

Annual Report Ripoata Ā-tau

2023/2024

Prepared and published in accordance with the requirements of the Crown Entities Act 2004



Transport Accident Investigation Commission Te Kōmihana Tirotiro Aituā Waka Annual Report 2024

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15 November 2024

Associate Minister of Transport Executive Wing Parliament Buildings Wellington

Dear Minister

Annual Report 2023/2024

We present the Annual Report of the Transport Accident Investigation Commission for the 12 months ended 30 June 2024.

It has been prepared and is signed in accordance with the provisions of the Crown Entities Act 2004.

David Clarke

Chief Commissioner

Stephen Davies Howard

Deputy Chief Commissioner

Lew Heouh

Our vision

To mātou matawhānui

No repeat accidents – ever! Whakakore aituā tukurua!

Our mission Tā mātou koromakinga

Safer transport through investigation, learning and influence

Our values Ā mātou uara

Fairness
Impartiality
Independence
Competence
Integrity
Timeliness
Certainty

Our purpose

Tā tātou kaupapa

Ko te kaupapa a Te Kōmihana Tirotiro Aituā Waka, he whakatau me te āta tirotiro he aha te pūtake o ngā aituā waka me ngā hauata. Ā, me pēhea rā te karo i ērā, kia kore ai e tūpono anō ā muri ake

The purpose of the Transport Accident Investigation Commission is to determine the circumstances and causes of accidents and incidents with a view to avoiding similar occurrences in the future

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Chief Commissioner's overview Te tirohanga a te Kōmihana matua



Jane Meares

Chief Commissioner

The 2023/24 year has again been a busy one for the Commission as we continue to build knowledge from national and international sources about avoiding aviation, rail, and maritime accidents. Over the year, we dealt with 43 inquiries into domestic accidents and incidents, publishing 16 reports, and making 39 recommendations for improved transport safety.

Three of these recommendations were urgent. The Commission may make preliminary reports and recommendations if we consider it necessary for transport safety. In August 2023, we published one such report, which arose from a fatal accident in which a chartered vessel capsized in Goose Bay, Kaikōura in September 2022. We issued the report after finding that flaws in the vessel's fuel system played a part in reducing the survivability of the accident. The recommendations were to Maritime NZ about its survey system: to ensure the survey system monitors the maintenance of fuel systems; to alert surveyors to the importance of maintaining and checking fuel systems; and to alert industry stakeholders to the importance of full inspections.

We completed a significant piece of work in October 2023 when we published our report into inquiries into two fatal accidents during ship loading operations, one at Ports of Auckland and the other at Lyttelton Port. These accidents happened within a week of each other in April 2022. This was an unusual inquiry for the Commission. Ship loading operations are outside our mandate except where directed by the Minister of Transport (using powers under the Transport Accident Investigation Commission Act 1990), as happened in this case. The Commission's inquiries are thorough, examining all the factors that contribute to an accident not just the immediate cause. The inquiries into the Ports accidents identified safety issues for the whole stevedoring sector in three areas: regulatory activity, cohesion in the stevedoring sector, and individual employers' management of safety. We made five recommendations.

Our recommendations are not mandatory and so we rely on influencing others to take safety actions. One of the ways we do this is by publishing the *Watchlist*, a list of our most pressing safety concerns. Topics on the list arise from safety issues that are persistent or have recurred over time and/or across modes.

In March 2024, we published a revised *Watchlist 2024*. A new topic is *Safety for workers in the rail corridor*, reflecting our concern about the number of occurrences we see of workers potentially being put at risk. A previous topic not included in *Watchlist 2024* is *Navigation in pilotage waters*. We acknowledge the work done by Maritime NZ, NZ Maritime Pilots Association and Port & Harbour Marine Safety Code in response to previous recommendations we have made about this safety issue.

The year was also a busy one for us organisationally. In June 2024, we published a refreshed Statement of Intent (SOI) for the period 2024-2028. The new SOI continues our strategic direction – to be influential in transport safety by being credible, accessible, and ready to respond to a large-scale accident.

To help us achieve these strategic intentions, our organisational focus is embedding the work we have completed to date on the Knowledge Transfer System (KTS). The KTS is about ensuring we have the systems, people, and processes needed to respond to a more technologically advanced and data focused transport system. By June 2024, our case management system, a large part of the KTS, was fully in place, with the project team handing the project over to 'business as usual' in August 2024. The approach to implementation – a slow and supported transition to the new system – has paid off with high levels of engagement among investigators.

Investigation processes have also been strengthened with the inclusion of cultural competency procedures to guide investigators in operating effectively, respectfully and safely with tangata whenua. This is an important step in our cultural awareness programme, although we still have much to do to build awareness and understanding of tikanga Māori.

With the change in Government in October 2023, we put a hold on recruiting for several vacancies while we awaited fiscal decisions. Recruitment has since resumed, but we are mindful of the new Government's focus on delivering better public services while managing within tight fiscal constraints. We are committed to achieving value for money, clearly accounting for costs and performance, and continually improving performance.

The Commission's work is how New Zealand meets its international obligations to conduct impartial and independent transport investigations. The Commission and Commission staff have continued to build and develop relationships across the international community of accident investigation bodies. Strong relationships are vital should we need to call on our peers for assistance in responding to a major accident. They also allow us to share information about common issues and discuss possible solutions.

This year's Annual Report is my last as Chief Commissioner. I would like to thank my fellow Commissioners, the Chief Executive, and TAIC staff for their support over the nearly ten years of my time on the Commission. Their dedication and hard work has enabled TAIC to be in a strong position to continue contributing to improved transport safety for New Zealanders.

Jane Meares

Chief Commissioner

A note from Chief Commissioner David Clarke, October 2024

Chief Commissioner Jane Meares retired from her role in September 2024. Ms Meares has given the Commission long and valued service, first appointed Commissioner in February 2015 and then Chief Commissioner in November 2016. Ms Meares has made a significant contribution to the work of the Commission and the culture of the organisation. Over her tenure as Chief Commissioner, she guided deliberations with intellectual acuity, wisdom, and skill, commanding respect from Commissioners, managers, and staff.

Ms Meares indicated her intention to retire some time ago. This has allowed for the appointments of new Commissioners to be made in time to ensure continuity within the Commission and a smooth transition.

We thank her for her exceptional service to the Commission and to transport safety and wish her well in her retirement.

David Clarke

Chief Commissioner

Statement of responsibility Te tauākī kawenga

We are responsible for the preparation of the Transport Accident Investigation Commission's financial statements and statement of performance, and for the judgements made in them.

We are responsible for any end-of-year performance information provided by the Transport Accident Investigation Commission under section 19A of the Public Finance Act 1989.

We have the responsibility for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of financial reporting.

In our opinion, these financial statements and statement of performance fairly reflect the financial position and operations of the Transport Accident Investigation Commission for the year ended 30 June 2024.

David Clarke

Chief Commissioner

Stephen Davies Howard

Deputy Chief Commissioner

24 October 2024

What we do and why Ā mātou mahi me ngā take

Our organisation Tō mātou whakahaere

Our purpose

We help improve transport safety through safetyfocussed Investigations into accidents and incidents The Commission investigates certain accidents and incidents ('occurrences') in the transport sector with the purpose of helping to avoid something similar happening again.¹

Using a thorough and detailed inquiry process, we determine the circumstances and causes of the occurrences we investigate. The aim is to identify 'safety issues' – factors that either have contributed to an occurrence or are unsafe conditions. We also look across different investigations at whether there are common factors that might suggest system-wide safety issues.

Our work is about improving transport safety – it is not our purpose to ascribe blame.²

We are a commission of inquiry with strong powers to investigate The Transport Accident Investigation Commission Act 1990 (the Act) gives the Commission the powers to do this work. The Act sets up the Commission as a standing (permanent) commission of inquiry. Under the Act, the Commission investigates certain aviation, maritime and rail occurrences; and publishes reports to inform others in the transport system – domestically and internationally – about what happened and what might need to change to help avoid it happening again.

The Commission has strong investigation powers under the Act. These include the power of entry and inspection, and the power to seize, remove, and protect evidence. We also have wide powers under the Commissions of Inquiry Act 1908.

At times, coroners, the New Zealand Police, the transport sector regulators³ or WorkSafe New Zealand may also investigate the same transport occurrences as we do, although with different purposes.

¹ In this document, we use the term 'occurrence' to mean an accident or incident. 'Accident' and 'incident' are terms that are defined in legislation, but in general terms: an accident results in death or serious injury, significant damage, or environment impact; an incident is any other type of event that might affect the safe operation of an aeroplane, train, or ship.

² See Section 4 of the Transport Accident Investigation Commission Act 1990

³ Maritime NZ, the Civil Aviation Authority, and Waka Kotahi NZ Transport Agency

Our principles

Our work helps public trust and confidence in the transport system

Transport is a key part of New Zealanders' lives and plays an important role in the country's economy. Advances in technology and increasing transport options improve liveability and wellbeing – but only if we *are* safe and *feel* safe. The Commission's work helps avoid future occurrences and maintains people's trust and confidence in our transport system.

We are independent and impartial, meeting New Zealand's international obligations to conduct investigations guided by these principles

Accident investigations around the world are based on the principles of independence and impartiality. We make sure that evidence is protected and available for examination without any interference, interruption, or influence from anyone.

