documents.

2. Safety data recording, analysis and research

This section describes the ATSB's performance in achieving the deliverables set out for Program 1.1 in 2011–12, as published on page 141 of the Portfolio Budget Statements which relate to the ATSB's role in undertaking research and analysis.

- 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

In 2011–12, 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. The ATSB has continued to publish aviation research and statistics, and has established a quarterly trend monitoring program reporting to the ATSB Commission. The trend monitoring program identifies types of occurrences and aircraft operations that have increasing trends so that they can be targeted for increased monitoring, research or occurrence investigations by the ATSB, and/or brought to the attention of CASA or industry for possible safety action.

In 2011–12, the ATSB published the first 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 Maritime Safety Authority (AMSA).

The ATSB also compiled statistics about rail occurrences from data supplied by state and territory authorities.

The nine research and analysis reports released in 2011–12 covered a range of topics. They included:

- statistical reports on accident and incident trends in aviation, marine, and rail, and aviation wildlife strikes
- an analysis of safety issues identified in ATSB occurrence investigations in the previous financial year in all three transport modes
- a detailed investigation into aviation wirestrikes and in particular, the level of underreporting of these types of incidents to the ATSB.

The ATSB also continued its pilot education series on avoidable accidents, with two more publications:

- *Starved and exhausted: Fuel management aviation accidents*
- *Accidents involving Visual Flight Rules pilots in Instrument Meteorological Conditions.*

Safety research publications can be found on the ATSB website at www.atsb.gov.au.

3. Fostering safety awareness, knowledge and action

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

- We will publish final investigation reports and make them available on our website
- We will measure stakeholder awareness of safety issues as a result of ATSB's communication and education activities and the level of satisfaction in the delivery of our services
- We will comply with relevant international safety investigation obligations based on the Australian legal and governance framework

Publishing reports

As part of the investigation process, we publish final investigation reports on the ATSB website.

In 2011–12, the ATSB published 164 final investigation reports across the aviation, rail and marine transport modes.

As well as publishing reports on the website, we also 'tweet' to announce the report release (through @atsbinfo) and send an email to our subscription list with a link to the published report.

Measuring stakeholder awareness

In June 2011, the ATSB engaged research agency 'Instinct and Reason' to conduct satisfaction research with ATSB stakeholders across the rail, marine and aviation transport modes. Stakeholder research forms part of the ATSB's Portfolio Budget Statement biennial requirement to measure stakeholder awareness of safety issues as a result of our communication and education activities and the level of satisfaction in the delivery of our services. The main findings of the June 2011 survey revealed that:

- 80 per cent of respondents rated the ATSB's overall performance as good or better
- the ATSB's strengths were our professionalism, transparency and openness, information material and reports
- the areas in which ATSB needed to improve mainly surrounded the timeliness in completing investigations
- there was an increase in awareness of the ATSB and transport safety issues
- there was an increase in the frequency of interaction with ATSB reports, media releases, the website, industry publications and educational material.

Regional engagement

The ATSB has 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 Indonesian Transport Safety Assistance Package (ITSAP) and cooperation with Papua New Guinea (PNG) consistent with the Memorandum of Understanding on Cooperation in the Transport Sector. The ATSB also responds, where possible, to requests for investigation assistance from States in the Asia Pacific region.

At the request of the Civil Aviation Authority of Vanuatu (CAAV), the ATSB assisted in the investigation of the crash of an MD Helicopter Inc. 369D helicopter on 26 August 2011 while conducting sling load operations near a village 183 km north north west of Port Vila, Vanuatu. The pilot, an Australian citizen, was fatally injured. Two other occupants survived. Two ATSB investigators travelled to Vanuatu to assist the CAAV investigation that was conducted in accordance with Vanuatu's laws.

Many countries do not have a well-developed capability to investigate aviation accidents and serious incidents. ICAO believes that the establishment of a regional accident investigation organisation or 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 to assist in the Asia Pacific region by taking a leading role in the ICAO Asia Pacific Regional Aviation Safety Team Accident Investigation Ad-Hoc Working Group.

Indonesia

Between July 2011 and June 2012, the ATSB and the Indonesian National Transportation Safety Committee (NTSC) collaborated on a range of activities under the Indonesian Transport Safety Assistance Package. 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 trainee investigators took part in a 3-month placement at the ATSB as part of a program of training and professional development.

Ongoing collaboration between the ATSB and NTSC flight data recorder laboratories consolidated earlier work in this area. On 9 May 2012, a Russian Sukhoi SuperJet 100 aircraft on a demonstration flight crashed into Mount Salak, near Bogor, Indonesia, killing all 45 people on board. The aircraft's cockpit voice and flight data recorders 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.

On 4 November 2010, a Qantas Airbus A380 returned to Singapore after an uncontained engine failure overhead Batam Island, Indonesia. Annex 13 permits an investigation to be delegated to another State by mutual arrangement, and following discussion, the NTSC delegated the investigation to the ATSB. The ATSB final report of the investigation will be released in the first quarter of calendar year 2013.

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 also provided guidance and mentoring. The ATSB is cooperating with the AIC in the investigation of a number of PNG aviation accidents.

On 13 October 2011, an Airlines PNG Bombardier Dash 8 aircraft, on a flight from Lae to Madang crashed on the banks of the Guabe River, near Madang. The aircraft was carrying 32 people, including two flight crew and two cabin crew. There were four survivors of the crash—the pilot in command, the first officer, one cabin crew member, and one passenger. The crash was PNG's worst aircraft accident since 1994.

On 14 October 2011, the AIC requested ATSB assistance in the form of investigator support and technical advice. In accordance with Annex 13, the ATSB appointed an Accredited Representative and a number of Advisors to assist the AIC investigation. Four ATSB investigators travelled to PNG to work alongside the AIC investigators who responded to the accident. The ATSB also carried out a technical examination of a number of recovered aircraft items, and downloaded and analysed information from the cockpit voice and flight data recorders. ATSB assistance to the AIC investigation is ongoing.

On 11 February 2012, the Prime Minister of PNG requested assistance from the ATSB, via the Australian Prime Minister, with the Commission of Inquiry established to look into the capsizing and sinking of the PNG passenger ferry *Rabaul Queen*. The ferry, with at least 392 people on board, had been lost on the morning of 2 February 2012, off the town of Finschhafen, in bad weather during a voyage from Kimbe to Lae. While 246 people were rescued by merchant ships, at least 142 people lost their lives in the disaster.

On 19 February 2012, two investigators from the ATSB began their assistance to the Commission of Inquiry, which was headed by Australian Judge, Warwick Andrew. Between February and the end of June, the investigators provided advice on the safety aspects of the accident and assisted in the drafting of the Inquiry's final report. The assistance included a number of trips to Port Moresby, Lae and Rabaul for up to 14 days at a time.

The Commission of Inquiry made 34 proposals to improve maritime safety in PNG. On 28 June 2012, the Commission of Inquiry report was handed to the Prime Minister of PNG for consideration and release.

4. Other activities

Implementation of 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

The ATSB is working with the Department of Infrastructure and Transport to contribute to the government's regulatory reform agenda to improve the efficiency, safety, sustainability and competitiveness of the rail and marine industries. The government has previously approved funding to enable the ATSB to prepare for a national role as Australia's no-blame rail safety investigator and to work towards agreement for a similar role in marine transport.

Rail

On 7 December 2009, the Council of Australian Governments (COAG) agreed to the Standing Committee on Transport's advice in relation to the steps necessary to position the ATSB to operate as an enhanced rail investigator. On 19 August 2011, COAG agreed to the Intergovernmental Agreement (IGA) on Rail Safety Regulation and Investigation Reform between the Australian Government and the state and territory governments. The agreement formalises the establishment of a National Rail Safety Regulator, and expansion of the ATSB's role to operate as an enhanced national rail safety investigator, covering corporate rail operators and those engaged in intrastate operations, from January 2013. This enhanced role involves the delivery of investigations in New South Wales and Victoria by the ATSB or existing state investigation agencies, staff of which will be delegated powers under the Commonwealth TSI Act, and the conduct of investigations by the ATSB in the remaining states.

The Transport Safety Investigation Amendment Bill 2012, introduced into Parliament in June 2012, establishes Australia's first national rail safety investigator by tasking the ATSB with responsibility for investigating safety events on all metropolitan passenger and freight rail networks across Australia, in addition to events on the Defined Interstate Rail Network (DIRN).

This national focus will see more investigations conducted across a greater range of safety matters. Ultimately, it will mean improved safety through the sharing and implementation of safety findings across all states and territories.

To achieve this enhanced role, the ATSB is negotiating Collaboration Agreements with existing investigation agencies in New South Wales and Victoria, a Memorandum of Understanding with the Office of the National Rail Safety Regulator and arrangements with other states to fund the expected increase in the number of investigations. Changes to the mandatory reporting requirements for rail notifiable occurrences and a new multi-modal Voluntary and Confidential Reporting Scheme—REPCON for the aviation, maritime and rail industries will also be introduced nationally.

The ATSB's national rail safety investigation role will complement the regulatory function of the new National Rail Safety Regulator. The new *Rail Safety National Law (South Australia) Act 2012* was recently passed by the South Australian Legislative Council on 1 May 2012.

This reform will greatly improve productivity through consistent regulatory and investigation practices between the states and territories. The expansion of the ATSB's activities will provide Australia with a no-blame rail safety investigation framework which equals international best practice models.

Maritime

Similar arrangements are in development for maritime safety investigation. In May 2011, the then Australian Transport Council (ATC) agreed to the collaborative management of national, no-blame maritime investigatory resources by the ATSB under the TSI Act. To progress the ATC's decision, the Transport and Infrastructure Senior Officials Committee (TISOC) agreed in September 2011 that the ATSB work bilaterally with jurisdictions to inform resourcing discussions for the national maritime investigator. This reform will potentially expand the ATSB's role from investigating only accidents involving Australian-registered, interstate and overseas trading ships to include all corporately owned commercial vessels operating in state waters. It will also 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).

5. Financial performance

This section should be read in conjunction with the ATSB's audited financial statements for 2011–12 which 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 2011–12 the ATSB received additional appropriation revenue to assist in funding the ATSB in continuing its preparations for becoming the national safety investigator across all Australian rail networks from January 2013. At present, the ATSB only investigates safety occurrences on the defined interstate rail network which does not include the rail network around the major capital cities.

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 is a commitment by the Government to provide annual capital injections to meet new capital requirements. Over time, the ATSB's capital injections are expected to offset the deficits associated with the non-funding of depreciation and amortisation, thus maintaining the underlying equity and net assets.

The ATSB's underlying result, after the effects of depreciation and amortisation are removed, is shown in Note 18 of the financial statements. This shows that the ATSB realised an underlying operating loss of \$246,000 which compares to the \$224,000 deficit in 2010–11. A significant factor in this result was the large unexpected costs in relation to the end-of-year adjustment for employee entitlements.

TABLE 3 Summary of financial performance and position

		2011–12 \$M	2010–11 \$M
Revenue from government		21.3	19.8
Other revenue		1.2	1.1
Total income		22.5	20.9
Employee expenses		15.9	14.9
Supplier expenses		6.9	6.2
Depreciation and amortisation		1.1	1.2
Total expenses		23.9	22.3
Operating surplus/(deficit)		–1.4	–1.4
Financial assets	A	8.5	8.1
Non-financial assets	B	3.3	3.5
Liabilities	C	6.1	5.0
Net Assets: A+B–C		5.7	6.6

TABLE 4 Agency Resource Statement 2011–12

	ACTUAL AVAILABLE APPROPRIATION FOR 2011–12	PAYMENTS MADE 2011–12	BALANCE REMAINING 2011–12
	\$'000 (A)	\$'000 (B)	\$'000 (A)–(B)
Ordinary Annual Services			
Departmental appropriation			
Total	21,723	22,204	(481)
Total net resourcing for the ATSB	21,723	22,204	(481)

TABLE 5 Resources available for outcomes, 2011–12

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 2011–12	ACTUAL 2011–12	VARIATION 2011–12
	\$'000*	\$'000	\$'000
Program 1.1 Australian Transport Safety Bureau			
Departmental expenses			
Ordinary annual services—Appropriation Bill No 1	21,723	21,723	–
Revenues from independent sources (Section 31)	945	1,398	453
Total for Program 1.1	22,668	23,121	453
Total expenses for Outcome 1	23,503	23,893	390
Average Staffing Level (number)	116	119	3

*Full year budget, including any subsequent adjustment made to the 2011–12 budget.

Note 17 of the Financial Statements contains further financial details of the Net Cost of Outcome delivery.

Section 4

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Significant safety investigations

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

Aviation investigations

The ATSB completed a number of large, complex investigations this year that involved passenger carrying operations by several operators.

In-flight upset 154 km west of Learmonth, Western Australia, Qantas A330-303 aircraft, registered VH-QPA on 7 October 2008. Investigation AO-2008-070

The final report was released to the public on 19 December 2011. The flight had departed Singapore on a scheduled passenger transport service to Perth, Western Australia. While the aircraft was cruising at 37,000 ft, one of the three air data inertial reference units started outputting intermittent, incorrect values (spikes) on all flight parameters to other aircraft systems. Two minutes later, in response to spikes in angle of attack data, the aircraft's flight control primary computers commanded the aircraft to pitch down. At least 110 of the 303 passengers and nine of the 12 crew members were injured. Twelve of the occupants were seriously injured and another 39 received hospital medical treatment.

One significant and nine minor safety issues were identified during the course of the investigation with adequate safety action taken in response by the relevant stakeholders. While the report uncovered the causes of the computer anomalies that led to the incident, and these issues were followed up with the manufacturers and relevant international authorities, this incident highlighted the more basic safety message to passengers about the importance of keeping seatbelts fastened while seated on an aircraft.

Tailstrike and runway overrun – Airbus A340-541, A6-ERG, Melbourne Airport, Victoria, 20 March 2009. Investigation AO-2009-012

On 16 December 2011 the ATSB released its investigation report into the tailstrike and runway overrun that occurred at Melbourne Airport, Victoria on 20 March 2009 and involved Emirates A340 aircraft, registered A6-ERG, which had 257 passengers and 18 crew on board.

The investigation found that the accident resulted from the use of erroneous take-off performance parameters. Those erroneous parameters were themselves a result of an incorrect take-off weight being inadvertently entered into the electronic flight bag during the pre-departure preparation. Due to a number of factors, the incorrect data entry passed through the subsequent checks without detection. Three significant and two minor safety issues were identified during the investigation. In response, there was adequate safety action by the relevant stakeholders to address one of the significant issues and the ATSB issued a safety recommendation to the United States Federal Aviation Administration and is monitoring action by that agency in respect of the second significant safety issue. As a result of the third significant safety issue, the ATSB issued safety advisory notices to the International Air Transport Association and Flight Safety Foundation that sought the development of take-off performance monitoring guidance for crews who are involved in mixed fleet flying.

Collision with terrain – Embraer S.A. EMB-120ER Brasilia, VH-ANB, Darwin Airport, Northern Territory, 22 March 2010. Investigation AO-2009-019

The final investigation report was released to the public on 23 February 2012. On 22 March 2010, an Air North Embraer S.A. EMB-120ER Brasilia aircraft (EMB-120), registration VH-ANB, crashed moments after takeoff from runway 29 at Darwin Airport, Northern Territory, fatally injuring both pilots. The flight was for the purpose of revalidating the command instrument rating of the pilot under check and was under the command of a training and checking captain, who occupied the copilot's seat. The takeoff included a simulated engine failure. Data from the aircraft's flight recorders was used to establish the circumstances leading to the accident and showed that the pilot in command (PIC) retarded the left power lever to flight idle to simulate an engine failure. That action had the effect of simulating a simultaneous failure of the left engine and propeller auto-feathering system, something that was likely not intended.

The increased drag from the 'windmilling' propeller increased the control forces required to maintain the aircraft's flightpath. The pilot under check allowed the speed to decrease and the aircraft to bank toward the inoperative engine. Additionally, he increased power on the right engine, and engaged the yaw damper in an attempt to stabilise the aircraft's flight. Those actions increased his workload and made control of the aircraft more difficult. The PIC did not restore power to the left engine to discontinue the manoeuvre. The few seconds available before the aircraft became uncontrollable were insufficient to allow 'trouble shooting' and deliberation before resolving the situation. Although no safety issues were identified during the investigation, the importance of the action by the Civil Aviation Safety Authority (CASA) to mandate the use of simulators for non-normal flying training and proficiency checks in larger aircraft was reemphasised. CASA has subsequently advised of changes to the simulator-based training requirements for such aircraft that will come into effect on 1 April 2013, and encouraged air operators to prepare early for the new rules.

In-flight engine failure – Qantas, Airbus A380, VH-OQA, overhead Batam Island, Indonesia, 4 November 2010. Investigation AO-2010-089

This investigation is ongoing and continues to reinforce the benefits of the Annex 13 investigation methodology in the execution of complex no blame no liability investigations in the international context. To date, no additional significant or critical safety issues have been identified subsequent to the issue by the ATSB of safety recommendation AO-2010-089-AR-012 on 1 December 2010, in response to which Rolls-Royce plc carried out adequate safety action. It is anticipated that the final investigation report will be released to the public in the first quarter of calendar year 2013.

Loss of separation incidents in air traffic control

The ATSB commenced a combined total of 20 breakdown of separation (BOS)/loss of separation assurance (LOSA) investigations and completed 14 BOS/LOSA investigations this year. On 30 June 2012, 10 BOS/LOSA investigations were ongoing and one BOS 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 into BOS and LOSA occurrences in Australia. This research investigation will make an integrated examination of all BOS and LOSA occurrences between 2008 and 2011, and will analyse the related occurrence investigations to identify any common underlying safety issues. As of 30 June 2012, no significant systemic safety issues had been identified by the ATSB's BOS/LOSA occurrence or research investigations.

Marine investigations

Marine Investigation: Stevedore fatality on board *Vega Gotland* in Port Botany, NSW. Investigation 273–MO– 2010–002

At about 1918 on 28 March 2010, a stevedore was crushed between two containers during loading operations on board the container ship *Vega Gotland*, while it was berthed at the Patrick Terminals' Port Botany terminal. The stevedore, who was the lashing team leader, died instantly from the injuries he received in the accident.

The ATSB found that the lashing team leader had placed himself in a position of danger and that when a twistlock foundation unexpectedly failed during the repositioning of the container, he was unable to get clear of the swinging container. The investigation also found that the failure of the twistlock foundation was brought about by an attempt to reposition the container and was consistent with its exposure to gross overstress as a result of the leverage forces applied to it by the container and the unsecured hatch cover.

