Australian Government
Australian Transport Safety Bureau

ATSB

AUSTRALIA'S NATIONAL TRANSPORT SAFETY INVESTIGATOR

Strategic Plan

WHAT WE DO

- INVESTIGATE
- INFLUENCE
- RESEARCH

TRANSPORT MODES

RAIL AVIATION MARINE

Angus Mitchell

ATSB Chief Commissioner and Chief Executive Officer

This plan with its vision, mission, and supporting goals and strategies, responds to the statement of expectations the Minister for Infrastructure, Transport, Regional Development and Local Government issued for the ATSB for the period 2023 to 2025.

We initiated the development of our new strategic plan to better position the agency to make the most effective use of our resources, and to ensure we continue to improve transport safety for the greatest public benefit through our independent investigations and influencing safety action. Developed and led by our staff, the plan provides a roadmap for the ATSB to engage with stakeholders domestically and internationally in pursuit of this mission.

There are challenges in a rapidly changing transport environment. The ATSB is preparing to meet those challenges arising out of advances in technology, new service delivery models, evolving regulatory standards and varying financial conditions. With respect to the ATSB's own resourcing, we will be prepared to provide input into the Review of Operations and Financial Sustainability of Australia's Transport Safety and Investigatory Bodies announced in the 2023–24 budget. We will also be prepared to implement actions arising from the Government's Aviation White Paper and government reviews that may affect the extent of the ATSB's modal jurisdiction.

Amongst the challenges there are some great opportunities for the ATSB to do more in this changing environment. We have highly skilled-staff who are committed to supporting the transport industries to benefit from the ATSB's investigative, research and data analysis resources to prevent accidents. Working multi-modally at a national level ensures safety lessons can cut across jurisdictions, reaching the broadest possible audience. The content we create across different communication channels continues to get high levels of engagement and our partnerships with educational institutions and industry bodies enhances capability amongst safety professionals.

This strategic plan builds on the great safety work of the ATSB. With the ATSB's staff, I am excited to have set a path for the ATSB to meet the future expectations of the Government, industry and the travelling public.

SCAN FOR MORE INFO ABOUT ATSB

ATSB

VISION Transport without accidents

MISSION We improve transport safety for the greatest public benefit through our independent investigations and influencing safety action

GOALS

A To influence positive transport safety outcomes through independently identifying and sharing safety concerns and fostering safety awareness, knowledge and action.

B To position the ATSB to be Australia's national transport safety investigator, maximising safety outcomes across transport sectors through growth and innovation.

C To be an enduring and adaptable organisation that delivers on its mission across changing environments by investing in its people, systems and partnerships.

STRATEGIES

ATSB will maintain its high-quality investigations, whilst optimising the efficiency and effectiveness of investigation processes, management structures and resource allocation to deliver high-value safety information and maximise safety benefit.

Engage and partner with key stakeholders to influence safety outcomes and improve trust and understanding of ATSB's brand.

A Increase the priority given to data analysis, research and safety studies to identify and highlight safety concerns.

B Respond to the Minister's Statement of Expectations for the ATSB as to how the ATSB's resourcing is applied for the greatest public benefit.

C Foster a positive organisational culture through commitment to diligent leadership, good governance, continual learning, consultation, inclusion, and wellbeing.

2022–23 ATSB OPERATIONAL STATISTICS

In 2022–23:

Occurrences

	5 YEAR AVERAGE
AVIATION	5,123
MARINE	205
RAIL*	18,514

*Average was used for 2022-23 as rail data yet to be finalised by ONRSR at time of publication.

We have up to **90** **ACTIVE INVESTIGATIONS** at any point in time.

We identified **62** **SAFETY ISSUES** in 2022–23

New Investigations

ATSB initiated:

- 64 AVIATION
- 4 MARINE
- 7 RAIL

PUBLISHED

ATSB completed and published:

- 59 COMPLEX AND INDUSTRY-SIGNIFICANT INVESTIGATION REPORTS
- 14 OCCURRENCE BRIEFS

2022–23 SAFETY ACTIONS

- 51 PROACTIVE SAFETY ACTIONS
- 2 SAFETY ADVISORY NOTICE
- 14 SAFETY RECOMMENDATIONS

REPCON (Confidential Reporting Scheme) notifications received by the ATSB safety reporting team:

- 85 AVIATION
- 2 MARINE
- 31 RAIL

ATSB HAS

103 employees across Australia.