Countries around the world have committed to these principles by signing international transport conventions⁴ – agreeing to conduct independent and impartial investigations. New Zealand meets its obligations through the Act, which establishes the Commission as a commission of inquiry and expressly requires us to act independently.

People can speak to us freely because we are independent and the evidence we gather is protected The Act gives strong protection to evidence gathered during an investigation. We may not share evidence, and none of our published findings, recommendations, or reports can be used in legal proceedings. (The only exception is that the Coroner's court may use our written reports.)

The Commission's independence and protection of evidence means people can speak to us freely about what happened in an occurrence without fear of prosecution.

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⁴ Paragraph 5.4, Annex 13 to the Convention on International Civil Aviation; Chapter 16 International Maritime Organization Casualty Investigation Code

Our people

We are a small independent Crown entity, fully funded by the Crown

The Commission is a small independent Crown entity, fully funded by the Crown. Members of the Commission have two roles: as Commissioners (to determine the circumstances and causes of the occurrences we are investigating); and as the Board of the Transport Accident Investigation Commission (to meet the requirements of the Crown Entities Act 2004).

The Commission schedules two sitting days per month from February through to December each year. Usually at least 75 per cent of the Commission's time is devoted to hearing cases, with the remaining time for board matters. The Commission may also sit at other times or consider papers out of session, if required.

The Commission had five members on 30 June 2024

The Governor-General appoints the Commissioners. On 30 June 2024, they were:

- Ms Jane Meares Chief Commissioner (first appointed a Commissioner in February 2015, and Chief Commissioner in November 2016; retired in September 2024).
- Mr Stephen Davies Howard Deputy Chief Commissioner (first appointed a Commissioner in August 2015, and appointed Deputy Chief Commissioner in November 2018; term expires in June 2028).
- Ms Paula Rose QSO Commissioner (appointed in May 2017; term expires in June 2027).
- **Ms Bernadette R Arapere** Commissioner (appointed in December 2022; term expires in November 2025).
- **Mr David Clarke** Commissioner (appointed in December 2022; appointed Chief Commissioner in October 2024; term expires in November 2025).

A Chief Executive and a small number of staff support the Commissioners A small organisation supports the Commissioners, who employ a Chief Executive. On 30 June 2024, the organisation had an establishment of 38 staff covering:

- Chief Executive and Executive Services (4)
- Investigation Services (23 investigators, specialists, and support staff)
- Business Services (11 supporting professional roles including legal, finance, IT, communications, and others).

Because of our small size, we rely on external service providers in many areas of our operation. For example, we use a medical consultant and other subject matter experts to support investigations when required, and IT consultants and providers for some business services.

Our work Ā mātou mahi

Our procedures

The Commission's work follows established procedures

The general areas of the Commission's work are:

- activation (launching an inquiry after being notified of an occurrence)
- investigation
- inquiry
- communication of our findings.

Figure 1 below summarises these areas. The numbers to the right are for the 2023/24 financial year and indicate the scale of our work.

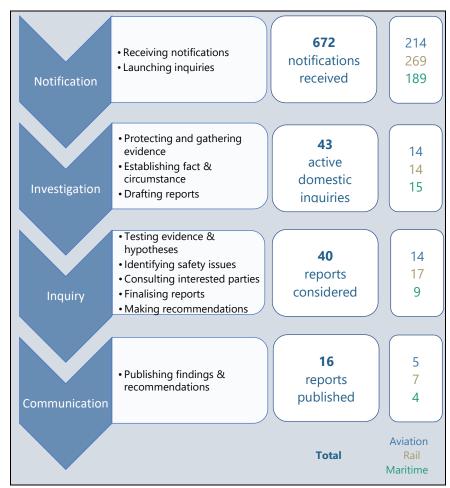


Figure 1: The Commission's work activation, investigation, inquiry, and communication

Over the year, we also assisted with eight investigations undertaken by eight of our overseas peer investigation bodies.

Notifications: activating an inquiry

Notifications come mainly from transport sector regulators

The Commission receives notifications of certain incidents and accidents in the aviation, rail, and maritime transport modes. Most notifications are from the transport sector regulators.

Each mode of transport has its own notification process, which is set out in its legislation. For example, under the Civil Aviation Act 1990 certain occurrences must be reported to the Civil Aviation Authority. The Authority notifies the Commission of any events that meet certain criteria, a comparatively small number. For example, the Civil Aviation Authority receives thousands of notifications each year and passes to us about 100; the Commission then launches an average of four to five aviation inquiries a year.

The Commission investigates if we think we can improve safety

The Commission investigates an occurrence if we believe it is likely to have significant implications for transport safety, or if we could make recommendations to improve transport safety.

Our decision to investigate or not depends on more than just the occurrence itself. We look at the safety risk it poses. Sometimes, even a minor incident would be considered a high risk if it might have led to an accident and the things that stopped it being more serious were limited in their effectiveness.

The Commission then considers a range of other factors in the decision whether to investigate, for example

- the known circumstances of the occurrence
- international obligations
- particular areas of concern to the Commission
- any other relevant factors.

The Minister of Transport may direct the Commission to open an inquiry under certain circumstances. In every case, we determine how we conduct the inquiry, and our deliberations are independent.

Investigations: establishing facts and circumstances

The Commission's investigators gather and analyse evidence

The Commission's investigators are delegated legal powers to protect and gather evidence. Many types of evidence may be collected depending on the direction an investigation takes. Evidence falls into four broad categories: people, machine, environment, and mission (purpose of the journey).

The analysis process involves sorting, verifying, and linking evidence and facts to prove, disprove and weigh competing theories. Figure 2 summarises the process.

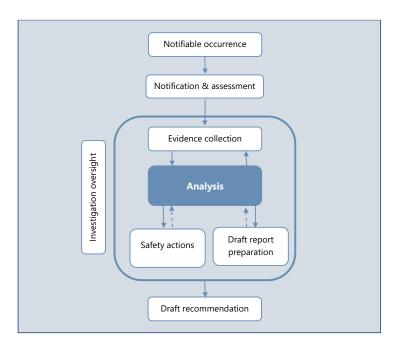


Figure 2: The analysis process

What has led to an occurrence might seem clear, but there is rarely just one cause. Often many factors have contributed – possible examples are training practices or wider systemic issues such as rules and regulations that are not working as intended.

Inquiries: testing evidence and identifying safety issues

The inquiry process has three stages: considering draft reports, considering submissions, and making recommendations

The Commission holds regular hearings to oversee and conduct inquiries and to consider the evidence placed before them by the investigation team.

Over time the emphasis moves from the investigation team's gathering and analysing of evidence to the Commission's testing of hypotheses and safety issues. The inquiry process has three stages:

- Testing the analysis of evidence and the draft report and identifying safety issues – Commissioners rigorously test hypotheses and supporting evidence, and direct further investigation if necessary.
- Considering draft final reports along with written or oral submissions from the interested parties.
- Making recommendations where the Commission considers action is needed to help avoid another similar occurrence, we make a recommendation to the relevant body. The Commission may issue urgent recommendations while an inquiry is in progress if we identify a safety issue that requires immediate action.

Administrative law requirements of natural justice apply to the Commission and its processes Administrative law requirements of natural justice apply to the Commission and its processes. Sometimes draft reports state or imply that the conduct of someone has contributed to the occurrence or makes adverse comment about someone.

In these cases, the Commission must⁶ give interested parties⁷ fair opportunity to comment on, or refute, those findings. The Commission must consider any comments with an open mind before finalising and publishing the final report.

⁵ Inquiries Act 2013, s 14; NZBORA, s 25; Cabinet Manual (2008) para 4.73

⁶ Transport Accident Investigation Commission Act 1990, Part 2, s14 (5)

⁷ 'Interested parties' are persons likely to be affected by the report's findings and include the operator, manufacturer of the vehicle or vessel, engine manufacturer, involved state agencies and representatives of injured persons (Transport Accident Investigation Commission Act 1990, Part 2, s9)

The Commission and the investigation team meet at set points during the inquiry process The Commission and the investigation team meet at set points in the inquiry process, as shown in Figure 3.

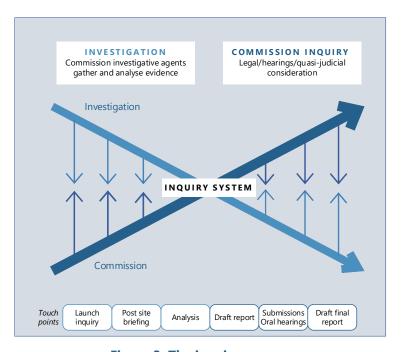


Figure 3: The inquiry process

Complex inquiries can result in a longer inquiry process

If an inquiry is technically complex, the process may take longer than other inquiries. The Commission may call for further expert advice, receive additional submissions from interested parties, or extend lines of inquiry given the nature of the submissions received.

The Commission must carefully consider all the evidence presented and must be fair to all interested parties.

Knowledge transfer: communicating core inquiry information

A written report details the outcome of the inquiry and contains findings and, when necessary, recommendations to remedy safety issues The inquiry process culminates in a written report. The report details what happened and sets out how we analysed the evidence. It contains core messages about what we learnt, and what action has been taken or is still needed to avoid a similar event happening again. These core messages are in the form of findings and recommendations.