The investigation identified that while the dangers of working between a moving container and a fixed object were taught to Patrick Terminals' new employees during their induction training, the issue was not specifically covered or reinforced in the company's safe work instructions, the hazard identification and associated risk control processes. Nor, in some instances, was it followed in practice by stevedores on board the ships in the terminal.

The ATSB identified safety issues during the investigation related to:

- the absence of policies or procedures concerning safety zones near container operations
- deficiencies in Patrick Terminals' safety management system
- the discontinuity between what was taught to new employees and the contents of the safe work instructions and hence the practices on the work site
- hazard identification and associated risk controls for lashing and unlashings
- review and compliance auditing of safe work instructions and reporting risk-related events
- national and international guidance did not adequately reflect recognised safe practices of not working under or near a container being loaded

The ATSB acknowledged the safety action taken by Patrick Terminals in response to this accident and was satisfied that it adequately addressed the safety issues.

The ATSB issued one safety advisory notice concerning national and international guidance needing to better reflect the recognised safe practices of not working under or near a container being loaded onto a ship.

Marine Investigation: Fast rescue boat accident on board *British Sapphire* off Darwin, NT. Investigation 275–MO–2010–004

On 16 May 2010, the chief engineer, second mate and fourth engineer of the Isle of Man-registered liquefied natural gas tanker *British Sapphire* were injured when the fast rescue boat they were in dropped 18 m to the water while it was being launched. The second mate and fourth engineer were part of the rescue boat's three crew involved in an attempt to transfer the chief engineer to a police launch for medical evacuation.

The ATSB determined that, in the process of lowering the rescue boat, the wave compensator mechanism on the fast rescue boat's davit was activated early, before the rescue boat had reached the water. A fail-safe interlock device should have prevented this by placing the wave compensator into standby mode, only becoming operational when the fast rescue boat was waterborne. However, the interlock electrical installation was incorrect and meant it could not work as designed, allowing the wave compensation unit to operate always and the fast rescue boat to make the uncontrolled descent to the sea.

The ATSB identified safety issues relating to the commissioning, maintenance, testing, operating instructions and procedures for the fast rescue boat's wave compensator and its safety interlock system. Further safety issues were identified relating to the job hazard analysis for the use of the fast rescue boat, crew resource management principles and approved training courses for fast rescue boats.

The ATSB was satisfied that the safety action taken by BP Shipping and Davit International in response to this accident adequately addressed the identified safety issues. However, the ATSB remained concerned about the adequacy of training in the use of wave compensation units on fast rescue boat davits and released a safety advisory notice to national and international maritime training institutions about this safety issue.



275-MO-2010-004 fast rescue boat incident on board the Isle of Man registered liquefied natural gas tanker *British Sapphire* off Darwin, Northern Territory on 16 May 2010.

Rail investigations

Rail Investigation: Collision between an XPT passenger train and a track-mounted excavator near Newbridge, NSW. Investigation RO-2010-004

At about 1116 on 5 May 2010 a collision occurred between an XPT passenger train and a track-mounted excavator near Newbridge, New South Wales. The operator of the excavator was fatally injured. During the course of the investigation a similar incident occurred near Wards River, New South Wales (17 March 2011), where two work groups had to quickly vacate their on-track worksite due to an approaching train (there were no injuries). Both incidents occurred despite the fact that the work groups had been authorised, under a Track Occupancy Authority (TOA), to occupy and work on the track.

The ATSB established that, for the accident at Newbridge, a TOA was an appropriate method of authorising the work. However, a combination of individual actions and systemic issues contributed to the collision. When requesting the TOA, neither the Protection Officer (PO) nor the Network Control Officer (NCO) positively identified the location and type of worksite. Their actions were influenced by a deficiency in the TOA form, in that no provision was provided to record this critical information. Consequently, both the PO and NCO incorrectly concluded that the train had already passed beyond the limits of the worksite. In addition, the workers accessed the danger zone before additional site protection measures (detonators and flags) had been put in place. The ATSB also found that the workers were relatively inexperienced and that their training had not specifically discussed the hazards and protections that were relevant when working under a TOA.

The scenario for the Wards River incident was similar in that the track access point for the work was about 16 km into the section defined by the limits of the proposed TOA. Similar to the Newbridge event, the PO did not clearly identify the location of the worksite and the NCO did not ensure the train had passed beyond the worksite or track access point.

As a result of the incident at Newbridge on 5 May 2010, the Australian Rail Track Corporation (ARTC) took action to reinforce the rules and procedures associated with the issuing of TOAs. The ARTC also implemented the use of a revised TOA form that provides for the recording of critical information regarding the location and type of worksite. It is likely that implementation of the new form should reduce the risk of similar incidents.

Rail Investigation: Derailment of train 1MP5 at Goddards, WA. Investigation RO-2010-015

At 1603 (WST) on 28 December 2010, freight train 1MP5 derailed on the Trans-Australian Railway Line at Goddards, approximately 240 km east of Kalgoorlie in Western Australia. The derailment occurred within a recently constructed crossing loop on a section of track managed by the Australian Rail Track Corporation (ARTC). Train 1MP5 consisted of two locomotives hauling two crew vans and 49 wagons. There were no injuries as a result of the derailment but 23 wagons derailed, many of which were significantly damaged and about 700 m of track required replacement.

The ATSB determined that the derailment was a result of flange climb initiated by a track misalignment which probably grew as train 1MP5 traversed it, becoming large enough to initiate the derailment. Factors that contributed to the misalignment were the high ambient temperature, inadequately de-stressed rail and insufficient ballast through the derailment site. The ATSB also found that the ARTC's quality assurance processes used during the contracted construction of the crossing loop could be improved.

The ARTC have taken action as a result of the derailment and investigation relating to track construction, audit and quality control processes.

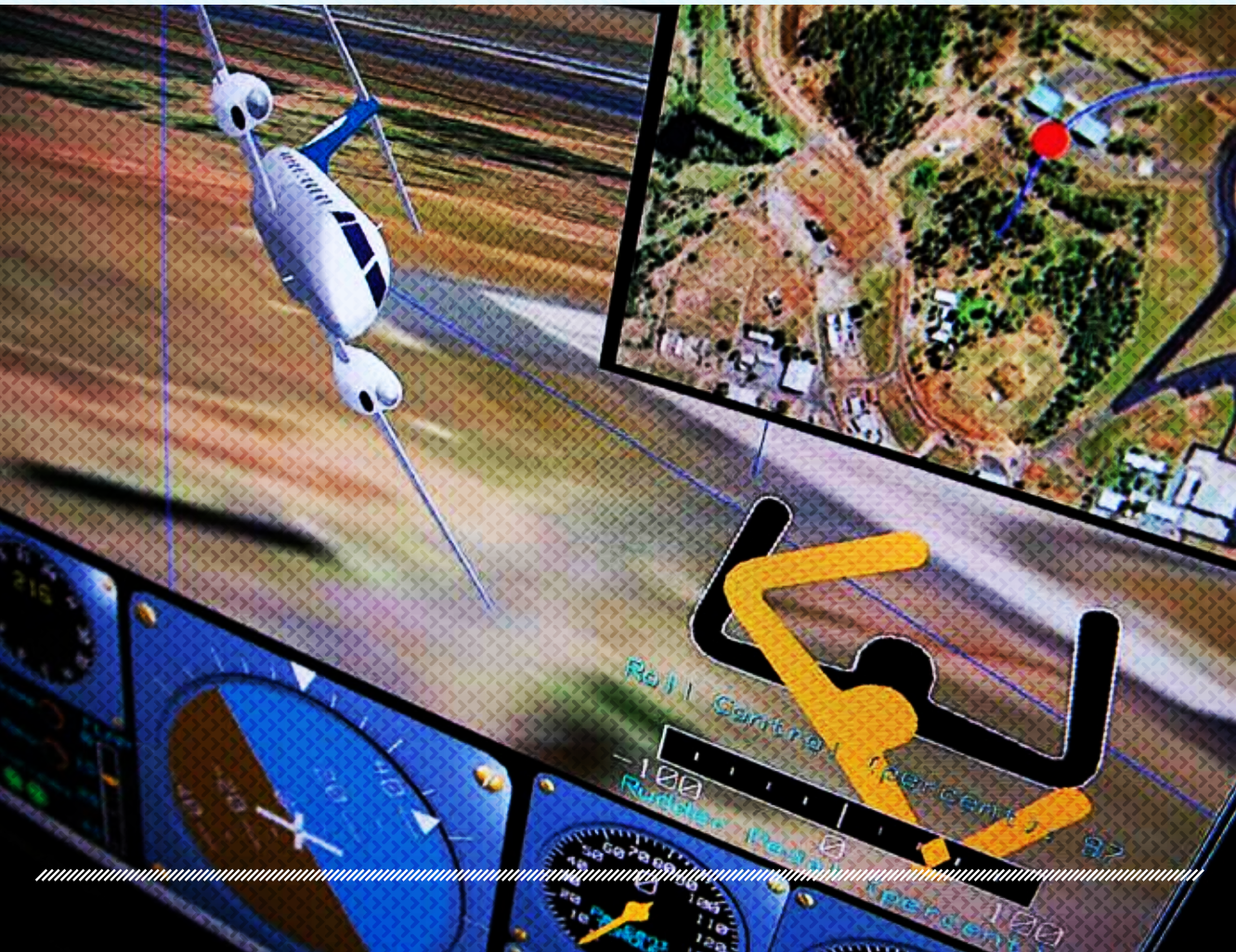


Derailment of train 1MP5 at Goddards, WA, 28 December 2010

Section 5

Transport safety statistics

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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 Table 6 to 10 represents those aviation accidents, serious incidents and incidents that have been reported to the ATSB. Information about those occurrences is entered into the ATSB's aviation occurrence database, and decisions are made about which of those occurrences will be investigated by the ATSB.

Table 6 shows occurrences from commercial air transport operations, including regular public transport and charter operations. There have been between zero and six fatalities per year in the past 5 years, mostly from charter operations. In 2011 there were two fatal accidents that resulted in two fatalities, both involving charter flights.

TABLE 6 Commercial air transport occurrences and injuries reported to the ATSB, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
AIRCRAFT INVOLVED IN						
Incidents	3,919	4,054	3,868	4,506	4,904	21,251
Serious incidents	45	47	24	34	25	175
Accidents	22	29	11	23	21	106
NUMBER OF INJURIES						
Serious injuries	1	15	3	2	3	24
Fatalities	2	6	0	2	2	12
Total fatalities and serious injuries	3	21	3	4	5	36

In the case of VH-registered general aviation operations, there have been between 109 and 127 accidents per year and between 16 and 34 fatalities per year. In 2011, there were 28 fatalities from general aviation, a sizable increase from the previous two years (Table 7).

TABLE 7 General aviation occurrences and injuries reported to the ATSB, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
AIRCRAFT INVOLVED IN						
Incidents	3,538	3,526	3,680	3,559	3,146	17,449
Serious incidents	95	108	98	134	128	563
Accidents	118	126	119	127	109	599
NUMBER OF INJURIES						
Serious injuries	9	23	13	19	20	84
Fatalities	21	34	16	16	28	115
Total fatalities and serious injuries	30	57	29	35	48	199

Occurrences reported to the ATSB from non-VH registered (recreational) aircraft can be seen in Table 8. 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 are 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. In 2011 there were eight fatalities recorded for recreational aircraft.

TABLE 8 Recreational aviation (non VH-registered) occurrences and injuries reported to the ATSB, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
AIRCRAFT INVOLVED IN						
Incidents	59	88	79	119	130	475
Serious incidents	12	19	8	17	9	65
Accidents	29	40	41	58	59	227
NUMBER OF INJURIES						
Serious injuries	8	4	4	12	15	43
Fatalities	21	3	11	7	8	50
Total fatalities and serious injuries	29	7	15	19	23	93

Accidents and incidents are usually the result of a complex set of circumstances, often involving a chain (or sequence) of events. The ATSB categorises each reported accident and incident into one or more occurrence types to identify what happened in the occurrence, and how the sequence of events contributed to the accident or incident. Classifying occurrences in this way helps understand what types of occurrences have taken place, and to identify potential areas for safety improvement and communication.

There are five broad occurrence type categories currently used by the ATSB to classify aviation accidents and incidents:

- airspace-related
- aerodrome and airways facility-related
- environment-related
- mechanical-related
- operational-related.

The ATSB records one or more occurrence types for all aircraft involved in each occurrence.

The number of aircraft involved in accidents and serious incidents of each occurrence type is shown in Table 9 for commercial air transport. The top accident and serious incident types involving these operations in 2011 were aircraft separation events, powerplant and propulsion problems, collisions with terrain, runway events, ground operations, and crew and cabin issues.

TABLE 9 Accidents and serious incidents in Commercial air transport operations, by occurrence type, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
AIRSPACE						
Aircraft separation	21	11	10	19	11	72
Failure to Comply (FTC)(Operational Non-compliance)	5	5	3	2	1	16
Air Traffic Control (ATC)Procedural Error	3	1	2	0	6	12
Violation of Controlled Airspace (VCA) (Airspace incursion)	1	1	1	0	0	3
Breakdown of co-ordination	0	0	0	1	0	1
Other	1	0	0	0	0	1
ENVIRONMENT						
Weather	5	6	1	2	0	14
Wildlife	2	0	0	1	0	3
MECHANICAL						
Powerplant/propulsion	10	17	8	11	11	57
Airframe	9	7	9	4	4	33
Systems	5	10	5	1	4	25
OPERATIONAL						
Aircraft control	17	20	13	14	4	68
Crew and cabin safety	12	15	7	4	5	43
Runway events	8	9	1	5	7	30
Terrain Collisions	5	8	3	4	9	29
Ground operations	5	5	1	5	7	23
Miscellaneous	2	12	3	4	0	21

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
Communications	2	6	1	4	4	17
Fuel related	4	6	3	0	2	15
Fumes, Smoke, Fire	1	7	3	1	1	13
Flight preparation / Navigation	4	0	1	3	0	8
Ground Proximity Warning System (GPWS)/ TAWS	2	0	1	0	0	3
Regulations and Standard Operating Procedures	0	1	0	0	0	1
Aircraft loading	0	0	0	1	0	1

The top accident and serious incident types involving general aviation operations in 2011 were collisions with terrain, aircraft separation events, aircraft control problems, powerplant and propulsion issues, and runway events (Table 10).

TABLE 10 Accidents and serious incidents in general aviation operations, by occurrence type, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
AERODROME AND AIRWAYS FACILITY						
Aerodrome related	0	0	1	0	0	1
AIRSPACE						
Aircraft separation	34	63	50	66	73	286
FTC (Operational Non-compliance)	5	23	13	5	11	57
ATC Procedural Error	0	7	4	2	4	17
VCA (Airspace incursion)	1	3	4	1	2	11
ENVIRONMENT						
Weather	14	3	12	9	4	42
Wildlife	2	2	3	3	4	14
MECHANICAL						
Powerplant / propulsion	68	41	55	45	34	243
Airframe	11	12	14	10	6	53
Systems	4	6	7	11	8	36
OPERATIONAL						
Terrain Collisions	84	113	68	125	91	481
Aircraft control	51	52	48	37	43	231
Runway events	24	26	25	22	18	115
Ground operations	22	16	23	19	15	95
Fuel related	6	9	8	15	16	54

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
Communications	1	15	7	10	17	50
Miscellaneous	7	13	15	5	3	43
Fumes, Smoke, Fire	5	5	4	7	4	25
Crew and cabin safety	3	5	3	2	2	15
Flight preparation / Navigation	4	4	5	0	2	15
Regulations and SOPs	1	1	0	0	0	2
Aircraft loading	1	1	1	0	0	3

Marine

The information contained in Table 11 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 11 shows there have been between 71 and 99 Immediately Reportable Matters per year reported to the ATSB between 2007 and 2011, most of which were considered to be incidents. For 2011, there were six accidents and five serious incidents. Furthermore, there were between 20 and 36 injuries and fatalities per year, with only five fatalities recorded for 2011.

TABLE 11 Marine occurrences and injuries reported to the ATSB, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
Accidents	8	3	3	3	6	23
Serious incidents	3	3	2	5	5	18
Incidents	81	65	94	72	78	390
Total occurrences	92	71	99	80	89	431
NUMBER OF INJURIES						
Serious injuries	24	17	23	24	22	110
Missing	3	1	0	0	2	6
Fatalities	9	2	3	3	5	22
Total injuries/fatalities	36	20	26	27	29	138

Table 12 displays all occurrence types associated with each occurrence. The table shows that over the last 5 years, damage to ship or equipment was the most frequent type of event coded for reported occurrences, followed by serious injury and equipment failures.

Table 12 Marine occurrences reported to the ATSB by type, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
Damage to ship or equipment	28	21	42	32	18	141
Serious injury	20	16	24	21	22	103
Equipment failure	24	20	17	15	17	93
Fire/explosion	10	17	9	10	12	58
Contact	5	7	13	12	14	51
Grounding/stranding	6	11	4	7	12	40
Machinery failure	7	2	7	8	9	33
Hull failure/failure of watertight openings	6	2	6	4	4	22
Fatality	8	3	4	3	4	22
Collision	7	2	7	3	3	22
Pollution	3	2	8	5	1	19
Lifeboat accident	2	2	4	4	2	14
Flooding	4	2	2	0	2	10
Close quarters	2	1	2	2	1	8
Capsizing/listing	1	0	2	2	2	7
Missing assumed lost	2	1	0	1	1	5
Foundered	1	0	1	1	0	3
Other	11	7	22	17	10	67
Total	147	116	174	147	134	718

Rail

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

As part of this shared responsibility, industry operators are 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 described below is supplied to the ATSB twice a year by state and territory rail safety regulators to enable the publication of a national set of rail safety statistics, referred to as the National Rail Occurrence Database (NROD).

The NROD data is designed to assist rail safety professionals and researchers in understanding and mitigating risk. It can also be used for international comparative research, while informing the public about emerging issues in rail safety. This data is collected and published on a jurisdictional basis. The NROD data contains frequency counts of the following safety-critical occurrence types:

- derailment
- collision
- level crossing occurrence
- signal passed at danger (SPAD)
- loading irregularity
- track and civil infrastructure irregularity.

Note: Only one of these occurrence types is assigned to an individual occurrence (the top event), even if the occurrence involved more than one of the above types.