ATSB ANALYSIS MODEL

The analysis model is used to identify and assess the existence and influence of safety factors in relation to an accident or incident.

OUTCOMES FROM PAST INVESTIGATIONS

CO EXPOSURE
(AO-2017-118)

Carbon monoxide exposure likely significantly degraded the ability of the pilot of a Beaver floatplane to safely operate the aircraft before it collided with the waters of Jerusalem Bay on the Hawkesbury north of Sydney, fatally injuring all six people on board.

Several pre-existing cracks in the aircraft engine's exhaust collector ring very likely released exhaust gas into the engine/accessory bay, which then very likely entered the cabin through holes in the main firewall where three bolts were missing. The pilot also undertook a 27-minute taxi – to free the dock for another arriving and departing aircraft – before the passengers were boarded which likely exacerbated the pilot's elevated carboxyhaemoglobin level.

Toxicology results identified that the pilot and passengers had higher than normal levels of carboxyhaemoglobin in their blood.

The pilot would have almost certainly experienced effects such as confusion, visual disturbance and disorientation.

The investigation highlighted that the use of an attention attracting CO detector provides pilots with the best opportunity to detect CO exposure before it adversely affects their ability to control the aircraft or become incapacitated.

PATROL BOAT GROUNDING
(MO-2017-009)

The grounding of a patrol boat on Henry Reef revealed underlying safety issues with the effectiveness of training, software updates for electronic chart display and information systems (ECDIS) and the use of a single point feature to represent relatively large physical features on electronic navigational charts.

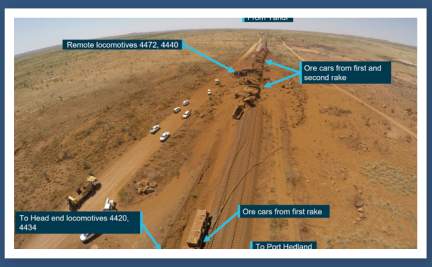
While planning a passage from the Torres Strait to Lizard Island, the patrol boat's amended route was inadvertently plotted over Henry Reef.

The ship's electronic chart display and information system (ECDIS) identified the reef as a danger to the planned route, however, the crew did not identify the danger either visually or by using ECDIS. The vessel continued on the amended route and grounded on Henry Reef just after midnight. There were no reported injuries or oil pollution, but the vessel sustained substantial damage.

The ATSB found the crew's ability to check the amended route was limited as their training was not effective in preparing them for the operational use of their on board ECDIS.

The ATSB's investigation highlighted that the safe and effective use of ECDIS as the primary means of navigation depends on operators being thoroughly familiar with the operation, functionality, capabilities and limitations of the specific equipment in use on board their vessel.

IRON ORE TRAIN RUNWAY
(RO-2018-018)



After an automated emergency brake application due to the separation of an inter-car connector had stopped a fully-loaded 42,500 tonne, 2.86 km iron ore train, the train subsequently ran-away while the driver was applying manual handbrakes to each ore car. The train travelled more than 90 km across WA's Pilbara region before being intentionally derailed at a crossover. There were no injuries, however, train runaways can carry significant financial and economic costs.

The ATSB's investigation found that, while integrating a new electronically-controlled pneumatic braking system with a number of already complex systems into its iron ore trains, the operator managed this integration at an individual system level, rather than with a structured engineering approach. Subsequently the operator did not identify and manage significant characteristics of how these systems interacted in response to certain fault conditions.

In addition, the investigation identified that, while the operator's risk assessment for its rail network identified numerous causes and critical controls for incidents such as runaways, it was broad in scope and had limited focus on the causes and critical controls for a train runaway event.

This investigation highlights that when integrating complex systems, rail operators should utilise a systems engineering approach to manage risk.