- Findings are the Commission's conclusions after examining the facts.
- Recommendations are a call to remedy an identified safety issue.⁸

The Commission makes a recommendation only if a safety issue remains unresolved at the end of an inquiry. Our recommendations are not mandatory, so we rely on others to act where needed. Often (and ideally), action is taken during the investigation. In this way, 'knowledge transfer' – passing the information we gain from our work to others so they can make safety improvements – happens throughout the inquiry process, not only when the final report is published.

Interim reports and the Watchlist are other communication methods The Commission may release an interim report to communicate important factual findings or completed lines of inquiry where the ongoing investigation is likely to be complex and lengthy.

The Commission may also communicate urgent safety issues to transport regulators through making preliminary reports and recommendations.

The Watchlist communicates the Commission's most pressing safety concerns – *see* page 21 for more information.

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⁸ See Annex 13, Convention on International Civil Aviation Aircraft Accident and Incident Investigation, (10th Ed.), p. 1-2

The Commission is mindful of its communications with survivors, whānau and tangata whenua of the location of the accident

The Commission's 'Families Programme' keeps survivors and whānau appropriately informed about the progress of an inquiry. However, our legislation stops us from sharing the details about our investigation except through our published report. This is to encourage those with pertinent safety information to speak to us so similar occurrences can be avoided and is consistent with international conventions.

For those wanting to know what happened to their loved ones, the legal restrictions on what we can say is understandably frustrating. From the beginning of an inquiry, we try to communicate clearly with families about what we can say and why.

Over 2023/24, we reviewed the Families Programme. The purpose of the review was to introduce concepts of whānau and tangata whenua – the group, iwi or hapū that hold mana whenua over the area of an occurrence. This aligns with the new *Cultural Competency for Investigations Procedures* (see 'Strategic intention to be credible' on page 53).

The updated programme, renamed *Manaaki Tangata Procedures*, was introduced in early 2024/25.

International engagement

The Commission is part of a global network of transport accident investigation bodies The Commission is part of a global network of transport accident investigation bodies meeting their States' obligations under international Conventions (see footnote 4 on page 8).

Under these Conventions, the Commission participates in inquiries by international peer organisations into events in overseas jurisdictions. This occurs when occurrences involve New Zealand registered or manufactured aircraft, vehicles or components, or New Zealanders have died as the result of an accident. Assistance usually takes the form of gathering evidence in New Zealand and co-ordinating information flows, but we can also have more indepth involvement.

The section beginning on page 41 has details about the international inquiries we assisted over 2023/24.

International assistance is focused on the Pacific region

Under Annex 13 to the International Civil Aviation (ICAO Convention), the Commission fulfils the New Zealand Government's obligations by assisting another signatory State in investigating an occurrence if that other signatory does not have the expertise or resources.

We may also assist outside our international treaty obligations. This work is usually in the Pacific region. Examples include seconding investigators to Pacific Governments to undertake transport safety investigations; and providing training support to peer agencies (directly or under the auspices of organisations such the International Maritime Organization).

International engagement is vital for building resilience in the face of a large-scale accident Engagement with our international peers enables inter-agency collaboration and helps build resilience against the significant pressures we would face should a large-scale accident happen in New Zealand. In such a situation, the Commission would have to draw on the assistance of international colleagues. Inter-operability with other nations would be critical to a rapid and effective response.

Over the year, the Commission and staff continued participation in international forums such as the International Transportation Safety Association, the International Society of Air Safety Investigators, the Marine Accident Investigators International Forum, and the International Maritime Organization.

International engagement is online where practicable and appropriate. This option is now more common and is a cost-effective way of maintaining international connections.

What we did in 2023/24

Ā mātou mahi i 2023/24

Our impact Ā mātou pānga

Contributing to safety outcomes through influence

We contribute to the transport sector outcome of protecting people from transport-related injuries

The Commission works for systemic improvements in transport safety where users *are* safe and *feel* safe. Our work, therefore, directly supports the 'healthy and safe people' strand of the Transport Outcomes Framework developed by the Ministry of Transport. This outcome is about protecting people from transport-related injuries.

Our contribution is made through knowledge transfer, a continuous process We contribute to a safer transport system by transferring the knowledge we gain from our work to others in the transport sector. Knowledge transfer can happen at any time in the investigation and inquiry process. Often, action to remedy an identified safety issue is taken as part of the investigation process. But sometimes safety issues remain unresolved at the end of an inquiry. In this case, the Commission makes a recommendation.

Our recommendations are not mandatory so to be effective we must influence others to act to improve safety

Recommendations are signals about unresolved systemic safety issues that could contribute to future occurrences. We tend to make recommendations to regulators and policy makers more than operators because they are better able to influence and act on the highly complex system that is the transport sector.

Our recommendations are not mandatory, so to be effective we must be able to influence others to act to improve safety. And to be influential, we must be credible; and we must make our findings known and accessible to those who can use the knowledge that we generate about transport safety to resolve the systemic safety issues we identify.

Depending on the recommendation, our influence may be apparent within a relatively short period. Sometimes our recommendations can take much longer, even years, to implement, or can continue to have influence well after they were first issued.

The Commission works with regulators on reporting progress in implementing recommendations. An annual report on the status of recommendations is published on the Commission's website.⁹

The Watchlist communicates the Commission's most pressing safety concerns...

The Watchlist is another way we influence the transport sector to act. It communicates the Commission's greatest safety concerns. Watchlist topics arise from safety issues that are persistent or have recurred over time and/or across modes.¹⁰

...over 2023/24 safety for workers in the rail corridor was included on the Watchlist We review the Watchlist at least once every two years. We published a *Watchlist 2024* in March 2024. One new topic appearing on the list was *Safety for workers in the rail corridor*. We are concerned about the number of occurrences we see of workers potentially being put at risk. From our inquiries, we have identified several safety issues: procedures that did not meet the national standards, procedures not being adhered to, miscommunication, and impairment from fatigue. The consequences of these safety issues can be severe.

A topic that appeared on the Watchlist in 2022 but does not appear on *Watchlist 2024* is *Navigation in pilotage waters*. We acknowledge the work done by Maritime NZ, NZ Maritime Pilots Association and Port & Harbour Marine Safety Code, which means that navigation in pilotage waters is no longer a matter at the highest level of concern.

Risk always exists in the transport system and the Commission continues to track developments related to Watchlist items and other safety issues across a range of themes. This includes previous Watchlist items, which remain of interest. Our tracking includes environmental scanning, new inquiry findings, information about responses to recommendations, and numbers of notifications we receive of related occurrences.

⁹ Recommendations monitoring reports | TAIC

¹⁰ The Watchlist can be found here on our website: Action is needed on these pressing safety concerns | TAIC

Influence and knowledge transfer: key achievements 2023/24

We made urgent recommendations as part of our inquiry into a tragic maritime accident in which five people died

In September 2022, the Commission opened an inquiry into the capsize of a chartered vessel in Goose Bay, Kaikōura. Six people were rescued from the water, but five people died. The bodies of the five deceased passengers were found in an air pocket of the upturned vessel.

In August 2023, we published a preliminary report under section 9 of the Transport Accident Investigation Commission Act 1990. Section 9 allows us to make preliminary reports and recommendations to transport regulators as may be necessary for transport safety.

We issued the report after finding that flaws in the vessel's fuel system almost certainly allowed fuel to leak into the air pocket and very likely reduced the survivability of the accident.

We made three urgent recommendations to Maritime NZ about its survey system: to ensure the survey system monitors the maintenance of fuel systems; to alert surveyors to the importance of maintain and checking fuel systems; and to alert industry stakeholders to the importance of full inspections.

We published a report into our inquiries into fatalities during port operations

In October 2023, we published a report of our inquiries into two fatal accidents during port operations. One accident was at Ports of Auckland on 19 April 2022. A stevedore reportedly fell from height during loading operations for a container ship. The other accident was at Lyttelton Port on 25 April and occurred during loading operations aboard a vessel while it was berthed.

The Minister of Transport at the time directed TAIC to investigate the circumstances and causes of the two accidents and determine any potential system-wide lessons. Without the Minister's direction, these accidents would have been outside our mandate. Such direction is rare.

The Commission identified broad safety issues for the whole stevedoring sector in three areas: regulatory activity, cohesion in the stevedoring sector, and individual employers' management of safety. We made five recommendations (see the section on Maritime activity for 2023/24, page 38).

How effective are we? Case studies

We demonstrate effectiveness through case studies

The Commission's mission is safer transport through investigation, learning and influence. Given the complexities of the transport system, and the non-mandatory nature of our recommendations, we demonstrate our influence on safety outcomes mainly through case studies rather than quantitative assessment.

The case studies on the following pages show how the Commission's work in identifying safety issues, together with a responsive sector, can achieve a safer transport system.

Note: The case studies contain short summaries of inquiries; the full reports are the official record of the Commission's findings and recommendations.

Case study: Improved search and rescue facilities for the far north

Maritime inquiry

MO-2022-201: Charter fishing vessel *Enchanter*, capsize, North Cape, New Zealand, 20 March 2022

What happened

The charter fishing vessel *Enchanter* was on a five-day fishing trip. On the day of the accident, it was heading from the Three Kings Islands towards Murimotu Island off North Cape, where the skipper intended to anchor for the night.

When the vessel was broadly east of Murimotu Island, it was struck by a large steep wave and capsized.