Frequency counts for each of the above occurrences are normalised according to the size of the rail operation (train kilometres or track kilometres). In addition, frequency counts are provided for:

- deaths
- serious injuries.

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

The data is published at < <http://www.atsb.gov.au/rail/statistics.aspx>> and also features in Table 13.

TABLE 13 National rail safety occurrence data, 2007–2011

OCCURRENCE CATEGORY	2007	2008	2009	2010	2011	TOTAL
Deaths (non–suicide)	42	31	28	30	35	166
Serious injuries (exc. NSW)	183	114	91	38	84	510
Derailments *	144	127	153	139	157	720
COLLISIONS * WITH						
infrastructure	100	157	117	120	98	592
persons	42	50	55	51	59	257
road vehicles	11	9	9	12	14	55
rolling stock	4	10	8	6	6	34
other trains	16	21	18	16	15	86
Level crossing collisions with:						
road vehicles	56	59	48	46	48	257
persons	9	5	10	8	12	44
SIGNALS PASSED AT DANGER (EXC. TAS, NT)						
driver error	497	474	404	421	444	2,240
signal restored as train approaches	771	812	872	871	881	4,207
Loading irregularities	477	509	496	551	574	2,607
Track/infrastructure irregularities	1,341	1,481	1,709	1,790	1,575	7,896

* Running line
Source: Rail Safety Regulators Panel (RSRP), ATSB

The state and territory regulators 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 (Table 13).

The information contained in Table 14 represents those rail accidents and incidents that have been reported 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.

The data presented in Table 14 displays all occurrence types associated with each occurrence. The table shows that over the last 5 years, derailments, collisions with road vehicles at level crossings and running line collisions were the most frequent occurrences reported to the ATSB.

TABLE 14 Rail occurrences reported to the ATSB, 2007–2011

OCCURRENCE TYPE LEVEL 1	OCCURRENCE TYPE LEVEL 2	2007	2008	2009	2010	2011	TOTAL
Alcohol Or Drugs Irregularity	Alcohol or Drugs Irregularity	0	2	0	0	1	3
Collision	Running Line Collision	6	9	6	7	6	34
	Yard Collision	1	2	1	1	1	6
Dangerous Goods	On Train	0	0	1	0	0	1
Derailment	Running Line Derailment	12	16	12	11	16	67
	Yard Derailment	2	6	7	8	5	28
Fire	On Train	2	1	4	1	2	10
Level Crossing Occurrence	Collision with Person	1	0	2	1	0	4
	Collision with Road Vehicle	13	7	7	3	7	37
	Level Crossing Equipment Damage/ Interference	0	0	1	0	0	1
	Near Miss with Road Vehicle	0	1	2	0	0	3
Load Irregularity	Door Open	1					1
	Load Shift	1					1
	Out of Gauge	0	0	1	0	0	1
Proceed Authority Exceeded	Driver Misjudged	0	0	1	0	0	1
Railway network security	Vandalism	0	0	1	0	0	1
Rollingstock Irregularity	Braking System	0	1	0	0	0	1
	Defective Bearing	2	1	0	3	2	8
	Other Rolling Stock Irregularity	1	1	0	0	2	4
	Train Parting	0	0	3	0	2	5
	Wheel/Axle Failure	0	0	0	1	2	3

OCCURRENCE TYPE LEVEL 1	OCCURRENCE TYPE LEVEL 2	2007	2008	2009	2010	2011	TOTAL
Safeworking Rule or Procedure Breach	Communications Based System Procedure/Rule Breach	0	0	1	0	0	1
	Other Safe Working Rule or Procedure Breach	1	2	1	0	2	6
	Token Based System Procedure/Rule Breach	0	0	0	0	1	1
	Track Work Procedure/Rule Breach	0	2	2	2	10	16
	Wayside Signalling System Procedure/Rule Breach	0	1	0	1	1	3
Signal Passed at Danger	Completely Missed While Running	0	0	0	3	1	4
	Driver Misjudged	0	3	4	1	2	10
	Other Signal Passed at Danger	0	1	0	1	0	2
	Starting Against Signal	0	0	0	1	1	2
Signalling and other Proceed Authority Systems Irregularity	Other Signalling or Proceed Authority System Irregularity	0	0	0	0	1	1
	Wayside Signalling System Irregularities	0	1	2	0	0	3
Slip, Trip or Fall	From Structure	0	0	0	1	0	1
	On Train	0	0	0	0	1	1
	On/From Platform /Concourse	0	0	0	0	1	1
	Other Slip Trip or Fall	0	1	0	0	0	1
	To/From Train	0	0	1	0	0	1
Suspected Suicide or Attempted Suicide	Attempted Suicide	0	0	0	1	0	1
	Suspected Suicide	2	0	2	1	3	8
Track and Civil Infrastructure Irregularity	Broken Rail	1	0	0	0	0	1
	Civil Infrastructure Irregularity	0	0	1	0	0	1
	Other Track Infrastructure Irregularity	1	0	0	1	2	4
	Track Obstruction	0	0	0	0	2	2
Total		47	58	63	49	74	291

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Safety awareness

This section is in two parts. The first section reports on the ATSB's approach to strategic communication and our dissemination of safety information.

The second reports on formal safety issues and actions identified and reported under the TSI Act.

1. 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 2011–12 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.

Social media

In July 2011, the ATSB created a Twitter account (@atsbinfo) as part of our online engagement approach with industry, media and the general public.

Twitter has proven to be highly effective when we release an investigation/research report and investigation updates. Through this application, we can provide a short safety message along with a link to more information on our website.

By the end of June 2012, we had 'tweeted' 197 messages and accumulated 730 'followers' comprising journalists, members of the public and transport industry specialists. Over the next year, we will continue to explore other social media channels that can help us share safety messages and better engage with our stakeholders.

Safety summaries

When the ATSB investigates an accident or incident, we produce a highly detailed final investigation report that outlines the sequence of events of the occurrence along with our analysis and findings.

In 2012, we began including an additional 'Safety Summary' page at the beginning of our investigation reports. The Safety Summary quickly and concisely informs the reader about the accident/incident, our investigation, our findings, any safety action and any safety message.

Written in plain English, the Safety Summary describes in plain language:

- what happened
- what we found
- what has been done to fix the issue
- key safety messages.

While the Safety Summary can be read in isolation from the report, it by no means replaces the need for our high-quality, comprehensive investigation reports.

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 2011–12, we issued twelve media releases highlighting emerging safety issues identified from our safety investigations. These media releases provided safety advice and updates to industry and the general public on a range of safety matters including:

- urging helicopter pilots to fly within their aircrafts' limits
- the dangers associated with visual flying in poor weather
- the ATSB's investigation into the Sydney–Melbourne rail line
- insufficient procedures continuing to be a transport safety problem
- incorrect take-off data for aircraft not being an isolated event
- the safety need for passengers to fasten their seatbelts while flying
- how poor fuel management is a worrying trend in aviation
- the risks of flying with lithium-powered devices (such as mobile phones and laptops)
- a reminder for pilots to report wirestrikes to the ATSB.

Over the year, the ATSB's Chief Commissioner conducted media briefings as part of the release of investigation reports. These included:

- the Emirates tailstrike and runway overrun accident at Melbourne Airport that occurred in 2009
- the in-flight upset of an Airbus A380 near Learmonth, WA that occurred in 2008
- the foundering of the cargo ship *Tycoon* at Christmas Island that occurred in January 2012.

The ATSB also regularly contributed articles and advertisements 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. The popularity of the site continues to grow, with 515961 visits in 2011–12, compared to 502075 visits in 2010–11 and 419575 visits in 2009–10. The increased visits are likely a result of our greater emphasis on safety awareness activities along with the revamp of the website in November 2010 to make it more user-friendly and news-focused.

Information from the website can be found by selecting navigation links within each transport mode, or by searching directly for specific information using a customised search engine.

The site contains:

- aviation, marine and rail safety investigation reports
- safety awareness and education material including our popular Avoidable Accident booklets
- reporting forms for both mandatory and confidential transport safety reporting systems
- research and analysis reports
- accident statistics
- safety recommendations
- media alerts and releases
- speeches and audio grabs of media briefings

- safety articles and links of interest
- a free subscription information service.

We are continually working to improve our website to meet audience needs and to allow for new and emerging technologies. Work is well underway to make the site more focused around safety issues. This makes it easier for users to search and find a transport safety issue and the corresponding proactive safety action, safety advisory notice or recommendation.

Industry engagement

In 2011–12, 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 2011–12, the ATSB took part in approximately 70 major events with industry stakeholders both within Australia and overseas. These included:

- Air International Recorders' Investigator forum, Amsterdam, Netherlands
- Airservices Australia-sponsored Waypoint 2012 conference, Canberra
- American Institute of Aeronautics and Astronautics, Adelaide
- Asia Pacific Cabin Safety Working Group
- Asia Pacific AVSEC 2012, Canberra
- Assetinsure event (Aviation insurance conference), Orange, NSW
- AusRAILPLUS 2012 conference and exhibition, Canberra
- Australian Airports Conference
- Australian Aviation Wildlife Hazard Group
- Australian Dangerous Goods Air Transport Council, Bankstown, NSW
- Australian Engineering Week 2011—ATSB Open Evenings, Canberra
- Australian & New Zealand Society of Air Safety Investigators Conference, Sydney
- Australian Shipowners Association (ASA) annual conference (SEA11) and the ASA's 25th anniversary dinner, Sydney
- Australasian Aerospace Occupational Safety and Health Association meeting, Melbourne
- Australasian Society of Aerospace Medicine (ASAM) 2011 Conference, Newcastle
- Aviation outlook Australia Pacific, Sydney
- China Academy of Railway Sciences (CARS)—workshop, Beijing
- Chinese North East Civil Aviation Administration of China visit, Canberra
- Civil Aviation Administration Authority of China visit, Canberra
- Essential Energy—Risk Strategies presentation, ATSB, Canberra
- European Society of Air Safety Investigators, Amsterdam
- Illawarra Flyers
- International Civil Aviation Organization Asia-Pacific Regional Workshop—Accident Investigation Workshop
- International Civil Aviation Organization Asia-Pacific Regional Workshop—Flight Recorder Training session
- International Confidential Aviation Safety Systems Group (ICASS) Annual Meeting 2011, San Jose and Seattle, USA
- International Maritime Organization Flag State Implementation subcommittee
- International Railway Safety Conference, Melbourne

- International Society of Air Safety Investigators, Salt Lake City, Utah, USA
- Marine Accident Investigators Forum in Asia (MAIFA) Forum in Asia, 14th Annual Meeting, 2011, Indonesia
- Maritime Logistics 2012
- Materials Australia—Sir Frank Ledger memorial breakfast, Perth, WA
- National DVI conference, Queenstown, NZ
- National Derailment Investigations and Analysis Workshop
- Pacific 2012, Sydney
- Pacific and Australasian CRM Developers' and Facilitators Forum conference, Queenstown, NZ
- Perth Runway Safety Team, Perth
- Ports Australia, Newcastle
- Qantas Safety Seminar, Sydney
- Qantas Safety Week, Perth
- Rail Technical Society Australasia National Executive committee meeting, Qld
- Regional Airspace and Procedures Advisory Committee, Darwin
- Regional Aviation Association of Australia convention, Coolumb
- Rescue Fire Fighting Service—Southern District
- Royal Federation of Aero Clubs Annual Conference
- Runway Safety Group Meeting
- Safeskies, Canberra
- Swinburne University Aviation Industry Seminar Series, Melbourne



AO-2009-012 Tailstrike and runway overrun - Airbus A340-541, A6-ERG, Melbourne Airport, Victoria, 20 March 2009

2. Formal safety issues and advices

The ATSB prefers to encourage stakeholders to take proactive safety action that addresses safety issues identified in its reports even before the investigation is complete. 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 they 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 characteristic 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). As a result, the ATSB now issues very few safety recommendations (only one in 2011–12) compared to previous years.

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, in the 2011–12 and subsequent financial years:

- 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 2011–12

There were no critical safety issues identified in the 2011–12 financial year.

Table 15 Summary of safety issues identified in 2011–12

NUMBER OF SAFETY ISSUES	AVIATION	MARINE	RAIL	TOTAL
Critical	None	None	None	0
Significant	11	12	5	28
Minor	36	17	20	73
Total	47	29	25	101

Table 16 KPI outcomes for significant safety issues identified in 2011–12

STATUS OF SIGNIFICANT SAFETY ISSUES	AVIATION	MARINE	RAIL	TOTAL	PER CENT
Adequately addressed	8	12	5	25	89%
Partially addressed	1	0	0	1	4%
Not addressed	0	0	0	0	–
Safety action still pending	2	0	0	2	7%
Total	11	12	5	28	

Table 17 Report on the responses to safety issues identified in 2011–12

Aviation

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
AO-2008-070 <i>In-flight upset – 154 km west of Learmonth, WA – 7 October 2008 – VH-QPA – Airbus A330-303</i>			
There was a limitation in the algorithm used by the A330/A340 flight control primary computers for processing angle of attack (AOA) data. This limitation meant that, in a very specific situation, multiple spikes in AOA from only one of the three air data inertial reference units could result in a nose-down elevator command.	Adequately addressed	The FCPC algorithm for processing angle of attack data has been redesigned to eliminate the design limitation and ensure that the algorithm is not affected by incorrect data from any one of the aircraft's three air data inertial reference units.	Minor
AO-2008-084 <i>In-flight breakup – 58 km south-west of Nyngan, New South Wales – 29 December 2008 – VH-IGT – PZL-M18A Dromader</i>			
Operation of the M-18A in accordance with Civil Aviation Safety Authority exemptions EX56/07 and EX09/07 at weights in excess of the basic Aircraft Flight Manual maximum take-off weight (MTOW), up to the MTOW listed on the Type Certificate Data Sheet, may not provide the same level of safety intended by the manufacturer when including that weight on the Type Certificate.	Adequately addressed	CASA has issued a revised exemption that explicitly requires pilots to observe limitation associated with the higher weights. They will also be sending a letter to operators to point out the requirements. This will result in overweight operations that are as low as reasonably possible.	Minor
A number of operators of the PZL M-18 Dromader aircraft had not applied the appropriate service life factors to the aircraft's time in service for operations conducted with take-off weights greater than 4,700 kg, as required by the aircraft's service documentation. Hence the operators could not be assured that their aircraft were within their safe service life.	Adequately addressed	Both the operator and CASA have taken positive actions to ensure that the operators are aware of the requirement to apply and record the service life factors.	Minor
AO-2009-012 <i>Tail strike and runway overrun – Melbourne Airport, Victoria – 20 March 2009 – A6-ERG – Airbus A340-541</i>			
The available Cross Crew Qualification and Mixed Fleet Flying guidance did not address how flight crew might form an expectation, or conduct a 'reasonableness' check, of the speed/weight relationship for their aircraft during takeoff.	Partially addressed	The Flight Safety Foundation has commenced education (initially through the AeroSafety World article). There is no more that the ATSB can directly do until engineered systems are implemented and the appropriate experts (not based in ATSB) find solutions to the human factors elements.	Significant
The operator's training and processes in place to enable flight crew to manage distractions during the pre-departure phase did not minimise the effect of distraction during safety critical tasks.	Adequately addressed	The operator has made a significant number of changes to their training and checking systems to include distraction and distraction management. This included incorporation into the CRM training and simulator sessions. See report for details of safety action taken	Significant

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
The existing take-off certification standards, which were based on the attainment of the take-off reference speeds, and flight crew training that was based on monitoring of and responding to those speeds, did not provide crews a means to detect degraded take-off acceleration.	Partially addressed from action by Emirates, Airbus and EASA. Waiting for action from the FAA in response to recommendation AO-2009-012-SR-079	This event, plus the multitude of international events and recommendations from the TSB and AAIB highlight the inability to judge aircraft performance on take-off and the necessity of an engineering intervention such as TOPMS to provide a final defence/alert to flight crew regarding degraded performance during takeoff.	To be assessed

AO-2010-104 *Breakdown of separation – near Melbourne Airport, Victoria – 05 December 2010 (published 2 May 2012).*

The Auto Release procedures at Melbourne Airport allowed for aircraft to be departed at or close to the separation minima, with no controls in place to ensure aircraft would maintain a minimum speed and flight crews would advise air traffic control if the speed could not be achieved.	Issue to be reviewed and an update provided by December 2012		To be assessed
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AO-2011-011 *Breakdown of separation – 22 km S Williamstown (Newcastle Airport), NSW– 1 Feb 2011.*

The Department of Defence's (DoD) air traffic controllers had not received training in compromised separation recovery techniques.	Adequately addressed	DoD has appropriately addressed the safety issue with the addition of compromised separation recovery training to SATC courses, in both simulator and theory components, as well as the development of refresher training for flights. In the interim, DoD has initiated controller 'quizzes' and briefings on CSRT techniques.	Minor
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AO-2011-016 *Loss of control – Cessnock Aerodrome, New South Wales – 4 February 2011 – VH-HFH – Robinson Helicopter Company R44 Astro.*

A significant number of R44 helicopters, including VH-HFH, were not fitted with bladder-type fuel tanks and the other modifications detailed in the manufacturer's service bulletin 78 that were designed to provide improved resistance to post-impact fuel leaks.	Adequately addressed	There are insufficient bladder-type fuel tanks available to immediately retrofit all the R44s currently fitted with all-aluminium tanks. An immediate grounding would result in extensive on-ground delays while the kits were manufactured. RHC's action to increase production of the bladder tanks and reduce the time period to have the all-aluminium tanks replaced was considered an acceptable response to the safety issue. The residual risk remains significant, however, the 31 December 2013 deadline for retrofitting of the bladder tanks will see this risk reduce over time.	Significant
A number of self locking nuts from other aircraft, of the same specification as that used to secure safety critical fasteners in VH-HFH, were identified to have cracked due to hydrogen embrittlement. [Significant safety issue]	Adequately addressed	Given the prolific number of these locknuts, and how widely dispersed they are throughout the aviation industry, the communication of the potential for embrittlement failure was considered the only feasible safety action that could be taken. Although considered to be ALARP, the risk of a failure of a critical fastener remains significant.	Significant

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
AO-2011-082 <i>Collision with terrain – 23 km WSW Dirranbandi, Queensland, 19 July 2011, VH-FOZ, PZL-Mielec M18A Turbine Dromader (published 22 June 2012)</i>			
The aircraft's centre of gravity varied significantly with hopper weight and could exceed both the forward and aft limits at different times during a flight.	Adequately addressed	The ATSB is satisfied that the actions taken and proposed by CASA and owner/developer of the STC will, when complete, adequately address the safety issue.	Minor