The Rescue Coordination Centre New Zealand (the RCCNZ), alerted by the crew's Emergency Position-Indicating Radio Beacon (EPIRB), initiated a search and rescue response.

Only five of the ten people survived the accident. Survivors were retrieved from the upturned hull and other floating debris by the first rescue helicopter to arrive at the scene.

The safety issue

The Commission made extensive findings and recommendations as a result of our inquiry into this accident.¹¹ One of these findings was that the there was a period of four hours and 36 minutes when the lack of available fuel prevented helicopters searching for the remaining five people in the water, which was attributable in part to fuel supply being based on air ambulance services and not on extended search and rescue (SAR) operations in remote areas.

The safety issue we identified is that the national availability of fuel for helicopters likely to be engaged in extended SAR operations in remote areas is not well documented and understood by SAR coordinating authorities.

What we said

We recommended that Maritime NZ work with SAR coordinators and providers of SAR air assets across New Zealand to identify opportunities for the supply and, if necessary, the storage of fuel for extended SAR operations in remote areas, and maintain a database of identified stored fuel and fuel supply logistics.

What changed

Our report was published in August 2023, influencing improvements to refuelling facilities in the far north. In October 2023, the then Government approved funds for urgent maintenance and upgrade work at Kaitāia Airport. As part of the extensive upgrade, aircraft refuelling facilities are to be reinstalled.

This action reduces the risk of delays to search and rescue operations in the area around Northland.

¹¹ See the section on 2023/24 activity in the maritime sector, page 58

Case study: Supporting the safety of rail workers

Rail inquiry

RO-2023-101: Hi-Rail vehicle collision near Te Puna, 86.43 km East Coast Main Trunk line, 10 January 2023

What happened

On 10 January 2023, a Hi-Rail Vehicle (HRV, a vehicle that can travel on road and rail) entered the rail track at a level crossing near Te Puna, west of Tauranga. The HRV travelled towards a planned worksite for an infrastructure team to carry out maintenance work. The vehicle was being driven by the infrastructure team's supervisor and was carrying one passenger, a track worker.

A second HRV, driven by another track worker, entered the track at the same place two minutes later and travelled in the same direction.

The first vehicle stopped on a curve, so the supervisor could mark a section of track that indicated the start of the worksite. To carry out the task, the supervisor and the track worker left the vehicle and walked to the track in front of it.

The driver of the second vehicle did not realise the first vehicle had stopped. On seeing it as they rounded the curve, they had to brake heavily. However, the two vehicles collided, just as the track worker from the first HRV was climbing back into the cab.

The worker was thrown onto the stone ballast at the side of the track, and suffered bruising and lacerations.

The safety issues

The Commission identified safety issues related to:

- the training of staff in cases where they need to travel longer distances to work areas
- the importance of treating HRV cabs as safety-critical areas
- support for staff who have multiple roles.

What we said

The Commission made two recommendations, both to KiwiRail to:

- improve training to enable track workers to operate an HRV safely
- provide supervisors with the resources that would enable them to supervise and train track workers effectively and safely while also completing their own work task.

What changed

KiwiRail has stated that it is engaging with its Learning and Development team regarding course content for HRV operators, with a focus on the safety critical environment of the HRV cab when ontrack and understanding of risks (safe travel distance/speed/emergency braking/radio calling) when travelling to a worksite. It is also working to determine how best to manage the ratio of trainee workers to supervisors.

The Commission considers these actions will help keep rail workers safe from harm

Case study: International consideration of Commission findings

Maritime inquiries

MO-2014-202: Lifting sling failure on freefall lifeboat, general cargo ship *Da Dan Xia*, Wellington, 14 April 2014

MO-2017-203: Burst nitrogen cylinder causing fatality, passenger cruise ship *Emerald Princess*, 9 February 2017

What happened

Both the accidents in this case study involved the failure of equipment used in fleets across the world and had international implications.

- In the 2014 accident, a lifeboat was being retrieved onto a vessel berthed
 in Wellington. It was being hoisted by four wire rope pennants when one
 of the wire pennants parted, followed by the other three. The lifeboat fell
 several metres back into the sea causing a crew member to be
 hospitalised.
- The February 2017 accident occurred on board a passenger cruise ship while it was berthed at Port Chalmers, Dunedin. A high-pressure nitrogengas cylinder burst, killing a crew member.

The safety issue

The Commission found that:

- the wire pennants parted under tensile overload because they had been significantly weakened by corrosion. The corrosion had gone undetected inside a plastic sheathing around the wire pennants.
- the nitrogen cylinder burst at below its normal working pressure because
 of severe external corrosion. The failed cylinder and several others were
 not fit for purpose despite having been recently surveyed. The
 Commission found an urgent need for consistent and proper international
 standards for maintaining, inspecting, testing and, where necessary,
 replacing high-pressure cylinders on ships.

What we said

In both cases, the Commission recommended that the Director of Maritime NZ submit the matter to the International Maritime Organization (IMO).¹² Maritime NZ accepted the recommendations.

What changed

No immediate action was taken in the case of wire pennants. However, at an IMO meeting in July 2023, China submitted a paper to again raise the safety issue. The paper referred to the Commission's inquiry and used our findings to support a recommendation to revise international standards.

The recommendation regarding high-pressure cylinders is being progressed.¹³ In the meantime, our report and findings have been used in an IMO-World Maritime University study.¹⁴ The aim was to contribute to the development of more effective safety regulations by identifying trends and patterns in a sample of passenger ship accidents.

¹² MO-2014-202 recommendation 002/15; and MO-2017-203 recommendation 030/018

¹³ For more information, see *Status update on TAIC safety recommendations for the period to 30 June 2023*, p.21 Recommendations Reporting | TAIC

¹⁴ World Maritime University (2023). A Pilot Study of Passenger Ship Casualties. Annex to IMO paper III 9/INF.33, 14 June 2023

How effective are we? Other measures

Results from our stakeholder survey also indicate levels of influence

The case studies are the main way we demonstrate effectiveness because they most clearly illustrate how the Commission's work brings about change in transport safety. They can be viewed as indepth examples of our influence.

This year, we begin reporting responses from our stakeholder survey to questions related to influence. These provide a higher-level, broader view of our impact. An independent research company conducts the survey every two years. In its current form, it began in 2022 and was repeated in early 2024.

The results of the survey should be read as indicative only and considered alongside other performance information. We noted in our *Statement of Performance Expectations 2023/24* that reporting the results in a way that faithfully represents performance is problematic. The small sample sizes (50 for 2023/24) do not allow for statistically meaningful comparisons from one set of results to another.¹⁵ Therefore, we do not set a numerical target to measure performance; instead, we plan to report the trend of responses over time as an indicator.

Figure 4 shows the results of the two stakeholder surveys in 2022 and 2024.

Although still too early to conclude a trend, the data shows that, in both surveys, most respondents considered their organisations paid attention to TAIC's findings and recommendations and used them for transport safety related decision-making.

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¹⁵ The number of stakeholders that we can approach for feedback on our performance is relatively small – we do not offer public services in the same way that many other government organisations do. The sample for any stakeholder survey is therefore always too small to draw inferences that are statistically meaningful.

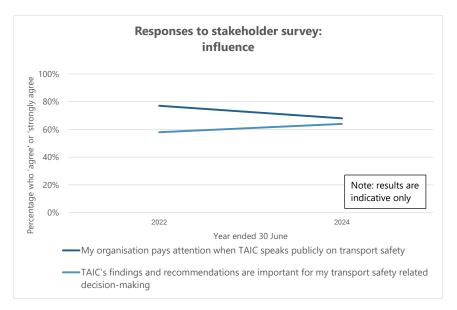


Figure 4: Responses to stakeholder survey

From time-to-time we receive additional feedback that show transport sector participants use the knowledge our inquiries generate

In addition to the stakeholder survey, from time-to-time we receive unsolicited feedback about how transport sector participants use our inquiry reports. Over 2023/24 for example:

- a maritime training organisation commented on social media that they use our reports in their classes, noting our "impartial investigations that result in saving lives".
- the head of an aviation industry group also gave verbal feedback on our reports, saying they were closely read for safety lessons.

Internationally, we continue to influence transport safety

The third case study above shows the Commission continues to have influence at international forums. We can influence in less formal ways also – for example the March 2024 edition of *Rotor Magazine* included an extensive article detailing our report into a helicopter crash in the Auckland Islands in 2019.¹⁶ The magazine, published for Vertical Aviation International, has a circulation of readers in over 160 countries.

¹⁶ AO-2019-005: BK117-C1, ZK-IMX Controlled Flight into Terrain (Water), Auckland Islands, 22 April 2019

Activity by mode Te mahi ā-momo tūānuku

Aviation

We published 5 aviation reports

Table 1 lists the five aviation inquiry reports published in 2023/24. Reports for all inquiries can be found here on our website: Investigations | TAIC

Table 1: Aviation inquiry reports published over 2023/24

| Inquiry | Published | Working days to publication* |
|---|------------|------------------------------------|
| AO-2020-002: Glider, Schleicher ASK21, ZK-GTG, Impact with Terrain, Mount Tauhara, Taupō, 31 May 2020 | 9/11/2023 | 758 |
| AO-2021-003: Airbus Helicopters AS350 B3e, ZK-ITD, loss of control in flight, Lammerlaw Range, 40 km northwest of Dunedin Aerodrome, 16 September 2021 | 17/11/2023 | 477 |
| AO-2022-002: Robinson R22, ZK-HEQ, loss of control in flight, Karamea, West Coast, 2 January 2022 | 7/12/2023 | 424 |
| AO-2018-009: MD Helicopters 500D, ZK-HOJ, In-flight breakup, Near Wānaka Aerodrome, 18 October 2018 | 13/06/2024 | 1,245 |
| AO-2023-001: Airbus Helicopters AS350B2 (ZK IDB) and EC130B4 (ZK IUP), Reported close air proximity, Queenstown Aerodrome, 27 December 2022 | 27/06/2024 | 318 |

^{*220} working days = 1 year

The 5 aviation reports contained 7 recommendations

The five aviation reports contained seven recommendations. Inquiries into two fatal helicopter crashes resulted in two recommendations to the Civil Aviation Authority (CAA) to, in consultation with stakeholders: clarify night Visual Flight Rules and guidance; and clarify instrument currency requirements for flying under night Visual Flight Rules. (Inquiry AO-2021-003.) From the other inquiry (AO-2022-002), we recommended that the CAA review the suitability of hook and loop retaining straps for securing emergency locator transmitters to airframes.

We made two recommendations from the inquiry into a helicopter crash in Wānaka in 2018 in which three people died (AO-2018-009). One to the CAA was to clarify the requirement for promptly reporting a door opening in flight; and the other to the CAA and the Ministry of Transport to clarify the definition of 'crew members' in commercial transport operations.

Two recommendations, one to Gliding New Zealand and one to a gliding club, arose from a glider accident in which two people died (AO-202-002). The recommendations were about improving training for instructors and pilots.

At year end, 9 aviation inquiries were in progress

Table 2 lists the nine aviation inquiries in progress on 30 June 2024.

Table 2: Aviation inquiries in progress on 30 June 2024

| Inquiry | Launched | Age on 30 June 2024 (working days*) |
|--|------------|--|
| AO-2022-005: Boeing 737, ZK-TLL, Incorrect configuration (fuel management), Auckland, 8 June 2022 | 16/06/2022 | 449 |
| AO-2023-003: Boeing 777, runway excursion, Auckland International Airport, 27 January 2023 | 27/01/2023 | 313 |
| AO-2023-007: Bombardier DHC-8, ZK-NEM, descended below minimum safe altitude, Timaru, 13 June 2023 | 16/06/2023 | 229 |
| AO-2023-008: Close proximity incident involving Q300, ZK-NES and Beech 76 Duchess, ZK-JED, near Brynderwyn, 28 August 2023 | 30/08/2023 | 184 |
| AO-2023-010: Mt Pirongia, BK-117 Collision with terrain, 19 September 2023 | 20/09/2023 | 171 |
| AO-2023-011: Close proximity incident, Beechcraft BE76 and Cessna C172, Ardmore, Auckland, 3 October 2023 | 6/10/2023 | 162 |
| AO-2024-001: Q300, ZK-NEF, rejected take-off at speed, Timaru, 7 February 2024 | 7/02/2024 | 87 |
| AO-2024-003: Airbus A320 and drone, close proximity incident over South Auckland, 2 April 2024 | 4/04/2024 | 52 |
| AO-2024-004: Airbus A320, VH-VFF, runway excursion, Christchurch Airport, 31 May 2024 | 31/05/2024 | 19 |

^{*220} working days = 1 year

The number of close proximity events in our casebook reflects a maturing risk-based approach to setting the criteria for launching inquiries

The number of close proximity events in our casebook reflects a maturing risk-based approach to setting the criteria for launching inquiries. Over 2022/23 we implemented the Event Risk Classification model. Based on a model used by the Australian Transport Safety Bureau (ATSB), it provides a systematic method for assessing the risk associated with the events we are notified about. The information contributes to the decision to launch an inquiry.

In June 2024, we published our report into one of these close proximity events in Queenstown in late 2022 (AO-2023-001). The Commission identified a safety issue related to the layout of part Queenstown Aerodrome, but made no recommendations because safety actions were taken during the inquiry.

Rail

We published 7 rail reports

Table 3 lists the seven rail inquiry reports published in 2023/24. Reports for all inquiries can be found here on our website: Investigations | TAIC

Table 3: Rail inquiry reports published over 2023/24

| Inquiry | Published | Working days to publication* |
|--|------------|------------------------------------|
| RO-2022-103: KiwiRail W6 shunt and Metro (Go Bus) Route 60 bus, near miss at Selwyn Street level crossing, 8 August 2022 | 19/10/2023 | 261 |
| RO-2022-101: Passenger train, Fire in auxiliary generator wagon, Palmerston North, 11 May 2022 | 23/11/2023 | 338 |
| RO-2022-102: L71 Mainline Shunt, derailment and subsequent rollover, Tamaki, 1 June 2022 | 14/12/2023 | 338 |
| RO-2022-104: L1 shunt train and heavy goods vehicle, Level crossing collision and derailment, Whangārei, 7 December 2022 | 21/03/2024 | 282 |
| RO-2023-103: Safe-working irregularity, 3.85 km mark, Johnsonville line – tunnel 5, 04 May 2023 | 21/03/2024 | 191 |
| RO-2023-101: Hi-Rail vehicle collision near Te Puna, 86.43 km East Coast Main Trunk line, 10 January 2023 | 18/04/2024 | 280 |
| RO-2023-102: Freight train 360 Derailment, Te Puke, 29 January 2023 | 20/06/2024 | 306 |

^{*220} working days = 1 year

The 7 rail reports contained 15 recommendations about...

Six of the inquiries resulted in a total of 15 recommendations, 14 of them to KiwiRail. Recommendations arose from inquiries into the following types of occurrences.

...near misses and collisions...

One of the rail inquiries was into a near-miss between a passenger bus and a locomotive at a level crossing in August 2022 (RO-2022-103). The incident occurred after protections at the level crossing had been disabled while a fault was traced. We made two recommendations to KiwiRail about the risks posed by disabling protections, whether planned or unplanned.

In December 2022, another collision occurred at a level crossing (RO-2022-104). The collision was between a shunt train and a heavy goods vehicle, which caused a derailment. We made two recommendations to KiwiRail about managing the risks for users of level crossings and for rail and road workers around level crossings.

Two recommendations to KiwiRail arose from another collision, this time between two Hi-Rail Vehicles (RO-2023-101). The recommendations related to improving training of track workers and support for supervisors to ensure Hi-Rail Vehicles are operating safely.

...derailments...

One inquiry (RO-2022-102) resulted in three recommendations to KiwiRail about training, including non-technical skills. A further recommendation was to enhance engineering risk controls in the complex work environment of the Auckland metropolitan rail network. A fifth recommendation, to KiwiRail and NZ Transport Agency Waka Kotahi, was to review the operation of long-hood leading locomotives (where the cab of the locomotive is at the rear of the train and the operator's view is restricted).

The other derailment that we investigated resulted from heavy rainfall washing away the supporting formation of the rail track (RO-2023-102). We made three recommendations to KiwiRail to review its systems and processes for responding to adverse weather, training for personnel about reporting unusual weather conditions, and ensuring waterways within the rail corridor are well maintained.

...and fire

One recommendation to KiwiRail was to install smoke and fire detectors in auxiliary generator wagons, following a fire in one of its wagons (RO-2022-101).

At year end, 7 rail inquiries were in progress

The seven rail inquiries in progress on 30 June 2024 are listed in Table 4.

Table 4: Rail inquiries in progress on 30 June 2024

| Inquiry | Launched | Age on 30 June 2024 (working days*) |
|---|------------|--|
| RO-2021-104: Passenger train, derailment, Waikanae to Wellington, Kapiti line, 17 August 2021 | 17/08/2021 | 632 |
| RO-2023-104: Two passenger trains, SPAD and potential conflict, Penrose, Auckland, 17 June 2023 | 21/06/2023 | 226 |
| RO-2023-105: Tamper machine derailment, Purewa Tunnel, Auckland, 9 October 2023 | 9/10/2023 | 160 |
| RO-2023-106: TranzAlpine passenger service, train parting, Midland Line, near Arthur's Pass, 17 December 2023 | 18/12/2023 | 118 |
| RO-2024-101: Freight train, signal passed at danger, Cora Lynn, 27 February 2024 | 4/03/2024 | 71 |
| RO-2024-102: Safe working incident, Main South Line near Hornby, 7 March 2024 | 11/03/2024 | 67 |
| RO-2024-103: Rail Bridge 57, damaged in flood waters, Rangitata River, near Ealing, 12 April 2024 | 16/04/2024 | 45 |

^{*220} working days = 1 year

Resilient infrastructure continues to be a concern...

We noted in last year's report that safety transport relies on resilient infrastructure and referred to three of our inquiries into occurrences that resulted from bad weather. Two of these are now published.¹⁷ One continued over 2023/24 (RO-2021-104) and we opened another (RO-2024-103) after a pier supporting a span of a rail bridge was washed away by flood waters.

¹⁷ RO-2021-106: Derailment of Train 220, South of Hunterville,13 December 2021; and RO-2023-102: Freight train 360 Derailment, Te Puke, 29 January 2023

...as does the safety of workers in the rail corridor

In April 2024, we opened an inquiry into an incident in which a trainee rail protection officer reportedly gave permission for contractors to enter the rail corridor worksite before a train, which had authorisation to pass through, had cleared the worksite (RO-2024-102). The Commission is closely tracking the incidents where workers in the rail corridor are potentially placed at risk. This is an issue that we placed on our *Watchlist* for the first time in 2024.