Marine

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
MO-2010-002 <i>Independent investigation into the stevedore fatality on board the Antigua and Barbuda-registered container ship Vega Gotland at Port Botany, NSW on 28 March 2010</i>			
Patrick Terminals' safe work instructions for lashing/unlashing did not specifically cover the recognised safe practices of not working under containers or between moving containers and fixed objects. Consequently, there was a discontinuity between the level of awareness regarding these dangers and the training new employees received during their induction period.	Adequately addressed	Patrick Terminals have undertaken substantial review of the Safe Working Instructions including reference to the new RZP.	Minor
Patrick Terminals' hazard identification process had not identified the dangers of working near or under containers being loaded.	Adequately addressed	Extensive revision of hazard and risk assessments in the terminal.	Minor
Patrick Terminals' risk assessment process for lashing and unlashing operations had not anticipated a fatal accident resulting from being struck by items falling from a portainer or cargo, or from being struck by a moving container. As a result, while the appropriate risk control for this occurrence had been covered during employee training, this was not reinforced in safe work instructions, an important risk control measure.	Adequately addressed	Hazard identification and risk assessments for lashing/unlashing were extensively revised following the accident and the implementation of the terminal's restricted zone protocol.	Minor
Patrick Terminals had no formalised policy in place to provide clear guidance to its stevedoring employees about where they could or could not work on a ship when cargo was being loaded or discharged.	Adequately addressed	Patrick Terminals have introduced a restricted zone into operations on ships.	Minor

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
The implementation of Patrick Terminal's safety management system resulted in an environment where Patrick Terminal management and stevedores were disconnected in relation to the management of some of the day-to-day workplace safety risks. As a result, there was little ownership of the safe work instructions by the stevedores, and some of the more experienced stevedores were probably no longer aware of the risks posed to them when they undertook unsafe 'workarounds' in the workplace and these were not identified by Patrick management.	Adequately addressed	Patrick Terminals have expanded the number of elements in their Safe Working Instructions to better help them manage safety in their terminals.	Minor
The culture which existed in the Patrick Terminals did not encourage the reporting of non-compliances or unsafe acts. Consequently, two critical parts of an effective safety system, which had a direct impact upon its ability to effectively manage safety in the terminal, the 'reporting' culture and the 'just' culture, were either not present or were misunderstood in Patrick Terminal's safety system.	Adequately addressed	Patrick Terminals has, in consultation with its workforce, continued to review, reassess and refresh protocols, training and relevant safe work instructions as necessary and where appropriate, to enhance safety at the Port Botany terminal.	Minor

MO-2010-004 *Independent investigation into the fast rescue boat incident on board the Isle of Man registered liquefied natural gas tanker British Sapphire off Darwin, Northern Territory on 16 May 2010.*

It was found that the safety interlocks on the wave compensator systems on board <i>British Sapphire</i> , <i>British Emerald</i> and <i>British Ruby</i> had been electrically by-passed, thereby preventing the safety interlocks from functioning. As a result, the wave compensators on board all three ships could be engaged regardless of whether the fast rescue boats were waterborne or suspended from the fall wire.	Adequately addressed	Action taken by DI	Minor
The onboard maintenance of the fast rescue boat davit did not include a specific requirement to maintain or test the wave compensator or safety interlock. As a result, the onboard maintenance had not identified the issue with the wave compensator safety interlock	Adequately addressed	Action taken by BP	Minor

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
There was no evidence to indicate that the operation of <i>British Sapphire's</i> (or its sister ships') fast rescue boat davit's wave compensator and safety interlock had been sufficiently tested at the time of the ship's delivery to ensure safe operation	Adequately addressed	Action taken by BP	Minor

MO-2010-007 *Independent investigation into the loss of deck cargo from the Panamanian registered general cargo ship Mimasaka off Coffs Harbour, New South Wales n 4 October 2010*

<i>Mimasaka's</i> cargo securing manual did not contain any information relating to the stowage and securing of timber veneer.	Adequately addressed	The cargo-securing manual has been updated to include guidance on stowage and securing of deck veneer cargo.	Minor
The Operation Manual for Loading and Lashing of Tasmanian/Malaysian Dry Veneer, developed by NYK-Hinode Line for use by ships carrying timber veneer, did not contain any information relating to the stowage and securing of the timber veneer cargo on deck.	Adequately addressed	The manual has been revised and rewritten and now contains detailed guidance for the stowage and securing of timber veneer on deck.	Minor
The instructions that were emailed to <i>Mimasaka's</i> master by NYK-Hinode Line did not provide the crew with proper guidance about how to stow and secure the packs of timber veneer on deck.	Adequately addressed	The operation manual for the stowage and securing of veneer cargo has been revised to cover deck cargo. Therefore emailed instructions should not be necessary in the future.	Minor

Rail

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
RO-2010-004 <i>Collision between Passenger train WT27 and track-mounted excavator near Newbridge NSW 5 May 2010 (published 20 April 2012).</i>			
The ARTC form ANRF-002 (Track Occupancy Authority) was deficient as there was no provision to record critical information regarding the location and type of worksite. Consequently, both the Protection Officer and Network Control Officer incorrectly concluded that the train had passed beyond the limits of the worksite.	Adequately addressed	The ARTC amended the TOA form effective 13 November 2011 and provided an adequate response to address the safety issue.	Minor

SAFETY ISSUE	STATUS	JUSTIFICATION FOR FINALISING ISSUE	RESIDUAL RISK
The track workers were not provided with sufficient training (competency based or structured on-job training) in relation to the hazards and required protections for working under the authority in place at Newbridge on 5 May 2010.	Adequately addressed	The ARTC provided additional training and instruction to Protection Officers and audits of correct completion of all documentation.	Minor
RO-2010-001 <i>Rolling stock irregularity at Exeter NSW 24 January 2010.</i>			
All limestone bulk hopper wagons have been operated up to 15 km/h higher than speeds specified in the Train Operating Conditions Manual, when loaded above 92 t and operated on class 1 or 1C track.	Adequately addressed	The train crew were unaware of the speed restriction, as were Pacific National generally. It was accepted that class F wagons were restricted to a maximum speed of 80km/h, without any caveats on operation. Pacific National management will now monitor conformance of train handling by train crews and speed limitations placed on rolling stock. The ATSB accepts Pacific National's response to operate these wagons within specified speed limits and now believes that there is a minor risk of reoccurrence.	Minor
RO-2011-002 <i>Collision between two suburban passenger trains in Adelaide rail yard on 24 February 2011.</i>			
Public Transport Services procedures permit trains to be dispatched from Adelaide Station towards starting signals that are displaying a stop (red) indication.	Adequately addressed	The Australian Transport Safety Bureau is satisfied that the action proposed by Public Transport Services adequately addresses the safety issue.	Minor
As a defence against driver error, Public Transport Services provide their railcars with a vigilance system comprising a deadman's control and an Automatic Warning System. However, the current system does not protect against 'Starting against Signal' SPAD events as occurred at Adelaide Station.	Adequately addressed	The Australian Transport Safety Bureau is satisfied that the action proposed by Public Transport Services adequately addresses the safety issue.	Minor

Safety actions

Table 18 Summary of safety actions in the 2011–12

SAFETY ACTIONS	AVIATION	MARINE	RAIL	TOTAL
ASSOCIATED WITH SIGNIFICANT SAFETY ISSUES				
Pro-active industry action	20	12	5	37
SANs	2	0	0	2
Safety recommendations	1	0	0	1
ASSOCIATED WITH MINOR SAFETY ISSUES				
Pro-active industry action	36	13	18	67
SANs	0	3	2	5
Safety recommendations	0	0	0	0
NOT ASSOCIATED WITH A SAFETY ISSUE				
SANs	4	0	0	4
Safety recommendations	0	0	0	0
Total	63	28	25	116

Table 19 ATSB recommendations closed in 2011–12

Investigation	AO-2007-017 <i>Total power loss – Jundee Aerodrome, WA – 26 Jun 2007 – VH-XUE – Embraer Brasilia</i>
Safety issue	There was no regulatory requirement for simulator training in Australia
Risk	Significant
Recommendation	AO-2007-017-SR-084
Organisation	Civil Aviation Safety Authority
Released	08 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.

Table 20 Safety recommendations released

Aviation

Safety action number	AO-2009-012-SR-079
Date issued	
Target organisation(s)	US Federal Aviation Administration
SAN	The Australian Transport Safety Bureau recommends that the United States Federal Aviation Administration take action to address the existing take-off certification standards, which are based on the attainment of the take-off reference speeds and flight crew training, which themselves are based on the monitoring of and responding to those speeds, and do not provide crews with a means to detect degraded take-off acceleration.
Linked to safety issue	Linked to significant safety issue
Safety issue	The existing take-off certification standards, which were based on the attainment of the take-off reference speeds, and flight crew training that was based on monitoring of and responding to those speeds, did not provide crews a means to detect degraded take-off acceleration.

Table 21 Safety advisory notices released

Aviation

Safety action number	AO-2009-012-SAN-087
Target organisation(s)	International Air Transport Association
SAN	The Australian Transport Safety Bureau requests the International Air Transport Association encourage its members to develop guidance to assist their flight crews to form appropriate mental models in respect of the weight and corresponding take-off performance parameters for a particular flight. The application by operators of mixed fleet flying increases the need for that guidance.
Linked to safety issue	Linked to significant safety issue
Safety issue	The available Cross-Crew Qualification and Mixed Fleet Flying guidance did not address how flight crew might form an expectation, or conduct a 'reasonableness' check, of the speed/weight relationship for their aircraft during takeoff.

Safety action number	AO-2009-012-SAN-086
Target organisation(s)	Flight Safety Foundation
SAN	The Australian Transport Safety Bureau requests that the Flight Safety Foundation consider developing guidance to assist flight crews form appropriate mental models in respect of the weight and corresponding take-off performance parameters for a particular flight. The use by operators of mixed fleet flying increases the importance of that guidance.
Linked to safety issue	Linked to significant safety issue
Safety issue	The available Cross Crew Qualification and Mixed Fleet Flying guidance did not address how flight crew might form an expectation, or conduct a 'reasonableness' check, of the speed/weight relationship for their aircraft during takeoff.

Safety action number	AO-2009-044-SAN-068
Target organisation(s)	Owners of a variety of single pilot operated pressurised turbine aircraft
SAN	The Australian Transport Safety Bureau encourages all operators of single-pilot, turbine-powered, pressurized aircraft that do not have an aural cabin altitude pressure warning system that operates separately to the visual cabin altitude pressure warning system to consider urgently the fitment of such a system to all of their aircraft.
Linked to safety issue	Stand-alone safety action

Safety action number	AO-2011-016-SAN-001
Target organisation(s)	Operators and maintainers of Robinson R44 helicopters
SAN	The Australian Transport Safety Bureau encourages all operators of hydraulic system-equipped R44 helicopters, and organisations performing inspection, testing, maintenance and repair activities on the flight control systems of those helicopters, to note the circumstances detailed in this preliminary report. It is suggested that those operators and maintenance organisations consider inspecting the security of the hydraulic-boost servos on all hydraulic system-equipped R44 helicopters.
Linked to safety issue	Stand-alone safety action

Safety action number	AO-2011-060-SAN-006
Target organisation(s)	Operators and maintainers of Robinson R22 helicopters
SAN	The Australian Transport safety Bureau encourages all operators of R22 helicopters, and organisations performing installation, inspection, and maintenance activities on the drive belts of R22 helicopters to note the circumstances detailed in this preliminary report. It is suggested that all operators and maintenance organisations consider inspecting the drive belts on R22 helicopters.
Linked to safety issue	Stand-alone safety action

Safety action number	AO-2012-021-SAN-001
Target organisation(s)	Operators and maintainers of Robinson R44 helicopters
SAN	The Australian Transport Safety Bureau encourages all operators and owners of R44 helicopters that are fitted with all-aluminium fuel tanks to note the circumstances of this accident as detailed in this preliminary report. It is suggested that those operators and owners actively consider replacing these tanks with bladder-type fuel tanks as detailed in the manufacturer's Service Bulletin (SB) 78A as soon as possible. In addition, the ATSB highlights the existence and content of SB 82 that aims to reduce the chance of the rotor brake switch as a possible ignition source in the event of a fuel leak.
Linked to safety issue	Stand-alone safety action

Marine

Safety action number	MO-2010-002-SAN-031
Target organisation(s)	National and international maritime, cargo and labour organisations
SAN	The Australian Transport Safety Bureau advises that national and international maritime, cargo and labour organisations should consider the safety implications of this safety issue and take action where considered appropriate.
Linked to safety issue	Linked to a minor safety issue
Safety issue	The recognised safe practices of not working under or near a container being loaded is not well reflected in national and international guidance published to assist container terminal operators develop their own safety policies and guidelines.

Safety action number	MO-2010-004-SAN-016
Target organisation(s)	Ship operators, ship masters and maritime training institutions
SAN	The Australian Transport Safety Bureau advises that ship operators, ship masters and maritime training institutions should consider the safety implications of this safety issue and take action where considered appropriate.
Linked to safety issue	Linked to a minor safety issue
Safety issue	Training institutions delivering approved Seafarer's Training, Certification and Watchkeeping courses are not keeping up to date with the introduction of wave compensation units to ensure their courses provide students with the required knowledge to safely operate these units

Safety action number	MO-2010-006-SAN-015
Target organisation(s)	State and Territory Marine authorities
SAN	The Australian Transport Safety Bureau advises that all state and territory marine authorities should consider the safety issue and take action where considered appropriate.
Linked to safety issue	Linked to a minor safety issue
Safety issue	<i>Global Supplier</i> was built and surveyed as a Uniform Shipping Laws (USL) Code vessel and therefore was not fitted with radar or an AIS unit which would be required under the provisions of the current National Standard for Commercial Vessels. Had these devices been fitted, they would have provided information that would have assisted both <i>Global Supplier's</i> skipper and <i>Far Swan's</i> watch-keepers, in avoiding the collision.

Rail

Safety action number	RO-2010-010-SAN-010
Target organisation(s)	Pacific National Pty Ltd
SAN	The Australian Transport Safety Bureau advises that Pacific National should consider the implications of this safety issue and take action where considered appropriate.
Linked to safety issue	Linked to a minor safety issue
Safety issue	Examination of RailBAM® data established that under PN's existing maintenance guidelines there was no requirement to take wagon RQJW 22034D out of service. However, inspection of the data showed that there was a growing/trending problem with the 2L axle-box.

Safety action number	RO-2010-010-SAN-011
Target organisation(s)	Pacific National Pty Ltd
SAN	The Australian Transport Safety Bureau advises that Pacific National should consider the implications of this safety issue and take action where considered appropriate.
Linked to safety issue	Linked to a minor safety issue
Safety issue	An examination of wheel impact (WILD) data established that under PN's existing maintenance guidelines there was no requirement to take wagon RQJW 22034D out of service. However, running a trend analysis of WILD data clearly showed that there was a growing wheel impact problem.

Section 7

Focus on our technical analysis capability

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Focus on our technical analysis capability

The ATSB Technical Analysis team comprises 12 technical investigators with specialist skills in: aircraft, rail and marine data recorder analysis; aeronautic, electronic and materials engineering; forensic data recovery; and failure analysis. When investigating transport safety occurrences and safety issues, the team provides the ATSB with an enhanced analytical capability—improving our understanding of events and maximising the value obtained from all investigative efforts.

Broadly, the ATSB's Technical Analysis capability is divided into two aligned fields:

Physical evidence analysis

- forensic engineering investigation and failure analysis
- materials performance testing and analysis
- physical system analysis.

Recorded evidence analysis

- vehicle recorder (black box) analysis
- forensic data recovery
- vehicle performance analysis and animation
- audio characterisation and spectral analysis.

The team maintains dedicated facilities within the Canberra central office. The facility is equipped with modern analytical instrumentation to facilitate the recovery, analysis and presentation of information derived from accident site wreckage, vehicle recorders, failed components or any other source of information that may be relevant to the investigation activity.

Key activities and achievements in 2011–12

This section contains details of significant achievements of the team during 2011–12 in support of investigations, external agency support, capability development and interaction with industry.

Investigations

AO–2010–089, In-flight uncontained engine failure, 4 November 2010.

Throughout the year, Technical Analysis investigators continued their examination and scrutiny of the physical evidence and recorded data from this significant event. Information and findings from work on the engine failure, fuel tank fire and recorded data analysis will contribute significantly to the ATSB's final investigation report. Analyses included a detailed examination of the sequence of events that ultimately lead to the uncontained engine failure and the aftermath, with work extending to the examination of system behaviours and responses in the face of the significant damage sustained.

AO–2008–070, In-flight upset, 7 October 2008.

The ATSB's final report into this major safety occurrence was released in December 2011, and benefited significantly from the extensive and in-depth analysis of recorded flight data, systems testing and specialist research into potential failure modes undertaken by the Technical Analysis team.

AO–2010–066, Uncontained engine failure and air-turn back, 30 August 2010.

This investigation, finalised in April 2012, was undertaken by Technical Analysis investigators and focused on a rare sequence of mechanical failures within one of the occurrence Boeing 747's four turbofan engines.

AO–2011–016, Loss of control, Robinson R44 Helicopter, 4 February 2011.

What presented as an inexplicable loss of control accident was soon identified by investigators as a mechanical separation within the helicopter's main rotor flight control system. Technical Analysis specialists subsequently undertook a program of painstaking component testing and analysis in their endeavours to identify any previously unforeseen safety issues that may have been at the centre of the control failure.

External agency assistance and support

Indonesian Transport Safety Assistance Program

ATSB Technical Analysis staff continued to provide close support to the Indonesian National Transportation Safety Committee (NTSC)'s aviation recorder analysis facility. Several recent, high-profile aviation accidents in Indonesia have demonstrated the strength of this new capability, with the NTSC and ATSB teams working collaboratively to achieve timely and accurate outcomes.

Papua New Guinea Accident Investigation Commission (AIC) support

The ATSB's technical investigative support has also extended to the PNG AIC in their study of the October 2011 accident involving a Bombardier DHC–8 passenger aircraft near Madang, PNG. Critical recorded data and material evidence from the accident has been examined by team specialists, with the results of these analyses contributing significantly to the progress of the investigation.