Maritime

We published 5 maritime reports

The five maritime inquiries completed in 2024/24 are listed in Table 5. Three inquiry reports were published for these inquiries: two (MO-2022-203 and MO-2022-203) were combined into a single report; and one (MO-2024-202) was closed by resolution with no report published.

Reports can be found here on our website: Investigations | TAIC

Table 5: Maritime inquiry reports published over 2023/24

| Inquiry | Published | Working days to publication* |
|--|------------|------------------------------------|
| MO-2022-201: Charter fishing vessel <i>Enchanter</i> , Capsize, North Cape, New Zealand, 20 March 2022 | 11/08/2023 | 306 |
| MO-2022-207: Fishing vessel <i>Boy Roel</i> , serious workplace injury, Off Tauranga, Bay of Plenty, New Zealand, 12 December 2022 | 21/09/2023 | 171 |
| MO-2022-202: Bulk carrier, <i>ETG Aquarius</i> , Stevedore fatality during coal loading operations, Lyttelton Port, 25 April 2022 | | |
| MO-2022-203: Container vessel, <i>Capitaine Tasman</i> , Stevedore fatality during container loading operations, Port of Auckland, 19 April 2022 | 20/10/2023 | 326 |
| MO-2024-202: FV Pacific Challenger, crewmember missing, off Waimarama coast, 1 April 2024** | 30/05/2024 | 34 |

^{*220} working days = 1 year

A preliminary report contained 3 urgent recommendations

As well the final reports in the table above, we published a preliminary report for the inquiry opened in August 2023 (MO-2022-206). The accident involved the capsize of a chartered vessel in Goose Bay, Kaikōura. Six people were rescued from the water but, tragically, five people died. The bodies of the five deceased passengers were found in an air pocket of the upturned vessel.

We issued the report after finding that flaws in the vessel's fuel system almost certainly allowed fuel to leak into the air pocket and very likely reduced the survivability of the accident. Maritime Rules allow surveyors discretion regarding the extent of their surveys,

^{**}This inquiry was closed by resolution with no report published.

and do not require an inspection of a vessel's complete fuel system. We were unable to get assurance from surveys about the condition of fuel systems for other vessels in New Zealand's domestic fleet.

We made three urgent recommendations to Maritime NZ about the survey system:

- to ensure the survey system monitors the maintenance of fuel systems
- to alert surveyors to the importance of maintain and checking fuel systems
- to alert industry stakeholders to the importance of full inspections.

The three final maritime reports contained 14 recommendations about search and rescue...

Two of the three final inquiry reports contained 14 recommendations.

Nine of the 14 recommendations were from another fatal capsize, also resulting in the death of five people (MO-2022-201), this time of a chartered fishing vessel.

- We made five recommendations to the Secretary of Transport about strengthening search and rescue SAR capability, including, for example management of assets and training of crew. The recommendations require work across government agencies, SAR co-ordinators and providers of SAR assets.
- Four recommendations were made to Maritime NZ: three about oversight of maritime surveyors; and the fourth was to introduce the requirement for commercial vessels to be fitted with automatic identification system (AIS) or equivalent when carrying passengers outside inshore limits.

...and port operations

In October 2023, we published a report of our inquiries into two fatal accidents during port operations (MO-2022-203 and MO-2022-202).

The Minister of Transport at the time of the accidents directed TAIC to investigate the circumstances and causes of the two accidents and determine any potential system-wide lessons. Without the Minister's direction, these accidents would have been outside our mandate.

The Commission identified broad safety issues for the whole stevedoring sector in three areas: regulatory activity, cohesion in the stevedoring sector, and individual employers' management of safety. The report contained five recommendations addressed to Maritime NZ, Maritime NZ and Worksafe, a stevedoring company, and one of the port companies involved.

One maritime inquiry was closed by resolution with no recommendations made

In April 2024, we launched an inquiry into a person overboard on a commercial fishing vessel (MO-2024-202). We launch an inquiry whenever we consider we can learn significant lessons for transport safety. On further investigation, we concluded there was nothing in the circumstances of this accident that had implications for the broader transport system. The Commission closed the inquiry by resolution in May 2024 and did not publish a report.

At year end, 10 maritime inquiries were in progress

Table 6 lists the ten maritime inquiries in progress on 30 June 2024.

Table 6: Maritime inquiries in progress on 30 June 2024

| Inquiry | Launched | Age on 30 June 2024 (working days*) |
|---|------------|--|
| MO-2022-206: Charter fishing vessel <i>i-Catcher</i> , Capsize, Goose Bay, Kaikōura, New Zealand, 10 September 2022 | 10/09/2022 | 397 |
| MO-2023-201: Passenger vessel <i>Kaitaki</i> , Loss of power, Cook Strait, 28 January 2023 | 28/01/2023 | 313 |
| MO-2023-202: Collision between Passenger Ferry Waitere and a recreational vessel near Paihia, Bay of Islands, 13 April 2023 | 13/04/2023 | 268 |
| MO-2023-203: MV Shiling, loss of propulsion and steering, Wellington Harbour, 15 April 2023 | 16/05/2023 | 248 |
| MO-2023-204: Serious injury during crane operations, <i>Poavosa Brave</i> , Tauranga, 23 June 2023 | 24/06/2023 | 224 |
| MO-2023-205: Bulk Carrier <i>Achilles Bulker</i> , loss of rudder, near Tauranga Port, 24 July 2023 | 26/07/2023 | 205 |
| MO-2023-206: Fishing vessel <i>Austro Carina</i> , grounding, Banks Peninsula, 24 September 2023 | 25/09/2023 | 168 |
| MO-2024-201: Fiordland Navigator, stranding, Doubtful Sound, Fiordland, 24 January 2024 | 25/01/2024 | 95 |
| MO-2024-203: <i>Chokyo Maru</i> No.68, ran aground, Hauraki Gulf, New Zealand, 16 April 2024 | 16/04/2024 | 45 |
| MO-2024-204: <i>Aratere</i> , grounding, near Picton, 21 June 2024 | 22/06/2024 | 5 |

^{*220} working days = 1 year

Groundings features in recently opened inquiries

On 30 June 2024, the four most recently opened maritime inquiries were groundings. Three further inquiries in progress at 30 June 2024 relate to loss of propulsion or steering. These inquiries are continuing with findings yet to be determined.

International inquiries assisted

The Commission assisted 8 international inquiries

The Commission assisted eight international inquiries over the year. Assistance usually takes the form of co-ordinating information flows. On occasion, this can be a material draw on resources.

Table 7: International inquiries assisted over 2023/24

| Inquiry | Status on 30 June 2024 |
|--|----------------------------------|
| AO-2023-004: Engine failure or malfunction involving a Boeing 737-838, VH-XZB, en-route Auckland to Sydney, Australia 18 January 2023 | Assistance ended (22/08/23) |
| AO-2023-009: Airspace incident involving Embraer E190-E2, registration VH-IKJ, near Napier Aerodrome, 25 May 2023 | Assistance ended (27/03/2024) |
| AO-2018-003: PAC 750 XL Aeroplane, engine abnormality requiring engine shut-down and glide landing, Sentani Airport, Jayapura, Papua, Indonesia, 21 May 2018 | In progress |
| AO-2023-002: Mid-air collision, two EC130 helicopters near Main Beach, Gold Coast, Queensland, 2 January 2023 | In progress |
| AO-2023-005: Collision with terrain, Robinson R22, VH-LOS 36km south of Ramingining, Northern Territory, Australia, 14 November 2022 | In progress |
| AO-2023-006: Collision with terrain involving Robinson R22, 2 October 2022 | In progress |
| AO-2023-012: Oxfordshire, Spitfire collision with terrain, 22 August 2023 | In progress |
| AO-2024-002: Boeing 787-9, in-flight disruption over Tasman Sea, 11 March 2024 | In progress |

How we performed Tā mātou whakatutukitanga

Context Horopaki

Our operating environment

We must stay effective in the face of a fast-changing environment Resilience is key if we are to continue to operative effectively in the face of an environment in which transport technologies continue to change at pace; or if a major disruptive event occurs such as a large-scale accident or a natural disaster. Our business planning is built on being able to respond quickly to unexpected disruptions and adapt to new circumstances.

The challenge of rapidly changing remains

We have previously noted that the main challenge in our operating environment is the rapid change in technology. This challenge remains as the use and sophistication of intelligent systems transforms transport systems. The potential safety risks of new technologies increase when they are retrofitted to older systems or aircraft and vehicles, a common practice in New Zealand.

Digital information provides evidence we would not otherwise have

It is vital for the Commission to have access to digital information because it helps us gather evidence about what happened before an occurrence and sometimes during an occurrence sequence and confirm what eyewitnesses saw.

We noted in our *Annual Report 2022/23* that we had one specialist to retrieve and examine digital evidence sometimes from badly damaged equipment. We were to recruit a second in-house expert over 2023/24 as the demand for forensic data analysis increases. Recruitment was delayed pending Government decisions, but was underway again by July 2024.