New Zealand Transport Accident Investigation Commission

In January 2012, a passenger-carrying hot-air balloon crashed near Carterton, NZ, with significant loss of life. The ATSB's developing forensic data recovery capability again proved its value, with the retrieval of flight track information from a Global Positioning System unit that was aboard the balloon—information that will be of great assistance to the NZ Transport Accident Investigation Commission investigation team.

Capability development

Specialist software development

A need to convert raw aircraft flight track information into a more accessible and usable format was the genesis of the ATSB's KML Creator, a software utility developed in-house to allow the conversion of latitude, longitude and altitude information into a Google Earth-compatible KML file. The tool has been made publicly available on the ATSB website, and has proven popular among airlines, other safety investigation agencies and the public. 389 copies of the software have been downloaded from the website this year.

Apple iOS device and smart-phone forensics

The popularity of smart-phone technology and portable computing devices, such as the Apple iPad, has provided the ATSB with a new source of data in the investigation of aviation accidents. Increasingly, pilots and passengers of smaller aircraft have been using this technology to create detailed flight tracks or record otherwise useful information. The ATSB Technical Analysis team now has an advanced capability to recover and analyse data from many of these devices—data that has already assisted in the investigation of accidents that may have otherwise remained poorly understood.

Industry interaction

ICAO Flight Recorders Panel

For many years, the ATSB Technical Analysis team has participated as an active member of the ICAO's flight recorder technologies and standards panel. This important role allows the ATSB to contribute directly to future developments in the field of safety-related flight data recording, and to remain abreast of technological developments as they are introduced, considered and implemented as new standards or recommended practices.

IMO Voyage Data Recording standards

In a similar vein to our ICAO flight recorder panel engagement, the ATSB Technical Analysis team works with the Australian Maritime Safety Authority (AMSA) to periodically consider and review changes to the International Maritime Organization's provisions for maritime voyage data recorders.

Rail vehicle data recording

Australia does not have a mandatory requirement for the installation and carriage of data recorders aboard rolling stock. The future introduction of Australian Standard AS 7527 will, however, pave the way for improved consistency across the current variety of installed technologies. The ATSB Technical team has actively contributed to the development of the draft Australian Standard, and continues to advocate for improvements in the adoption of current technologies.

Future development—capacity and capability

The Technical Analysis team, as a key part of the ATSB, will continue to advance best-practice in all aspects of its operations. Contemporary, innovative approaches to the investigation of transport safety occurrences and the identification and study of emerging safety issues will remain a priority for the team into 2012–13 and beyond. Further expanding the team's reach into industry, through greater levels of engagement, communication and technical assistance, will further assist in heightening safety awareness and developing future strategies.

Flying with lithium batteries

Lithium batteries are commonly used in mobile phones and other electronic devices because of their abundant energy. This energy, however, makes them prone to thermal runaway events when they are short-circuited or exposed to heat.

An incident (AO-2011-149) involving a mobile telephone on an aircraft has highlighted the risks of using non-authorised agents to repair lithium battery-powered devices. It also reinforces CASA's advice to protect the terminals of lithium batteries and that they should be carried in the cabin and not in checked-in baggage www.casa.gov.au/dg.

On 25 November 2011, a Saab Aircraft Company S340B was operating on a scheduled passenger service from Lismore to Sydney, New South Wales. During the taxi to the gate after arrival at Sydney a cabin crew member noticed smoke coming from near a passenger seat and instructed the passenger to throw the source of the smoke into the aisle. The cabin crew member discharged a fire extinguisher onto what was later identified as a mobile phone.

The owner of the mobile phone reported that the Apple iPhone had been purchased about a year before the incident and had been repaired about 6 months after purchase, after the screen had been damaged. The repairer was not an authorised Apple service provider.



X-ray showing loose screw in the battery compartment



The ATSB subjected the device to a preliminary X-ray, which revealed an isolated screw located in the battery section of the phone—away from any apparent fixtures associated with the phone's construction. The phone was sent to a specialised examination facility in California where it was subjected to a two-stage investigation by a CT¹⁰ scan analysis and to destructive inspection overseen by a representative from the US Federal Aviation Administration on behalf of the ATSB.

The investigation found that the phone had sustained a thermal runaway event within its lithium battery. A screw from the 30-pin connector at the base of the phone had been misplaced in the battery bay during the repair. Over time, this screw had caused mechanical damage to the battery, resulting in an internal short circuit that led to the runaway event. This event generated a large amount of heat and smoke.

¹⁰ Computerised X-ray Tomography

Section 8

Management and accountability

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Management and accountability

The Commission

The ATSB is governed by a Commission. As at 30 June 2012, the ATSB Commission comprised the 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 2011–12, the Commission met on four occasions. All Commissioners participated in all meetings (using video conferencing facilities when necessary). Commissioners also attended the annual planning workshop held with senior management on 16 March 2012.

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.



ATSB Commission and Executive Members

The Work Health and Safety (WHS) Committee has been established consistent with obligations under the *Work Health and Safety Act 2011*. The Committee met on 10 occasions during 2011–12. Given the sometimes traumatic workplace conditions frequently experienced by transport safety investigators and the possible risks to their health, the WHS Committee has established a separate committee (the Investigator Health Committee) to look into investigator health. The purpose of this Committee is to identify ways of reducing the risk of health and safety problems to investigators on site arising from or being aggravated by personal medical or health issues.

The Professional Committee was established in March 2010 and continues to provide advice to the Executive. The ATSB values open communication and cooperation with employees and their representatives on matters that affect their workplace. The Committee provides a consultation mechanism and draws on the professional capability and experience of staff to improve organisational productivity and effectiveness. The Committee met on six occasions during 2011–12.

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 2011–12—in September 2011, December 2011, March 2012 and June 2012.

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

- the Annual Internal Audit Program for 2011–12
- reviews of the ATSB's Risk Management, Fraud Control and Business Continuity Plans
- preparation of ATSB's Financial Statements
- a review of the internal audit governance framework—including Audit Committee Charter, Internal Audit Charter and Internal Audit Strategic Plan 2011–14.

The audit program for 2011–12 continued to focus on assuring the existence and performance 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:

- the ATSB's workplace health and safety management systems
- the ATSB contribution under the Indonesian Transport Safety Assistance Package (ITSAP)
- ATSB compliance with obligations under the TSI Act
- procurement
- transport safety incident notification data processes
- major accident preparedness.

Business planning and reporting

The Commission held a joint meeting with the ATSB senior management group on 16 March 2012 to develop its Annual Plan for 2012–13.

The plan issued is consistent with:

- the Minister for Infrastructure and Transport's Statement of Expectations for the period 1 July 2011 to 30 June 2013 which was provided on 9 May 2011
- ATSB's Statement of Intent.

All three documents can be found on the ATSB's website.

As part of the Budget process for 2012–13, the ATSB revised its program deliverables and performance indicators for the 2012–13 and out years. The purpose of the revision was to make the performance information more informative by adding a focus on delivering investigations within appropriate time frames rather than simple throughput targets. The new indicators will be reported against in next year's Annual Report.

Risk management

The ATSB reviewed its risk management framework during 2011–12. Following the review, a revised risk management policy and a risk management plan for 2012 were endorsed by the Commission and the Audit Committee before approval by the Chief Commissioner. Risk focus at the enterprise level is in the areas of:

- resourcing and capability
- growth and change
- reputation.

The Commission receives risk management progress reports at its quarterly meetings. Implementation of the Risk Management Plan 2012 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

The ATSB undertook a full review of its Business Continuity Plan in March 2012. Saltbush Consulting was engaged to devise a test plan and to conduct a series of interviews with key personnel to validate the critical function documentation and identify any gaps or issues between planned and actual Business Continuity Plan capabilities.

The review and the test process aimed to:

- limit the likelihood and impact of any interruption to business
- expedite the establishment of business capabilities and service delivery in response to any disruption event
- facilitate the restoration of failed services and systems and the resumption of normal operations.

The Business Continuity Plan ensures that all documentation is up to date and fit for purpose and provides a framework for training and awareness for key personnel. The review and test process has identified a list of corrections and other actions to be taken to ensure that the ATSB is prepared to respond effectively to any interruption to its business capability. We have reported the outcome of the review to the Audit Committee and are working through the action list to complete the review process.

Fraud control

The ATSB revised its fraud risk register and fraud control plan in early 2012 in accordance with the Commonwealth Fraud Control Guidelines that require that the fraud risk assessment and plan be renewed every 2 years. The new plan was endorsed by the Audit Committee before it was approved by the Chief Commissioner. Fraud awareness sessions were conducted in each state office and several in the Canberra office with over 90 per cent of staff attending. Fraud control is a regular agenda item for the Audit Committee and fraud awareness of risks, controls and reporting obligations is a component of the ATSB's induction programs for new officers. No instances of fraud were recorded during the financial year.

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 Australian Public Service Commission's website
- a review of selection procedures, as provided for in section 33 of the *Public Service Act 1999*, being made available to aggrieved employees as necessary
- 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 12 months to maturing its Enabling People Management System. Accordingly, each component of the System's underlying framework (Recruit, Manage, Develop, Retain and Review) is now fully supported by a range of products and personalised services, made readily available to all staff through our new and improved intranet. The main areas of focus have been on our recruitment, induction/probation, learning/development, workforce diversity and continuous improvement practices. By design, this focus has positioned and empowered the ATSB to address the immediate challenges associated with the implementation of the National Safety Investigation Reform agenda and other strategic human capital and organisational capability drivers.

Staffing profile

The ATSB has increased its staffing profile from 113 at the start of July 2011 to 123 by the end of June 2012. This total incorporates several non-ongoing employees and therefore the average staffing level was 119. Table 22 displays the ATSB staff numbers, by classification, at 30 June 2012.

Table 22: ATSB staffing profile at 30 June 2012

SUBSTANTIVE CLASSIFICATION	FEMALE (FULL TIME)	FEMALE (PART TIME)	MALE (FULL TIME)	MALE (PART TIME)	TOTAL
Statutory Office Holders		1	1	1	3
Senior Executive Service (SES) Band 1			2		2
EL 2	4	1	57	1	63
EL 1	8		19		27
APS 6	3		6		9
APS 5	11	1	4		16
APS 4	2		1		3
Total	28	3	90	2	123

This total is comprised of the following employment arrangements:

- 118 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 employment arrangements in place which include provision for performance pay.

The ATSB staff turnover rate has risen slightly from 7.0 to 8.9 per cent.

Salary rates

Table 23 displays the salary rates supporting the above employment arrangements, at 30 June 2012.

Table 23: ATSB salary rates at 30 June 2012

SUBSTANTIVE CLASSIFICATION	MINIMUM (\$)	MAXIMUM (\$)
Statutory Office Holders	As determined through the Remuneration Tribunal	
SES1	161,310	188,389
EL 2	105,266	129,378*
EL 1	88,580	102,179*
APS 6	70,462	82,225*
APS 5	63,752	68,836
APS 4	57,105	62,053

*Maximums include Transport Safety Investigator and respective supervisor's salaries, representing a \$1,806 – \$9,231 increase on standard APS6 – EL2 rates.

Organisational culture

A comparison of the recently released State of the Service Census results with benchmark indicators established through our earlier staff survey suggests that the majority of ATSB staff continue to have a positive attitude towards their working environment. This satisfaction may have been influenced by a range of initiatives generated through our internal Professional Committee, including:

- implementation of the new Workforce Diversity Program 2011–14
- upgraded Transport Safety Investigator Work Level Standards
- an in–depth review of our current investigation practices in terms of greater efficiencies and increased quality assurance
- further refinements of several employment procedures
- expansion of our reward and recognition platform.

Of particular note, the ATSB has determined that it is important to acknowledge formally those individuals who have dedicated themselves to extended periods of service. Accordingly there were five 20–year, six 15–year and thirteen 10–year service awards presented over 2011–12. Considering the ATSB's relatively small size, these numbers provide powerful evidence of the ongoing professionalism and willing commitment of the ATSB's staff.

Training and development

As a Registered Training Organisation, the ATSB awarded an additional four Transport Safety Investigation Diplomas in 2011–12. Concurrently, in support of the National Safety Investigation Reform agenda we have provided a number of training opportunities for our colleagues from both the Office of Transport Safety Investigation (NSW) and the Chief Investigator Transport Safety (Victoria).

In accordance with individual staff development plans the ATSB facilitated many productive and worthwhile opportunities for professional development and industry awareness. Approximately 12 per cent of staff engaged in higher level tertiary pursuits. The ATSB has also continued to develop and deliver a blended range of corporate and public service learning opportunities.

Assets management

As at 30 June 2012 the ATSB had assets with a book value of \$3.066m. This included specialised computer equipment and software such as teleconferencing units, air traffic control and aircraft data recorder equipment, electron and optical microscopes and other specialised technical equipment used in investigations by ATSB staff.

The largest single asset is the ATSB Safety Investigation Information Management System (SIIMS). SIIMS provides an integrated view of transport safety notifications, occurrences, investigations, research, analysis and safety actions and it establishes the definitive record of each investigation.

Purchasing

ATSB purchases goods and services in accordance with the Commonwealth Procurement Guidelines. These guidelines 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 2011–12 was \$277,492. This comprised:

- \$24,000 on external legal services
- \$253,492 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 Guidelines (CPGs) and relevant internal policies.

During the year 12 new consultancy services contracts were let for a total actual expenditure of \$0.413m (GST included).

There were 4 ongoing consultancy contracts active in the reporting year for a total expenditure of \$0.072m (GST included).

Details of consultancies engaged during 2011–12 can be found on the AusTender website at <https://www.tenders.gov.au/>

Exempt contracts

No contracts were exempted from publication on Aus Tender on public interest grounds during 2011–12.

External scrutiny and participation

Response to Senate Inquiry

On 23 June 2011, the Senate Rural and Transport References Committee handed down its report from its inquiry into 'Pilot training and airline safety; and consideration of the Transport Safety Investigation Amendment (Incident Reports) Bill 2010'.

On 22 November 2011 the Government tabled its response in the Senate.

Copies of the Inquiry's report and the Government's response are available at: www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=rat_ctte/pilots_2010/index.htm

The non-government Bill, the 'Transport Safety Investigation Amendment (Incident Reports) Bill 2010', was directed at making amendments to the ATSB's accident and incident notifications scheme. The Bill was not supported by the Inquiry or the Government.

The ATSB has been consulting separately on reforms to its notifications scheme. A draft set of regulations was released in July 2012.

Coronial inquests

In 2011–12, five coronial inquests involved 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.

Jenkinson (ATSB Investigation RO–2010–004)

On 8 June 2012 State Coroner Jerram of New South Wales handed down her findings into an accident involving a collision between an XPT passenger train and a track-mounted excavator. One person was fatally injured in the collision that occurred on 5 May 2010 near Newbridge in New South Wales.

The ATSB released its investigation findings on 20 April 2012. 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/2010/rair/ro-2010-004.aspx

O'Donoghue and Costin (ATSB investigation 200605843)

On 24 April 2012 the Deputy State Coroner of New South Wales handed down his findings into an accident involving a Strikemaster aircraft. Two persons were fatally injured in the accident that occurred on 5 October 2006 in the Turon State Forest about 20km to the north-east of Bathurst in New South Wales.

The ATSB released its investigation findings on 9 May 2012. 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/2006/aair/aair200605843.aspx

How (ATSB Investigation AO–2008–082)

On 28 February 2012 State Coroner Coate of Victoria handed down her findings into an accident involving a Cessna 172M aircraft. One person was fatally injured in the accident that occurred on 25 December 2008 near Leongatha in Victoria.

The ATSB released its investigation findings on 7 May 2009. 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-2008-082.aspx

Catargiu, Cousins, Pinney and Thomas (ATSB Investigation AO–2008–062)

On 3 October 2011 the Deputy State Coroner of Western Australia handed down his findings into an accident involving a R44 Robinson helicopter. Four persons were fatally injured in the accident that occurred on 14 September 2008 near Purnululu ALA in Western Australia.

The ATSB released its investigation findings on 7 July 2010. 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-2008-062.aspx

Henderson (ATSB Investigation AO–2004–02797)

On 30 September 2011 the Deputy State Coroner of Victoria handed down her findings into an accident involving a Piper PA31T aircraft. One person was fatally injured in the accident that occurred on 28 July 2004 near Benalla in Victoria.

The ATSB released its investigation findings on 2 March 2009. 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/2004/aair/aair200402797.aspx

International

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO)

In 2011–12 the ATSB actively participated in a number of forums relating to the International Civil Aviation Organization (ICAO).

SIPTF

An ATSB representative is on the ICAO Safety Information Protection Taskforce (SIPTF) which 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 is expected to complete its work in 2013.

APRAST

An ATSB representative is the vice chair of the ICAO Asia Pacific Regional Aviation Safety Team (APRAST) Accident Investigation ad hoc Working Group which met in June 2012. The objective of the Working Group is to make recommendations within the region relating to accident investigations that will reduce risks

FLICREP

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

Section 9

Financial statements

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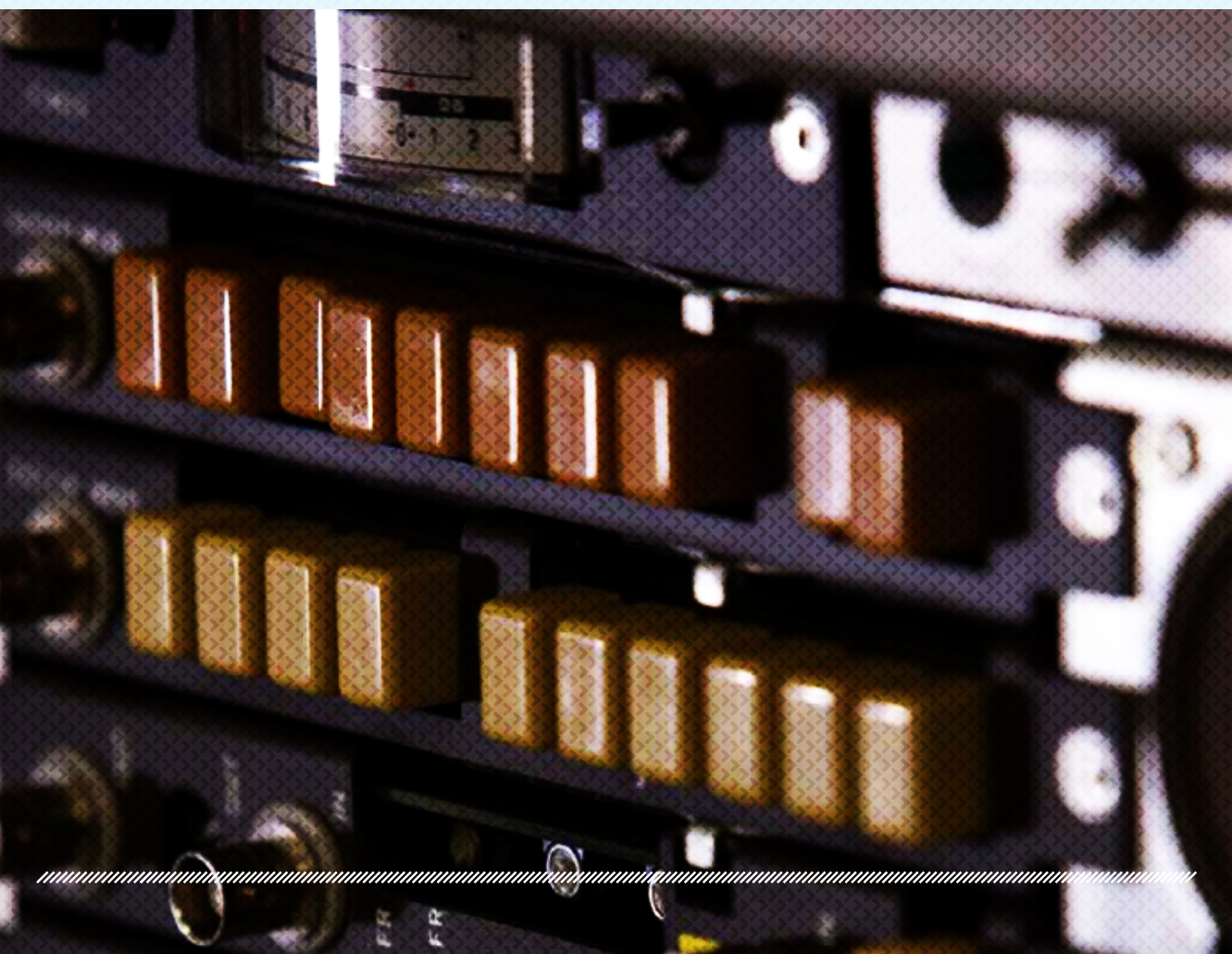



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INDEPENDENT AUDITOR'S REPORT

To the Minister for Infrastructure and Transport

I have audited the accompanying financial statements of the Australian Transport Safety Bureau for the year ended 30 June 2012, 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; and Notes comprising a Summary of Significant Accounting Policies.

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.

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

GPO Box 707 CANBERRA ACT 2601
19 National Circuit SABBAP ACT 2600
Phone (02) 6705 7300 Fax (02) 6201 1777

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 2012 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

28 September 2012



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 2012 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.

Handwritten signature of Martin Dolan in black ink.

Martin Dolan
Chief Executive Officer

28 September 2012

Handwritten signature of Jane Childs in black ink.

Jane Childs
Acting Chief Financial Officer

28 September 2012

Statement of Comprehensive Income
for the period ended 30 June 2012

	Notes	2012 \$'000	2011 \$'000
EXPENSES			
Employee benefits	3A	(15,917)	(14,876)
Supplier	3B	(6,848)	(6,204)
Depreciation and amortisation	3C	(1,110)	(1,165)
Finance costs	3D	(1)	(2)
Write-down and impairment of assets	3E	(9)	(1)
Losses from asset sales	3F	(8)	-
Total expenses		(23,893)	(22,248)
LESS:			
OWN-SOURCE INCOME			
Own-source revenue			
Sale of goods and rendering of services	4A	1,181	1,006
Total own-source revenue		1,181	1,006
Gains			
Other gains	4B	48	47
Total gains		48	47
Total own-source income		1,229	1,053
Net cost of services		(22,664)	(21,195)
Revenue from Government	4C	21,308	19,806
Total comprehensive loss		(1,356)	(1,389)
Total comprehensive loss attributable to the Australian Government		(1,356)	(1,389)

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

Balance Sheet*as at 30 June 2012*

	Notes	2012 \$'000	2011 \$'000
ASSETS			
Financial Assets			
Cash and cash equivalents	<u>5A</u>	1,292	833
Trade and other receivables	<u>5B</u>	7,195	7,204
Other financial assets	<u>5C</u>	1	9
Total financial assets		<u>8,488</u>	<u>8,046</u>
Non-Financial Assets			
Property, plant and equipment	<u>6A,B</u>	1,138	1,135
Intangibles	<u>6C,D</u>	1,928	2,219
Other non-financial assets	<u>6E</u>	198	137
Total non-financial assets		<u>3,264</u>	<u>3,491</u>
Total assets		<u>11,752</u>	<u>11,537</u>
LIABILITIES			
Payables			
Suppliers	<u>7A</u>	(692)	(274)
Other payables	<u>7B</u>	(490)	(415)
Total payables		<u>(1,182)</u>	<u>(689)</u>
Interest Bearing Liabilities			
Leases	<u>8A</u>	(5)	(24)
Total interest bearing liabilities		<u>(5)</u>	<u>(24)</u>
Provisions			
Employee provisions	<u>9A</u>	(4,852)	(4,232)
Total provisions		<u>(4,852)</u>	<u>(4,232)</u>
Total liabilities		<u>(6,039)</u>	<u>(4,945)</u>
Net assets		<u>5,713</u>	<u>6,592</u>
EQUITY			
Contributed equity		8,084	7,606
Reserves		85	85
Accumulated deficit		(2,456)	(1,099)
Total equity		<u>5,713</u>	<u>6,592</u>

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

Statement of Changes in Equity
for the period ended 30 June 2012

	Retained earnings		Asset revaluation surplus		Contributed equity/capital		Total equity	
	2012	2011	2012	2011	2012	2011	2012	2011
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Opening balance								
Balance carried forward from previous period	(1,099)	289	85	-	7,606	7,001	6,592	7,290
Adjustment for errors	-	-	-	-	-	219	-	219
Adjusted opening balance	(1,099)	289	85	-	7,606	7,220	6,592	7,509
Comprehensive income								
Revaluation for the period	-	-	-	85	-	-	-	85
Deficit for the period	(1,356)	(1,389)	-	-	-	-	(1,356)	(1,389)
Total comprehensive income	(1,356)	(1,389)	-	85	-	-	(1,356)	(1,304)
Transactions with owners								
Contributions by owners								
Equity injection - Appropriations	-	-	-	-	63	-	63	-
Departmental capital budget	-	-	-	-	415	386	415	386
Sub-total transactions with owners	-	-	-	-	478	386	478	386
Closing balance as at 30 June	(2,456)	(1,099)	85	85	8,084	7,606	5,713	6,592
Closing balance attributable to the Australian Government	(2,456)	(1,099)	85	85	8,084	7,606	5,713	6,592

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

Cash Flow Statement*for the period ended 30 June 2012*

	Notes	2012 \$'000	2011 \$'000
OPERATING ACTIVITIES			
Cash received			
Appropriations		21,128	21,206
Sales of goods and rendering of services		1,267	925
Net GST received		177	152
Other		261	184
Total cash received		22,833	22,467
Cash used			
Employees		(15,305)	(14,738)
Suppliers		(6,444)	(6,543)
Borrowing costs		(1)	(2)
Other		(246)	(199)
Total cash used		(21,996)	(21,482)
Net cash from operating activities	10	837	985
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		1	-
Total cash received		1	-
Cash used			
Purchase of property, plant and equipment		(445)	(39)
Purchase of software		(393)	(312)
Total cash used		(838)	(352)
Net cash used by investing activities		(837)	(352)
FINANCING ACTIVITIES			
Cash received			
Contributed equity		478	386
Total cash received		478	386
Cash used			
Repayment of finance leases		(19)	(48)
Loan (overdraft)		-	(160)
Total cash used		(19)	(208)
Net cash from financing activities		459	178
Net increase in cash held		459	811
Cash and cash equivalents at the beginning of the reporting period		833	22
Cash and cash equivalents at the end of the reporting period	5A	1,292	833

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

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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 2012 in accordance with the accounting policies disclosed in note 1.18; and
- b) The estimate of the ATSB's long service leave liabilities as at 30 June 2012 were determined using the short hand method set out in the FMO's and discounted to present value using Commonwealth Government bond rates.

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

No other new standards / revised standards / interpretations / amending standards that were issued prior to the sign-off date and are applicable to the future reporting period 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 (refer to Note 1.7).

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 reference to the Australian Government Shorthand Method outlined in the FMO's for reporting periods ending on or after 1 July 2011. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Separation and Redundancy

Provision is made for separation and redundancy benefit payments 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.

The ATSB made separation and redundancy payments of \$122,066 during 2011-12 – refer to Note 3A Employee Benefits.

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 2012 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; or
- 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.

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 Investments in Associates

The ATSB has no investment in associates.

1.14 Jointly Controlled Entities

The ATSB has no interest in jointly controlled entities.

1.15 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).

1.16 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 remote contingent assets or liabilities.

1.17 Financial Guarantee Contracts

The ATSB has no financial guarantee contracts.

1.18 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.

1.19 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.

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:

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

Impairment

All assets were assessed for impairment at 30 June 2012. 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.

1.20 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 2012.

1.21 Inventories

The ATSB has no inventories.

1.22 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.

1.23 Prior Period Errors

The followings changes in classification have been made to provide more reliable and relevant information about the ATSB's financial performance.

- a) The Appropriation note included in the 2010-11 financial statements was incorrectly calculated in several areas. As per section 12.51P of the FMO's all prior period errors relating to the Appropriations have been corrected as they are material by nature. The errors made in the 2010-11 statements, subsequently corrected in the 2011-12 financial statements are as follows:
 - 1. Table A - The Departmental Capital Budget (DCB) funding and the DCB applied, were incorrectly included in equity. This resulted in ordinary annual services being understated by \$386,000 and equity being overstated by \$386,000. The total amount has now been removed from equity and added to ordinary annual services as per the requirements of the FMO's;
 - 2. Table A - Section 30A GST receipts, were incorrectly recognised in the Section 30 receipts. The correct Section 30 receipts should have been nil, not \$152,074 as previously stated. This amount has been removed as the table is calculated on a GST exclusive basis as per the FMO's;

3. Table A - Section 31 receipts were incorrectly calculated and have since been adjusted to match the cash flow statement. The correct Section 31 receipts should have been \$994,970, not \$1,104,470 as previously stated;
 4. Table A – The appropriation applied amount has been adjusted to include the application of DCB funding in ordinary annual services as per the requirements of the FMO's and corrected for an error in the calculation. The correct amount that should have been reported for the 2010-11 appropriation applied amount was \$21.446m, instead of \$21.143m.
 5. Table C – The cash balance for 2010-11 has been included in the unspent Departmental annual appropriations table within the 2011-12 financial statements. An amount of \$833,499 was not included in the table, leading to an understatement of this amount; and
 6. In 2010-11 the ATSB made a disclosure as an agent for the Department of Infrastructure and Transport (Note 15 – Table C of the 2010-11 financial statements) in relation to Annual Appropriations. The ATSB is not an agent for the Department of Infrastructure and Transport, and has never held drawing rights in relation to any of their appropriations. Therefore in the 2011-12 statements this table has been removed.
- b) In 2011-12, a change to the classification of the workers compensation expenses occurred. The workers compensation expense is now included in Other Supplier expenses. This resulted in a change in comparatives with Supplier expenses increasing by \$88,803 and Employee Benefits decreasing by \$88,803. As such, there was no effect to the loss attributable to the ATSB in 2010-11; and
 - c) A prior period adjustment was also made to Accumulated Depreciation for Computer Equipment in relation to the account being overstated by \$1,838. This prior period adjustment has impacted the accumulated depreciation for the 2011 figure in Note 6A, increasing the figure from \$211,922 to \$213,760. The prior period adjustment did not have an impact on the net book value of the property, plant and equipment class of assets.

Note 2: Events After the Reporting Period

No events have occurred after the reporting period that require disclosure as subsequent events in respect of the 2011-12 financial statements.

Note 3: Expenses

	2012 \$'000	2011 \$'000
Note 3A: Employee Benefits		
Wages and salaries	(12,024)	(11,274)
Superannuation:		
Defined contribution plans	(592)	(508)
Defined benefit plans	(1,453)	(1,415)
Leave and other entitlements	(1,641)	(1,460)
Separation and redundancies	(122)	(127)
Other employee expenses ¹	(85)	(92)
Total employee benefits	(15,917)	(14,876)

1. Other employee expenses consist mainly of Fringe Benefits Tax expenses and relocation expenses for ATSB employees.

Note 3B: Supplier**Goods and services**

Office rent	(1,779)	(1,649)
Travel expenses	(1,217)	(991)
Services from the Department of Infrastructure and Transport	(495)	(492)
Information technology	(446)	(461)
Training and conferences	(438)	(306)
Services from consultants	(419)	(167)
Communications	(308)	(238)
Contract staff	(293)	(223)
Contracted services	(286)	(550)
Investigation services	(204)	(204)
Publications and printing	(182)	(201)
Audit fees	(46)	(45)
Legal	(22)	(68)
Other goods and services	(532)	(520)
Total goods and services	(6,667)	(6,115)

Goods and services are made up of:

Provision of goods – related entities	-	-
Provision of goods – external parties	(81)	(72)
Rendering of services – related entities	(3,345)	(3,108)
Rendering of services – external parties	(3,241)	(2,935)
Total goods and services	(6,667)	(6,115)

Workers compensation expenses	(181)	(89)
Total other supplier expenses	(181)	(89)
Total supplier expenses	(6,848)	(6,204)

Note 3C: Depreciation and Amortisation**Depreciation:**

Property, plant and equipment	(407)	(294)
Finance Leases	(18)	(45)
Total depreciation	(425)	(339)

Amortisation:

Intangibles	(685)	(826)
Total amortisation	(685)	(826)
Total depreciation and amortisation	(1,110)	(1,165)

Note 3D: Finance Costs

Finance leases	(1)	(2)
Total finance costs	(1)	(2)

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)	(1)
Total write-down and impairment of assets	(9)	(1)

Note 3F: Losses from Asset Sales**Property, plant and equipment:**

Proceeds from sale	2	-
Carrying value of assets sold	(10)	-
Selling expense	-	-
Total losses from asset sales	(8)	-

Note 4: Income

	2012	2011
	\$'000	\$'000

OWN-SOURCE REVENUE

Note 4A: Sale of Goods and Rendering of Services

Rendering of services - related entities	1,165	851
Rendering of services - external parties	16	155
Total sale of goods and rendering of services	1,181	1,006

GAINS

Note 4B: Other Gains

Resources received free of charge - ANAO Audit	46	45
Other	2	2
Total other gains	48	47

REVENUE FROM GOVERNMENT

Note 4C: Revenue from Government

Appropriations:

Departmental appropriations	21,308	19,806
Total revenue from Government	21,308	19,806

Note 5: Financial Assets

	2012 \$'000	2011 \$'000
<u>Note 5A: Cash and Cash Equivalents</u>		
Cash on hand or on deposit	1,292	833
Total cash and cash equivalents	1,292	833
<u>Note 5B: Trade and Other Receivables</u>		
Goods and Services:		
Goods and services - related entities	49	4
Goods and services - external parties	16	72
Total receivables for goods and services	65	76
Appropriations receivable:		
For existing programs	565	-
For departmental supplementations	6,342	6,727
Total appropriations receivable	6,907	6,727
Other receivables:		
GST receivable from the Australian Taxation Office	223	401
Total other receivables	223	401
Total trade and other receivables (gross)	7,195	7,204
Total trade and other receivables (net)	7,195	7,204
Receivables are expected to be recovered in:		
No more than 12 months	288	477
More than 12 months	6,907	6,727
Total trade and other receivables (net)	7,195	7,204
Receivables are aged as follows:		
Not overdue	7,195	7,186
Overdue by:		
0 to 30 days	-	14
31 to 60 days	-	-
61 to 90 days	-	-
More than 90 days	-	4
Total receivables (gross)	7,195	7,204
<u>Note 5C: Other Financial Assets</u>		
Accrued revenue	1	9
Total other financial assets	1	9
Total other financial assets - are expected to be recovered in:		
No more than 12 months	1	9
More than 12 months	-	-
Total other financial assets	1	9

Note 6: Non-Financial Assets

	2012 \$'000	2011 \$'000
Note 6A: Property, Plant and Equipment		
Other property, plant and equipment:		
Fair value	1,768	1,349
Accumulated depreciation	(630)	(214)
Total other property, plant and equipment	1,138	1,135
Total property, plant and equipment	1,138	1,135

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 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 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	1,580	1,580
Accumulated depreciation and impairment	(442)	(442)
Net book value 30 June 2012	1,138	1,138

Note 6B (Cont'd): Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment 2011

	Other property, plant & equipment \$'000	Total \$'000
As at 1 July 2010		
Gross book value	1,530	1,530
Accumulated depreciation and impairment	(479)	(479)
Net book value 1 July 2010	1,051	1,051
Additions:		
By purchase or internally developed	120	120
Revaluations recognised in the revaluation reserve	85	85
Impairments recognised in the operating result	(1)	(1)
Depreciation expense	(339)	(339)
Other movements	219	219
Net book value 30 June 2011	1,135	1,135
Net book value as of 30 June 2011 represented by:		
Gross book value	1,349	1,349
Accumulated depreciation and impairment	(214)	(214)
Net book value 30 June 2011	1,135	1,135

Other movements: The \$219,481 of assets relates to assets not identified during the restructure in 2009-10. The assets have not been recognised in the prior period as it has been ruled as impracticable to determine the amount of the adjustment that related to 2009-10.