Our strategic intentions

We identify safety issues from investigations, and transfer that knowledge to others so they can act to improve transport safety

For the period covered by this annual report, the Commission's *Statement of Intent 2021–2025* set out our overall direction, based on our mission of *safer transport through investigation, learning and influence.*

Influence – our impact on the transport system – is achieved by having a clear and authoritative voice, and by being part of the national community of emergency response agencies.

Our strategic intentions are to:

- be accessible to make it easier for people or organisations to access our findings and recommendations
- be credible to maintain the highest standards in investigation processes
- be ready to respond to a large-scale event and enhance our capacity to contribute to national resilience.

In June 2024, under the Crown Entities Act 2004, we published a refreshed Statement of Intent (SOI) for the period 2024-2028. The new SOI continues the strategic direction of TAIC – to be influential in transport safety by being credible, accessible, and ready to respond to a large-scale accident.

We made good progress in achieving our strategic intentions and in meeting the Minister's expectations

The following pages describe key achievements in 2023/24, as well as some of the challenges we faced during the year. The tables beginning on page 50 describe progress against the measures on pages 7-9 of the *Statement of Performance Expectations 2023/24*.

At the beginning of 2023 we received a letter of expectations for the Commission for 2023/24 from the then Minister of Transport. It set out the specific expectations listed in Table 8 below. The table references the section in this Annual Report that describes how we have met the expectation over 2023/24.

Table 8: Meeting expectations

| Expectation | Annual Report reference |
|---|---|
| Continue to complete inquiries to a high standard, and communicate any wider timeliness impacts to their | Discussion on new case management system in 'Measure of progress in 2023/24', page 48. |
| progress. | 'Strategic intention to credible', page 53. |
| Continue to ensure there are appropriate plans and procedures for responding to 'shocks' such as a major accident or natural disaster. | Progress indicators and performance measures for strategic intention to be ready, page 56. |
| Explore modal trend analysis and insight sharing, in addition to case studies and the publication of the Watchlist. | Discussion on research strategy in the section 'Strategic intention to be credible' on page 53. |
| Influence the transport system by effectively sharing TAIC's insights and knowledge with participants. | Section on 'Our impact' beginning on page 18. |
| knowledge with purdelparits. | 'Strategic intention to be accessible' on page 50. 'Activity by mode' on page 30. |
| Ensure effective communication with key stakeholders, including families and next-of-kin, so that they are appropriately informed during the investigation process. | Final part of the section 'Knowledge transfer: communication core inquiry information' starting on page 16. 'Strategic intention to be accessible', page 50. |
| Continue to ensure New Zealand is well-represented on the international | 'International engagement' on page 18. |
| stage as a respected and trusted colleague within the international community of transport accident investigation bodies. | The case study on page 27. 'International inquiries assisted', page 41. |
| Support the Ministry's work programme and any cross-government initiatives exploring options for system improvements. This includes the regulatory stewardship programme, ministerial reviews, and actions to improve resilience and security across New Zealand. | Progress indicators for strategic intention to be ready, page 56. |

As an independent Crown entity with a statutory function, the November 2023 change of Government does not change what we do We are an independent Crown entity, with our purpose prescribed by legislation. Therefore, a change of Government, as occurred in November 2023, does not change what we do. However, we are mindful of the new Government's focus on delivering better public services while managing within tight fiscal constraints. We are a fiscally prudent organisation and will meet the expectations set out in the Enduring Letter of Expectations released 1 April 2024 by:

- striving to achieve greater value from our resources
- clearly accounting for costs and performance in our reporting
- taking a continuous improvement approach to all that we do.

Across the organisation there is a continuing focus on fiscal sustainability. Monthly reporting to the Board highlights specific actions being taken to achieve value for money and includes more detailed information about spending on contractors and consultants.

Improving resilience of the investigative team was put on hold over 2023/24

The Commission was successful in a funding bid for 2023/24. The funding was for increasing investigation capacity and strengthening resilience in specialist areas of expertise (forensic data analysis and human factors). Starting in July 2023, we began work to establish new staff positions.

A hold was put on recruiting for vacancies across the organisation pending Government decisions, but began again in July 2024. The hold on recruitment contributed to a financial surplus for 2023/24.

We will report on application of the funding to build investigative capacity in the 2024/25 annual report.

Significant budget initiatives

We report against two significant budget initiatives Table 9 below shows significant inititiatives the Commission has received funding for over the last three years. The initiatives are all delivered under through our single appropriation class *accident or incident investigation and reporting*. The table references the section in this Annual Report where more information about the budget initiative can be found.

Table 9: Significant budget initiatives

| Initiative | 2023/24 funding \$000 | Annual Report reference |
|--|-----------------------------|--|
| Capacity to conduct additional rail safety investigations (from 2023/24) | \$1,141 | Final paragraph in the section 'Our strategic intentions', page 44 |
| Knowledge Transfer System – upgrades to support a more sustainable database (from 2020/21) | \$2,345 | 'Key achievements in 2023/24', page 48 Performance measures are bolded where they relate to the Knowledge Transfer System. |

Progress towards strategic intentions Te kauneke ki nga takune rautaki

Key achievements in 2023/24

The project to implement our Knowledge Transfer System progressed well over the year...

Digitally transforming the organisation by developing a contemporary knowledge transfer system has been a significant focus in recent years.

Knowledge transfer is about collecting and organising data and information, and sharing it to make transport safer. Physical assets, people, and processes work together to make knowledge transfer happen.

From 2020/21 we received funding to support our knowledge transfer system, including replacement of our IT systems. Many of our performance measures for 2023/24 relate to the application of that funding. These are shown in **bold** on the following pages.

...and our new case management system is now being used for all aspects of the investigation process... We reported in the 2022/23 annual report, that we had launched a new case management system (Hubstream). It has many benefits for strengthening the rigour of the investigation process such as ensuring thoroughness and consistency in the analysis process.

By 30 June 2024, the project to implement Hubstream was in its final stages. Over the year, the project team further customised the system for TAIC processes and integration with existing systems such as SharePoint.

Investigators have received continuing training and support and their knowledge of, and confidence with, the new system grows. It is now being used for all aspects of the investigation process. The approach to implementation – a slow and supported transition to the new system – has paid off with high levels of engagement.

...although further work on management reporting and 'business as usual' developments will continue

A key benefit from the new system is improved management reporting, enabling improved efficiency and effectiveness of our end-to-end investigation process. For example, Commissioners now receive a more comprehensive monthly report about notifications received, together with the assessments supporting the Chief Investigator's decisions on launching an inquiry. Reporting is now automated, having previously been a time-consuming manual process.

Upcoming work includes enhancing features related to evidence management, risk management and compliance, and training and human resources. The next major focus is on developing management dashboards.

In August 2024, the project team hands over to 'business as usual' processes. A change committee and Champions Group will implement future enhancements.

We continue to work with the Ministry of Transport on Crown entity matters We continue to work with the Ministry of Transport to ensure we meet our Crown entity obligations, and to support the Ministry's work programmes, including regulatory stewardship.

Measures of progress in 2023/24

We use indicators of progress towards, and measures of success in achieving, strategic intentions The tables in the following pages shows the progress we have made in internal projects and activities that indicate progress towards our strategic intentions. Progress is measured against the targets set out on pages 7 to 11 of the *Statement of Performance Expectations 2023/24*.

For each strategic intention we include a measure of whether we are succeeding in meeting it. These measures are designed to show the impact of our work to be accessible, credible, and ready, on our ability to influence. Wherever possible we use an independent, external measure such as results from our stakeholder survey.

Strategic intention to be accessible

Indicators of progress

| Indicator Stakeholder communications support knowled | dge transfer |
|--|--------------|
|--|--------------|

Target 30-Jun-24 Review Communications Strategy

Conduct stakeholder survey

Achieved

An independent research company conducted the stakeholder survey in

March and April 2024 and presented results to the Board in June 2024. The
results form part of the measures of our impact through influence (page 28)
by being accessible (page 52) and by being credible (page 54).

The review of the Communications Strategy was delayed until the results of the stakeholder survey were known. A half-day communications workshop was held with the Board in July 2024, using themes from the survey. A refreshed Communications Strategy will be finalised in the first half of 2024/25.

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Indicator

The Research Strategy supports knowledge transfer

Target 30-Jun-24

Enhance website to improve searchability

Develop a classification system for safety issues

Establish internal research library

Identify and implement options for accessing technical and academic research

Partly achieved

The project to upgrade the website has been moved into the 2024/25 financial year. Scoping work for the project indicated the cost was likely to be greater than originally budgeted. It was considered prudent to delay while more cost-effective solutions were explored. In addition, it became apparent that it was preferable to wait until Hubstream, the new case management system, was embedded in ongoing business before diverting resource to the website upgrade (Hubstream will feed information to the website).

The intention to develop a 'classification system' for safety issues has been overtaken by the implementation of Hubstream. Hubstream allows for 'safety themes' to be created and linked to various types of data held within the system such as safety issues, recommendations, and notifications. An in-house search tool, currently under development, obviates the need for a 'classification system' as originally envisaged. It fulfils the aim of making our body of knowledge more searchable and more easily analysed for trends over time and commonalities across modes.

An internal research library has been established.

Options for accessing technical and academic research is awaiting the recruitment of a researcher.

Are we succeeding?