Note 6: Non-Financial Assets continued

	2012	2011
	\$'000	\$'000
Note 6C: Intangibles		
Computer software:		
Internally developed – in progress	456	173
Internally developed – in use	3,998	3,998
Purchased	285	174
Accumulated amortisation	(2,811)	(2,126)
Total computer software	1,928	2,219
Total intangibles	1,928	2,219

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 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

Note 6D (Cont'd): Reconciliation of the Opening and Closing Balances of Intangibles 2011

	Computer software internally developed \$'000	Computer software purchased \$'000	Total \$'000
As at 1 July 2010			
Gross book value	3,950	95	4,045
Accumulated amortisation and impairment	(1,283)	(17)	(1,300)
Net book value 1 July 2010	2,667	78	2,745
Additions:			
By purchase or internally developed	221	79	300
Amortisation	(799)	(27)	(826)
Net book value 30 June 2011	2,089	130	2,219
Net book value as of 30 June 2011 represented by:			
Gross book value	4,171	174	4,345
Accumulated amortisation and impairment	(2,082)	(44)	(2,126)
Net book value 30 June 2011	2,089	130	2,219

Note 6E: Other Non-Financial Assets

Prepayments	198	137
Total other non-financial assets	198	137
Total other non-financial assets - are expected to be recovered in:		
No more than 12 months	179	137
More than 12 months	19	-
Total other non-financial assets	198	137

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

Note 7: Payables

	2012 \$'000	2011 \$'000
Note 7A: Suppliers		
Accrued expenses	(250)	(274)
Trade creditors	(442)	-
Total suppliers payables	(692)	(274)
Suppliers payables expected to be settled within 12 months:		
Related entities	(25)	-
External parties	(667)	(274)
Total	(692)	(274)
Total suppliers payables	(692)	(274)
Settlement was usually made within 30 days.		
Note 7B: Other Payables		
Wages and salaries	(366)	(332)
Superannuation	(57)	(83)
Unearned income	(67)	-
Total other payables	(490)	(415)
Total other payables are expected to be settled in:		
No more than 12 months	(490)	(415)
More than 12 months	-	-
Total other payables	(490)	(415)

Note 8: Interest Bearing Liabilities

	2012 \$'000	2011 \$'000
Note 8A: Leases		
Finance leases	(5)	(24)
Total finance leases	(5)	(24)
Payable:		
Within one year:		
Minimum lease payments	(5)	(20)
Deduct: future finance charges	-	1
In one to five years:		
Minimum lease payments	-	(5)
Deduct: future finance charges	-	-
Finance leases recognised on the balance sheet	(5)	(24)

In 2012, Finance leases existed in relation to certain office equipment assets. The leases were non-cancellable and for fixed terms of 4 years. The interest rate implicit in the leases averaged 5.20% (2011: 12.35%). 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

	2012 \$'000	2011 \$'000
<u>Note 9A: Employee Provisions</u>		
Leave	<u>(4,852)</u>	<u>(4,232)</u>
Total employee provisions	<u>(4,852)</u>	<u>(4,232)</u>
Employee provisions are expected to be settled in:		
No more than 12 months	<u>(2,153)</u>	<u>(1,816)</u>
More than 12 months	<u>(2,699)</u>	<u>(2,416)</u>
Total employee provisions	<u>(4,852)</u>	<u>(4,232)</u>

Note 10: Cash Flow Reconciliation

	2012 \$'000	2011 \$'000
Reconciliation of cash and cash equivalents as per Balance Sheet to Cash Flow Statement		
Cash and cash equivalents as per:		
Cash flow statement	1,292	833
Balance sheet	<u>1,292</u>	<u>833</u>
Difference	<u>-</u>	<u>-</u>
 Reconciliation of net cost of services to net cash from operating activities:		
Net cost of services	(22,664)	(21,195)
Add revenue from Government	<u>21,308</u>	<u>19,806</u>
 Adjustments for non-cash items		
Depreciation / amortisation	1,110	1,165
Net write down of non-financial assets	7	1
Net write down of financial assets	2	-
Loss on sale of assets	8	-
 Changes in assets / liabilities		
(Increase) / decrease in net receivables	9	1,194
(Increase) / decrease in prepayments	(61)	(33)
(Increase) / decrease in accrued revenue	8	-
Increase / (decrease) in unearned revenue	67	(16)
Increase / (decrease) in employee provisions	620	545
Increase / (decrease) in supplier payables	434	(118)
Increase / (decrease) in other payables	8	(315)
Increase / (decrease) in finance lease payables	<u>(19)</u>	<u>(49)</u>
Net cash from operating activities	<u>837</u>	<u>985</u>

Note 11: Senior Executive Remuneration

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

	2012	2011
	\$	\$
Short-term employee benefits:		
Salary	(681,989)	(710,288)
Annual leave accrued	(53,732)	(62,012)
Allowances	(18,761)	(15,296)
Total short-term employee benefits	(754,482)	(787,596)
Post-employment benefits:		
Superannuation	(92,456)	(110,465)
Total post-employment benefits	(92,456)	(110,465)
Other long-term benefits:		
Long-service leave	(16,816)	(20,218)
Total other long-term benefits	(16,816)	(20,218)
Total employment benefits	(863,754)	(918,279)

Notes:

- Note 11A is prepared on an accrual basis (therefore the performance bonus expenses disclosed above may differ from the cash 'Bonus paid' in Note 11B).
- Note 11A excludes acting arrangements and part-year service where total remuneration expensed for a senior executive was less than \$150,000.

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 ¹	2012					
	Senior Executives No.	Reportable salary ² \$	Contributed superannuation ³ \$	Reportable allowances ⁴ \$	Bonus paid ⁵ \$	Total \$
Total remuneration (including part-time arrangements):						
less than \$150,000	2	51,161	9,302	-	-	60,463
\$150,000 to \$179,999	-	-	-	-	-	-
\$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	1	312,222	39,231	16,421	-	367,874
Total	5					

Average annual reportable remuneration ¹	2011					
	Senior Executives No.	Reportable salary ² \$	Contributed superannuation ³ \$	Reportable allowances ⁴ \$	Bonus paid ⁵ \$	Total \$
Total remuneration (including part-time arrangements):						
less than \$150,000	2	49,496	8,962	-	-	58,458
\$150,000 to \$179,999	-	-	-	-	-	-
\$180,000 to \$209,999	3	166,047	38,975	-	-	205,022
\$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	1	319,832	38,519	10,842	-	369,193
Total	6					

Notes:

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); and
 - b) reportable fringe benefits (at the net amount prior to 'grossing up' to account for tax benefits).
3. The 'contributed superannuation' amount is the average actual superannuation contributions paid to senior executives in that reportable remuneration band during the reporting period, including any salary sacrificed amounts, as per the individuals' payslips.
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. Various salary sacrifice arrangements were available to senior executives including superannuation, motor vehicle and expense payment fringe benefits. Salary sacrifice benefits are reported in the 'reportable salary' column, excluding salary sacrificed superannuation, which is reported in the 'contributed superannuation' column.

Note 11: Senior Executive Remuneration continued

Note 11C: Other Highly Paid Staff

2012						
Average annual reportable remuneration ¹	Staff No.	Reportable salary ² \$	Contributed superannuation ³ \$	Reportable allowances ⁴ \$	Bonus paid ⁵ \$	Total \$
Total remuneration (including part-time arrangements):						
\$150,000 to \$179,999	1	128,468	42,562	-	-	171,030
\$180,000 to \$209,999	-	-	-	-	-	-
\$210,000 to \$239,999	1	142,681	70,721	-	-	213,402
\$240,000 to \$269,999	-	-	-	-	-	-
Total	2					

2011						
Average annual reportable remuneration ¹	Staff No.	Reportable salary ² \$	Contributed superannuation ³ \$	Reportable allowances ⁴ \$	Bonus paid ⁵ \$	Total \$
Total remuneration (including part-time arrangements):						
\$150,000 to \$179,999	-	-	-	-	-	-
\$180,000 to \$209,999	-	-	-	-	-	-
\$210,000 to \$239,999	-	-	-	-	-	-
\$240,000 to \$269,999	-	-	-	-	-	-
Total	-					

Notes:

1. This table reports staff:

- who were employed by the entity during the reporting period;
- whose reportable remuneration was \$150,000 or more for the financial period; and
- were not required to be disclosed in Tables A, B or director disclosures.

Each row is an averaged figure based on headcount for individuals in the band.

2. 'Reportable salary' includes the following:

- gross payments;
- reportable fringe benefits (at the net amount prior to 'grossing up' to account for tax benefits).

3. The 'contributed superannuation' amount is the average actual superannuation contributions paid to staff in that reportable remuneration band during the reporting period, including any salary sacrificed amounts, as per the individual's payslips.

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.

6. Various salary sacrifice arrangements were available to other highly paid staff including superannuation, motor vehicle and expense payment fringe benefits. Salary sacrifice benefits are reported in the 'reportable salary' column, excluding salary sacrificed superannuation, which is reported in the 'contributed superannuation' column.

Note 12: Remuneration of Auditors

	2012	2011
	\$'000	\$'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)	(45)
Total	(46)	(45)

No other services were provided by the ANAO.

Note 13: Financial Instruments

	2012	2011
	\$'000	\$'000

Note 13A: Categories of Financial Instruments

Financial Assets

Loans and receivables:

Cash and cash equivalents	1,292	833
Trade and other receivables	65	76
Total	1,357	909
Carrying amount of financial assets	1,357	909

Financial Liabilities

Trade creditors	(442)	-
Finance leases	(5)	(24)
Total	(447)	(24)
Carrying amount of financial liabilities	(447)	(24)

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	(1)	(2)
Net loss from financial liabilities - at amortised cost	(1)	(2)
Net loss from financial liabilities	(1)	(2)

Note 13D: Fair Value of Financial Instruments

	Carrying amount 2012 \$'000	Fair value 2012 \$'000	Carrying amount 2011 \$'000	Fair value 2011 \$'000
Financial Assets				
Cash and cash equivalents	1,292	1,292	833	833
Trade and other receivables	65	65	76	76
Total	1,357	1,357	909	909
Financial Liabilities				
Trade creditors	(442)	(442)	-	-
Finance leases	(5)	(5)	(24)	(24)
Total	(447)	(447)	(24)	(24)

Note 13E: Credit Risk

The ATSB is exposed to minimal credit risk as loans and receivables are cash, trade and other receivables. The ATSB assessed the risk of default on payment and has allocated nil in 2012 to an impairment allowance account.

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

	2012 \$'000	2011 \$'000
Financial assets		
Trade and other receivables	65	76
Total	65	76
Financial liabilities		
Trade creditors	(442)	-
Total	(442)	-

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
	2012	2011	2012	2011
	\$'000	\$'000	\$'000	\$'000
Trade receivables	65	58	-	18
Total	65	58	-	18

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	-	-	-	-	-

Ageing of financial assets that were past due but not impaired for 2011

	0 to 30 days	31 to 60 days	61 to 90 days	90+ days	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
Trade receivables	14	-	-	4	18
Total	14	-	-	4	18

Note 13F: Liquidity Risk

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

Maturities for non-derivative financial liabilities 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)

Maturities for non-derivative financial liabilities 2011

	On demand	within 1 year	1 to 2 years	2 to 5 years	> 5 years	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Finance leases	-	(19)	(5)	-	-	(24)
Total	-	(19)	(5)	-	-	(24)

The ATSB had no derivative financial liabilities in either 2012 or 2011.

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 equipment. The leases were established at a fixed rate of interest and repayments do not fluctuate with movements in market interest rates.

Note 14: Financial Assets Reconciliation

		2012	2011
		\$'000	\$'000
<u>Financial assets</u>	Notes		
Total financial assets as per balance sheet		8,488	8,046
Less: non-financial instrument components:			
Appropriations receivable	5B	6,907	6,727
GST receivable from the Australian Taxation Office	5B	223	401
Other financial assets	5C	1	9
Total non-financial instrument components		<u>7,131</u>	<u>7,137</u>
Total financial assets as per financial instruments note		<u>1,357</u>	909

Note 15: Appropriations**Table A: Annual Appropriations ('Recoverable GST exclusive')**

	2012 Appropriations						Appropriation applied in 2012 (current and prior years) \$'000	Variance \$'000			
	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
DEPARTMENTAL	21,723	-	-	-	1,398	-	23,121	(22,204)	917		
Ordinary annual services	63	-	-	-			63	(63)	-		
Other services	21,786	-	-	-	1,398	-	23,184	(22,267)	917		
Equity											
Total departmental											

Notes:

1. Appropriations reduced under Appropriation Acts (Nos. 1,3&5) 2011-12: sections 10, 11, and 12 and under Appropriation Acts (Nos. 2,4&6) 2011-12: 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.

	2011 Appropriations							Appropriation applied in 2011 (current and prior years) \$'000	Variance \$'000
	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		
DEPARTMENTAL									
Ordinary annual services	20,192	-	-	-	994	-	21,186	(21,446)	(260)
Total departmental	20,192	-	-	-	994	-	21,186	(21,446)	(260)

Notes:

1. Appropriations reduced under Appropriation Acts (Nos. 1 & 3) 2010-11: sections 10, 11, 12 and 15 and under Appropriation Acts (Nos. 2&4) 2010-11: 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')**

	2012 Capital Budget Appropriations			Capital Budget Appropriations applied in 2012 (current and prior years)			
	<i>Appropriation Act</i>	<i>FMA Act</i>	Total Capital Budget Appropriations \$'000	Payments for non-financial assets ³ \$'000	Payments for other purposes \$'000	Total payments \$'000	Variance \$'000
	Annual Capital Budget \$'000	Appropriations reduced ² \$'000					
DEPARTMENTAL Ordinary annual services - Departmental Capital Budget ¹	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.

	2011 Capital Budget Appropriations			Capital Budget Appropriations applied in 2011 (current and prior years)			
	<i>Appropriation Act</i>	<i>FMA Act</i>	Total Capital Budget Appropriations \$'000	Payments for non-financial assets ³ \$'000	Payments for other purposes \$'000	Total payments \$'000	Variance \$'000
	Annual Capital Budget \$'000	Appropriations reduced ² \$'000					
DEPARTMENTAL Ordinary annual services - Departmental Capital Budget ¹	386	-	-	(352)	-	(352)	34

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) 2010-11: 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')**

	2012	2011
Authority	\$'000	\$'000
DEPARTMENTAL		
Appropriation Act (No. 1) 2007-08	4,756	5,101
Appropriation Act (No. 1) 2009-10	1,586	1,625
Appropriation Act (No. 1) 2011-12	565	-
Cash	1,292	833
Total	8,199	7,559

Note 16: Compensation and Debt Relief

	2012 \$	2011 \$
Compensation and Debt Relief - Departmental		
No 'Act of Grace payments' were expended during the reporting period (2011: no payments).	-	-
No waivers of amounts owing to the Australian Government were made pursuant to subsection 34(1) of the <i>Financial Management and Accountability Act 1997</i> . (2011: no waivers)	-	-
No payments were provided under the Compensation for Detriment caused by Defective Administration (CDDA) Scheme during the reporting period. (2011: no payments)	-	-
No ex-gratia payments were provided for during the reporting period. (2011: 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 (2011: no payments).	-	-

Note 17: Reporting of Outcomes**Note 17A: Net Cost of Outcome Delivery**

	Outcome 1		Total	
	2012	2011	2012	2011
	\$'000	\$'000	\$'000	\$'000
Departmental				
Expenses	(23,893)	(22,248)	(23,893)	(22,248)
Own-source income	1,229	1,053	1,229	1,053
Net cost of outcome delivery	(22,664)	(21,195)	(22,664)	(21,195)

Note 17B: Major Classes of Departmental Expense, Income, Assets and Liabilities by Outcome

	Outcome 1		Total	
	2012	2011	2012	2011
	\$'000	\$'000	\$'000	\$'000
Expenses				
Employees	(15,917)	(14,876)	(15,917)	(14,876)
Suppliers	(6,848)	(6,204)	(6,848)	(6,204)
Depreciation and amortisation	(1,110)	(1,165)	(1,110)	(1,165)
Write-down and impairment of assets	(9)	(1)	(9)	(1)
Losses from asset sales	(8)	-	(8)	-
Finance costs	(1)	(2)	(1)	(2)
Total	(23,893)	(22,248)	(23,893)	(22,248)
Income				
Revenue from Government	21,308	19,806	21,308	19,806
Sale of goods and rendering of services	1,181	1,006	1,181	1,006
Other	48	47	48	47
Total	22,537	20,859	22,537	20,859
Assets				
Cash and cash equivalents	1,292	833	1,292	833
Trade and other receivables	7,196	7,213	7,196	7,213
Property, plant and equipment	1,138	1,135	1,138	1,135
Intangibles	1,928	2,219	1,928	2,219
Other	198	137	198	137
Total	11,752	11,537	11,752	11,537
Liabilities				
Suppliers	(692)	(274)	(692)	(274)
Other payables	(490)	(415)	(490)	(415)
Employee provisions	(4,852)	(4,232)	(4,852)	(4,232)
Interest bearing liabilities	(5)	(24)	(5)	(24)
Total	(6,039)	(4,945)	(6,039)	(4,945)

Note 18: Net Cash Appropriation Arrangements

	2012	2011
	\$'000	\$'000
Total comprehensive loss less depreciation/amortisation expenses previously funded through revenue appropriations¹	(246)	(224)
Plus: depreciation/amortisation expenses previously funded through revenue appropriation		
	(1,110)	(1,165)
Total comprehensive loss - as per the Statement of Comprehensive Income	(1,356)	(1,389)

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.

Section 10

Other required reporting

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Other required reporting

Work health and safety

In readiness for the implementation of the new *Work Health and Safety Act 2011* (WHS Act), the ATSB facilitated an external audit of its existing Occupational Health and Safety Management System. As anticipated, given its focus and maturity, the subsequent audit report and findings confirmed a high level of compliance. With this platform established, our dedicated Work Health and Safety Committee were well placed to adopt the new legislative requirements. All changes have been communicated to our staff through the dissemination of various publications, specialised training courses and general information and guidance on our intranet.

In addition to this enabling work, the ATSB has continued to deliver a number of new and existing initiatives including:

- a new procedure for dealing with asbestos on accident sites
- the establishment of a dedicated carer's room catering for first aid, family care and nursing mothers
- representation at the annual Sydney Safety Show
- the establishment of a sub-committee to review investigator fitness-for-duty requirements
- another health week that provided employees with the opportunity to receive flu vaccinations and comprehensive health assessments.

During 2011–12, there were no compensation claims submitted to Comcare, nor any reportable incidents under the former and current WHS Act.

In terms of other wellbeing indicators, eight per cent of staff accessed the employee assistance program, and the unscheduled absence rate per full time equivalent decreased from 12 to 7.25 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), what records the ATSB holds, and what arrangements the ATSB has in place for outside participation.

Agencies subject to the *Freedom of Information Act 1982* (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 5 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 requests received during the year

The ATSB received 26 new requests for access to documents under the FOI Act in 2011–12.

Table 24 provides details of freedom of information requests and the time taken to make decisions on freedom of information matters from 2009–10 to 2011–12.

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

TABLE 24 Freedom of information requests and performance

	2009–10	2010–11	2011–12
Volume of requests handled			
Requests on hand at 1 July (A)	1	1	1
New requests received (B)	12	13	26
Requests withdrawn (C)	6	8	12
Requests transferred in full to another agency (D)	0	0	1
Requests on hand at 30 June (E)	1	1	5
Total requests finalised (A+B–C–D–E)	6	5	9
Timeliness of response to requests¹¹			
0–30 days	3	3	4
31–60 days	2	2	4
61–90 days	0	0	0
>90 days	1	0	1

Review of FOI decisions

During 2011–12, one application was submitted to the OAIC for Information Commissioner's review on our ATSB FOI decision for access to documents. The application was later withdrawn by the applicant.

Administrative Appeal Tribunal (AAT) review of FOI decisions

No ATSB FOI decisions were subject to AAT reviews in 2011–12.

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, 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

¹¹ 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

- 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 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>. This information is updated annually.

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 2011–12 the ATSB spent \$13,115.93 on advertising for recruitment. The ATSB paid \$40,000 for market research. The ATSB did not conduct any advertising campaigns during 2011–12.

Ecologically sustainable development and environmental performance

ATSB monitors the National Australian Built Environment Rating System (NABERS) rating of its accommodation, which is currently 4.5 star for its Canberra accommodation and seeks to reduce energy usage through efficient use of lighting and office machines. We use the Online System for Comprehensive Activity Reporting (OSCAR) tool to report energy use to the Department of Climate Change and Energy Efficiency under the Energy Efficiency in Government Operation (EEGO) policy.

ATSB participated in Earth Hour in March 2012, by shutting down power for an hour in the Canberra and interstate offices.

In April 2012, ATSB developed a Data Centre Optimisation Policy Targets (DCOT) plan aimed at driving down the operating costs of ATSB's data centre and reducing data centre CO₂ emissions output to help meet the Government's energy efficiency targets. The plan aims to:

- introduce energy management of hardware to monitor and reduce power consumption
- enable CPU power saving features
- introduce high efficiency power supplies when next considering server or hardware refresh
- increase data centre air temperature to 23–25 °C
- power down servers when not in use
- decommission old systems.

During 2011–12, the ATSB continued to seek ways to minimise the environmental impact of its day-to-day activities by:

- 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)
- promoting the use of portable notebook computers over desktops as the latter use up to 30 per cent less energy to run
- setting each printer's default settings 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-activated lighting in our offices
- reduction of the effects of direct sunlight on air-conditioning systems by installing blinds or tinting where appropriate.

Grant programs

The ATSB did not provide any grants during the 2011–12 financial year.

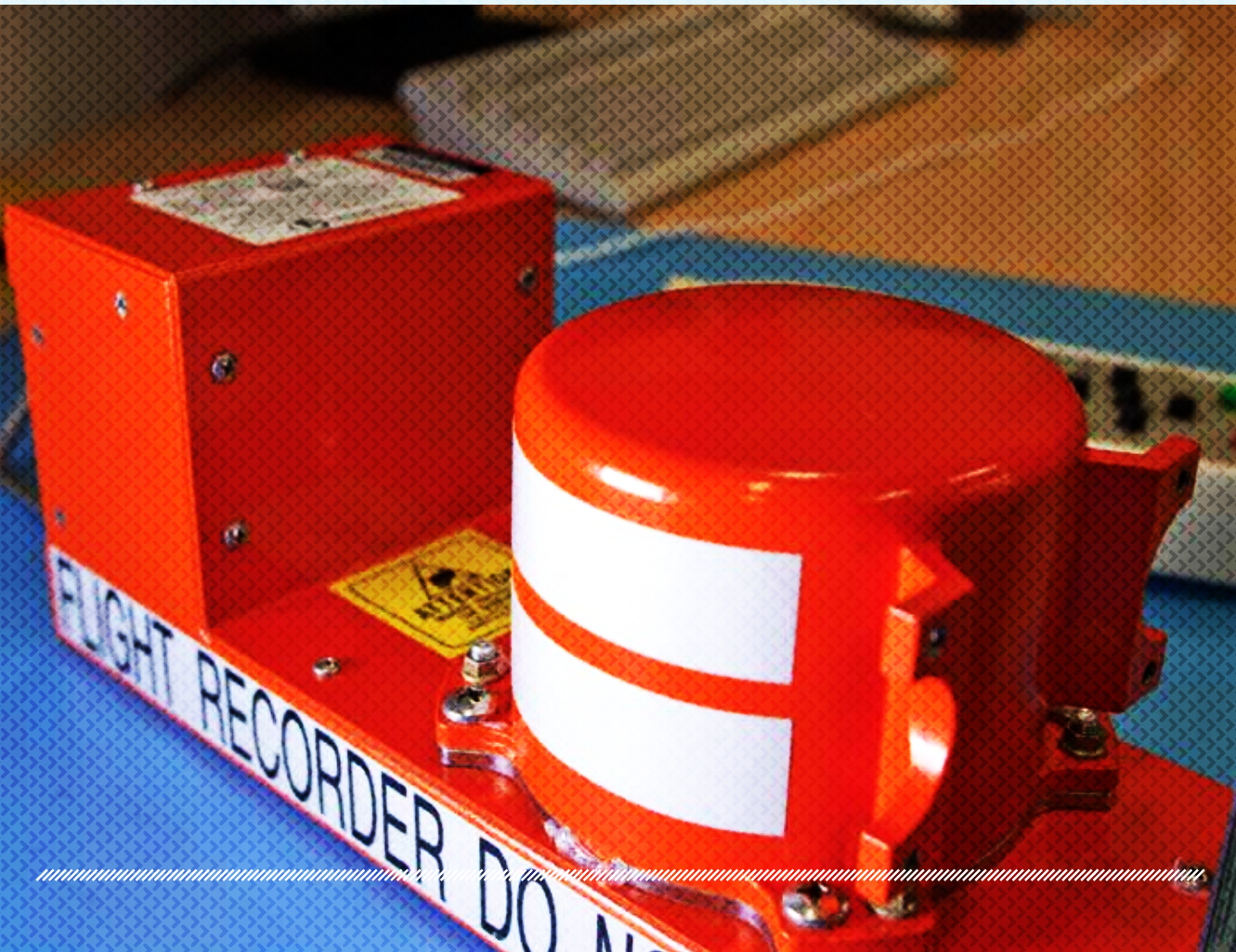
Changes to disability reporting in annual reports

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 which sets out a ten year national policy framework for improving life for Australians with disability, their families and carers. A high level report to track progress for people with disability at a national level will be produced by the Standing Council on Community, Housing and Disability Services to the Council of Australian Governments and will be available at www.fahcsia.gov.au. The Social Inclusion Measurement and Reporting Strategy agreed 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.

Section 11

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Glossary

Accident	An investigable matter involving a transport vehicle where: <ul style="list-style-type: none"> • A person dies or suffers serious injury as a result of an occurrence associated with the operation of a vehicle. • The vehicle is destroyed or seriously damaged as a result of an occurrence associated with the operation of the vehicle. • 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
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 appointed in the case of safety occurrences involving Australian registered aircraft outside Australian territory, normally an ATSB investigator
Blood-borne pathogen	A blood-borne agent causing disease that can be spread by contamination by blood
CASA	Civil Aviation Safety Authority
CASA PNG	Civil Aviation Safety Authority of Papua New Guinea
Catastrophic accident	Sudden disastrous investigable matter involving a transport vehicle
Charter	Operations that involve the carriage of cargo or passengers but do not involve scheduled flights; the lack of scheduled flights and fixed departure and arrival points distinguishes charter operations from RPT operations
Commercial air transport	Commercial air transport refers to scheduled and non-scheduled commercial operations used for the purposes of transporting passengers and/or cargo for hire or reward; specifically, this includes high capacity regular public transport (RPT), low capacity RPT, and charter operations
Contributing safety factor	A safety factor that, if it had not occurred or existed at the relevant time, then: <ul style="list-style-type: none"> • the occurrence would probably not have occurred • adverse consequences associated with the occurrence would probably not have occurred or have been as serious • another contributing safety factor would probably not have occurred or existed
CVR	Cockpit Voice Recorder
Defined Interstate Rail network (DIRN)	The DIRN comprises over 10,000 route kilometres of standard gauge interstate track linking the Capital cities of mainland Australia.

Directly Involved Party (DIP)	Those individuals or organisations that were directly involved in a transport safety occurrence or may have influenced the circumstances that led to an occurrence and/or whose reputations are likely to be affected following the release of the investigation report
Fatal accident	A transport accident in which at least one fatality results within 30 days of the accident
Fatality/Fatal injury	Any injury acquired by a person involved in a transport accident and which results in death within 30 days of the accident
Flight recorder (black box)	A recorder placed in an aircraft for the purpose of facilitating the investigation of an aircraft accident or incident.
Flying training	Flying under instruction for the issue or renewal of a licence, rating, aircraft type endorsement or any other type of flying aimed at upgrading an individual's flight qualification, including solo navigation exercises conducted as part of a course of applied flying training; check and training operations conducted by RPT operators are also included
General aviation (GA)	All flying activities outside of scheduled(RPT) and non-scheduled (charter) passenger and freight operations, including aerial work, flying training, private/business operations, and sports aviation; general aviation in this report does not include Australian non-VH registered aircraft
Hours flown	Calculated from the time that the wheels start, with the intention of flight, to the time the wheels stop after completion of the flight
Human factors	The practice of applying scientific knowledge from varied, mostly human science disciplines such as psychology, medicine, anthropometrics and physiology to designing, building, maintaining and managing systems and products; includes 'Ergonomics'
Immediately reportable matter	A serious transport safety matters that covers occurrences such as: <ul style="list-style-type: none"> • accidents involving death • serious injury • destruction or serious damage of vehicles or property • when an accident nearly occurs
Incident	An occurrence, other than an accident, associated with the operation of a transport vehicle that affects or could affect the safety of operation
Military aviation	Any aircraft registered to a military authority such as the Australian Defence Force
Minor injury	An injury sustained by a person in an accident that was not a fatal or serious injury and does not require hospitalisation
Missing aircraft	An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.
Multi-modal	Across the three modes: aviation, marine and rail
National Transportation Safety Committee (NTSC)	Indonesian Government institution responsible for the investigation of safety deficiencies in aviation, maritime and land transport
Occurrences – accidents and incidents	Occurrences are reportable matters: either an immediately reportable matter (IRM) or routine reportable matter (RRM). They comprise accidents, serious incidents and incidents.
Other aerial work	Includes operations conducted for the purposes of aerial work other than 'flying training' and 'agricultural operations'; operations classified as other aerial work include aerial surveying and photography, spotting, aerial stock mustering, search and rescue, ambulance, towing (including glider, target and banner towing), advertising, cloud seeding, fire fighting, parachute dropping, and coastal surveillance
Portfolio Budget Statements (PBS)	These statements explain the provisions of the Appropriation Bills (Budget Bills), that is, where the appropriate funds are going to be spent.
Private/business	Private flying is conducted for recreational or personal transport, while the business category refers only to the use of aircraft as a means of transport to support a business or profession without the aircraft generating revenue directly.

Regular public transport (RPT)	<p>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:</p> <ul style="list-style-type: none"> • Low capacity RPT—An RPT aircraft that provides a maximum of 38 passenger seats, or a maximum payload no greater than 4,200 kg • High capacity RPT—An RPT aircraft that provides more than 38 passenger seats, or a maximum payload greater than 4,200 kg
Registered Training Organisation (RTO)	An organisation registered, in accordance with the Australian Quality Training Framework Standards for Registered Training Organisations, to provide specific vocational education and training and/or assessment services
REPCON	Report Confidential—The aviation confidential reporting scheme
REPCON Marine	Report Confidential—The marine confidential reporting scheme
RFDS	Royal Flying Doctor Service
Safety action	<p>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:</p> <ul style="list-style-type: none"> • 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	<p>A safety factor that:</p> <ul style="list-style-type: none"> • can reasonably be regarded as having the potential to adversely affect the safety of future operations • is a characteristic of an organisation or a system, rather than a characteristic of a specific individual, or characteristic of an operational environment at a specific point in time
Safety recommendation	ATSB safety recommendations are formal recommendations by the ATSB to an organisation for it to address a specific safety issue. They focus on stating the problem (i.e. the description of the safety issue.) They do not identify specific solutions for reducing risk.
SAR	Search and rescue
Serious incident	An incident involving circumstances indicating that an accident nearly occurred
Serious Injury	<p>An injury which is sustained by a person in an accident and which:</p> <ul style="list-style-type: none"> • requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received • results in a fracture of any bone (except simple fractures of fingers, toes, or nose) • involved lacerations which cause severe haemorrhage, nerve, muscle or tendon damage • involves injury to any internal organ • involves second or third degree burns, or any burns affecting more than five per cent of the body surface • involves verified exposure to infectious substances or injurious radiation.

SIIMS	Safety Investigation Information Management System
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 <i>Public Service Act 1999</i> .
Systemic failure	A breakdown in the system as a whole
Transport safety matter	As defined by <i>Transport Safety Investigation Act 2003</i> , these matters consist of occurrences in which: <ul style="list-style-type: none"> • 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 nearaccident • 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	<i>Transport Safety Investigation Act 2003</i>

List of requirements

PART OF REPORT	DESCRIPTION	REQUIREMENT	PAGE
	Letter of transmittal	Mandatory	ii
	Table of contents	Mandatory	iii
	Index	Mandatory	141
	Glossary	Mandatory	134–137
	Contact officer(s)	Mandatory	Inside front cover
	Internet home page address and Internet address for report	Mandatory	Inside front cover

REVIEW BY SECRETARY

	Review by departmental secretary	Mandatory	2–6
	Summary of significant issues and developments	Suggested	5
	Overview of department's performance and financial results	Suggested	21–22, 33–34
	Outlook for following year	Suggested	6
	Significant issues and developments – portfolio	Portfolio departments – suggested	N/A

DEPARTMENTAL OVERVIEW

	Role and functions	Mandatory	8–11
	Organisational structure	Mandatory	12
	Outcome and program structure	Mandatory	15
	Where outcome and program structures differ from PB Statements/ PAES or other portfolio statements accompanying any other additional appropriation bills (other portfolio statements), details of variation and reasons for change	Mandatory	N/A
	Portfolio structure	Portfolio departments – mandatory	N/A

REPORT ON PERFORMANCE

	Review of performance during the year in relation to programs and contribution to outcomes	Mandatory	21–23
	Actual performance in relation to deliverables and KPIs set out in PB Statements/PAES or other portfolio statements	Mandatory	21–22
	Where performance targets differ from the PBS/ PAES, details of both former and new targets, and reasons for the change	Mandatory	N/A
	Narrative discussion and analysis of performance	Mandatory	21–23, 36–40, 42–50
	Trend information	Mandatory	42–50
	Significant changes in nature of principal functions/ services	Suggested	31–32

PART OF REPORT	DESCRIPTION	REQUIREMENT	PAGE
	Performance of purchaser/provider arrangements	If applicable, suggested	N/A
	Factors, events or trends influencing departmental performance	Suggested	2–6, 10
	Contribution of risk management in achieving objectives	Suggested	77
	Social inclusion outcomes	If applicable, mandatory	78, 132
	Performance against service charter customer service standards, complaints data, and the department's response to complaints	If applicable, mandatory	28, 78
	Discussion and analysis of the department's financial performance	Mandatory	33–34
	Discussion of any significant changes from the prior year, from budget or anticipated to have a significant impact on future operations.	Mandatory	N/A
	Agency resource statement and summary resource tables by outcomes	Mandatory	34

MANAGEMENT AND ACCOUNTABILITY

Corporate Governance

	Agency heads are required to certify that their agency comply with the Commonwealth Fraud Control Guidelines.	Mandatory	77
	Statement of the main corporate governance practices in place	Mandatory	75–78
	Names of the senior executive and their responsibilities	Suggested	12–14
	Senior management committees and their roles	Suggested	75
	Corporate and operational planning and associated performance reporting and review	Suggested	76–77
	Approach adopted to identifying areas of significant financial or operational risk	Suggested	77
	Policy and practices on the establishment and maintenance of appropriate ethical standards	Suggested	78
	How nature and amount of remuneration for SES officers is determined	Suggested	79

External Scrutiny

	Significant developments in external scrutiny	Mandatory	81–82, 129
	Judicial decisions and decisions of administrative tribunals	Mandatory	81–82, 129
	Reports by the Auditor-General, a Parliamentary Committee or the Commonwealth Ombudsman	Mandatory	81

Management of Human Resources

	Assessment of effectiveness in managing and developing human resources to achieve departmental objectives	Mandatory	78–80
	Workforce planning, staff turnover and retention	Suggested	79
	Impact and features of enterprise or collective agreements, individual flexibility arrangements (IFAs), determinations, common law contracts and AWAs	Suggested	79
	Training and development undertaken and its impact	Suggested	80

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PART OF REPORT	DESCRIPTION	REQUIREMENT	PAGE
	Work health and safety performance	Suggested	127
	Productivity gains	Suggested	31,76
	Statistics on staffing	Mandatory	78–79
	Enterprise or collective agreements, IFAs, determinations, common law contracts and AWAs	Mandatory	79
	Performance pay	Mandatory	79
Assets management	Assessment of effectiveness of assets management	If applicable, mandatory	80
Purchasing	Assessment of purchasing against core policies and principles	Mandatory	80
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	80–81
Australian National Audit Office Access Clauses	Absence of provisions in contracts allowing access by the Auditor-General	Mandatory	81
Exempt contracts	Contracts exempt from the AusTender	Mandatory	81
Financial Statements	Financial Statements	Mandatory	83–125
Other Mandatory Information			
	Work health and safety (Schedule 2, Part 4 of the Work Health and Safety Act 2011)	Mandatory	127
	Advertising and Market Research (Section 311A of the Commonwealth Electoral Act 1918) and statement on advertising campaigns	Mandatory	131
	Ecologically sustainable development and environmental performance (Section 516A of the Environment Protection and Biodiversity Conservation Act 1999)	Mandatory	131
	Compliance with the agency's obligations under the Carer Recognition Act 2010	If applicable, mandatory	N/A
	Grant programs	Mandatory	132
	Disability reporting – explicit and transparent reference to agency level information available through other reporting mechanisms	Mandatory	132
	Information Publication Scheme statement	Mandatory	127–128
	Correction of material errors in previous annual report	If applicable, mandatory	N/A
	List of Requirements	Mandatory	138–140

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Australian Government

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