Impact measure

Proportion of stakeholders who can find the information they need from us

Tool

Biennial stakeholder survey

Target

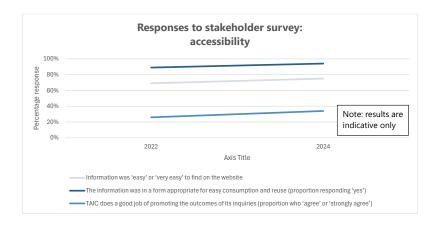
At each survey, we aim for most stakeholders to respond positively to survey questions related to finding information and its usefulness.

The long-term target is for an increasing trend in the proportion of positive responses to these questions. We do not set a numerical target because the survey is small, so any survey-to-survey change is not statistically meaningful.

Partly achieved

The graph below shows the results of the two stakeholder surveys in 2022 and 2024. The results indicated that, although respondents considered our information easy to find and to re-use, we could do a better job in promoting the outcomes of inquiries.

As a result of the review of the Communications Strategy over 2023/24 (refer previous page), the Commission is planning some adjustments to its communications – for example, more focussed messaging – which, together with the refreshed website, aims to improve promotion of our inquiries.



Strategic intention to be credible

Indicators of progress

| | ca | |
|--|----|--|
| | | |

Investigation processes are:

- fully documented
- integrated with TAIC workflows
- continually improved

Target 30-Jun-24

Implement the recommendations from the 2022/23 external reviews of two inquiries

Achieved

Completed. No significant recommendations arose from the 2022/23 external reviews.

Over 2023/24, cultural competency procedures for investigators were developed. They were added into the investigation process map on 1 July 2024. Their purpose is to guide investigation staff in operating effectively, respectfully, and safely with tangata whenua.

Indicator

TAIC can undertake system risk trend analysis and target case selection to the highest safety risks

Target 30-Jun-24

Review the risk-based approach to setting criteria for opening inquiries, which was implemented in 2022/23

Achieved

The Event Risk Classification model provides a systematic method for assessing the risk associated with the events we are notified about. The information contributes to the decision to launch an inquiry. The mode we use is based on one used by the Australian Transport Safety Bureau (ATSB).

The model has contributed to a maturing of our approach to setting the criteria for launching an inquiry. This is beginning to be reflected in the makeup of our casebook – *see* aviation activity for the year starting on page 30.

The model was reviewed over 2023/24. No major changes were made.

Are we succeeding?

| Impact measure | Judicial reviews of Commission inquiries that identify process issues* |
|----------------|---|
| Target | None |
| Achieved | There were no judicial reviews of Commission inquiries in 2023/24. |
| | * Performance measure for the appropriation for output class 'accident or incident investigation and reporting' – see page 70 |
| | |
| Impact measure | Successful challenges from an Ombudsman, the Privacy Commissioner or the Human Rights Commission of an administrative decision or action |
| Target | None |
| Achieved | There were no challenges from an Ombudsman, the Privacy Commissioner or the Human Rights Commission of an administrative decision or action in 2023/24. |

Impact measure

Proportion of stakeholders who view TAIC's information about transport safety issues as credible and influential

Tool

Biennial stakeholder survey

Target

At each survey, we aim for most stakeholders to respond positively to survey questions related to credibility and influence. Measures related to influence are reported above.

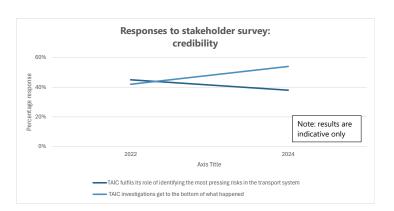
The longer-term target is for an increasing trend in the proportion of positive responses to these questions. We do not set a numerical target because the survey is small, so any survey-to-survey change is not statistically meaningful.

Partly achieved

The graph below shows the results of the two stakeholder surveys in 2022 and 2024. The results indicated that, although respondents considered TAIC gets to the bottom of what happened in an occurrence, we could do better at identifying the most pressing risks in the transport system.

Over time, we aim to improve stakeholder responses to the question about identifying the most pressing risks by:

- continuing use of the Event Risk Classification model introduced in 2022/23, which, as noted above, is contributing to a maturing risk-based approach to setting the criteria for launching inquires
- increasing our efforts to promote understanding of the Commission's role within the transport sector.



Strategic intention to be ready

Indicators of progress

Indicator

We have plans and processes for responding to a major accident

Target 30-Jun-24

Review Major Accident Readiness Plan

Implement recommendations from any desktop exercises

Achieved

Over 2023/24, we continued work to enhance our readiness to respond to a large-scale accident as effectively as we can. A project is underway to action outstanding items in the Major Accident Readiness Plan. ¹⁸

In June 2024, all staff (including Business Services staff) received training on the Coordinated Incident Management System, (New Zealand's official framework to achieve effective co-ordinated incident management across responding agencies). The training proved valuable in identifying areas that function well and others to work on, such as giving greater clarity in assigning roles.

TAIC participated as an observer in the Whakarauora Tangata Nationally Significant Search and Rescue (SAR) Exercise, conducted under the auspices of the NZSAR Council. Its purpose is to evaluate the current cross-agency policies, procedures, capabilities, and capacity, to ensure that New Zealand is adequately prepared for a large-scale SAR event.

Several practical lessons were learned, including the importance of logging and recording decisions in a dynamic and fast-paced environment, as well as prioritising intelligence planning/gathering during the initial response phase.

We are planning an internal desktop exercise in 2024/25.

¹⁸ In 2022/23 the Commission adopted a Major Accident Plan (what to do in the event of a large-scale accident) and Major Accident Readiness Plan (how to maintain readiness for a large-scale accident). The plans are about managing the response to a large-scale accident rather than investigation.

Indicator

IT systems are scalable

Target 30-Jun-24

Review Data Strategy

Achieved

The Data Strategy was reviewed after the *Statement of Intent 2024-2028* was finalised. It was considered that, with minor amendments, the Strategy remains fit-for-purpose. The Board approved the Strategy at the June 2024 meeting.

Indicator

The Commission is active in the national community of emergency response agencies and our role and functions are well understood

Target 30-Jun-24

Commission representative attends all meetings of relevant working groups

Commission staff participate in all relevant desktop exercises

Achieved

The Chief Investigator of Accidents attends the Incident Management Reference Group (IMRG). The IMRG is an information sharing forum for central government agencies that operate an incident management team at a national level during emergencies. At its April 2024 meeting, TAIC's Human Factors Specialist gave a presentation on Human Factors in accident Investigation.

An Investigation Services Manager attended meetings of the Transport Resilience and Security Advisory Group (TRSAG). This forum, led by the Ministry of Transport, is a forum for the transport sector to collaborate on resilience issues and share information and knowledge. The group is currently reviewing a draft guide to Transport Emergency Management in New Zealand. This guide will have an impact on our Major Accident Plan.

As noted on the previous page, TAIC participated in exercise Whakarauora Tangata over the reporting period.

Are succeeding?

| Impact measure | National emergency response plans for a major accident incorporate TAIC and the Commission |
|----------------|--|
| Target | Positive evaluation from any desktop exercise |
| n/a | No desktop exercises were held over 2023/24. |

Organisational health and capability Hauora me te āheinga ā-whakahaere

Good employer obligations

We are committed to being a good employer

The Commission is committed to being a good employer. A range of policies and guidelines help ensure we:

- meet all legal obligations to staff
- are clear about standards and expectations, and fair in implementing them
- build a positive and inclusive work culture.

Policies and guidelines are regularly reviewed, and consulted with staff whenever a change affects them.

From time-to-time, we commission an independent company to survey staff for their feedback on workplace culture and how they feel about working at TAIC. The latest survey, held in March 2024, had positive results, which, overall, were above the public sector benchmark. The survey also pointed to areas for improvement, particularly building cultural competency and improving IT systems and work processes. These were areas similar to those from last year, and we continue to work on these areas.

Recruitment processes are sensitive to diversity

The Commission widely advertises vacant positions and runs a comprehensive recruitment process so we can make the best appointments possible.

All new employees and other workers, for example contract staff, have an individualised induction process to help them settle into the organisation. This includes the online diversity and inclusion learning module Mana Āki. We expect our people to stand by the Public Service Principles and the Commission's Code of Conduct and organisational values.

Our training programme ensures all staff have the knowledge and skills essential to their specialist work The Commission encourages training and professional development across the organisation. We ensure investigation and corporate staff develop and maintain the knowledge and skills essential to their specialist work.

For investigators, it takes at least two years to become trained and experienced enough to be regarded as fully effective. The role requires transport sector experience and technical knowledge

supported by strong investigative and analytical skills. Traditionally, we have sent investigators to train in general and mode-specific investigation methods at Cranfield University in the UK.

Over the year, we implemented a Competency and Training Framework. The framework is an assurance process designed to ensure investigators have the capability, knowledge and skills needed to carry out all stages of an investigation to a high standard.

As a smaller organisation, we need a flexible workforce

The organisation that supports the Commission is small comprising 38 permanent positions, mostly fulltime. The Executive Leadership Team comprises the Chief Executive and two General Managers. There are a further four tier 3 managers.

As a smaller organisation, the Commission requires a flexible workforce if we are to respond quickly to operational needs. Investigators especially need to work outside normal office hours at times. To balance these demands, the Commission allows flexible working hours and time off in lieu to employees who are required to work in the weekends.

We commissioned an independent audit of our health and safety systems...

The Commission promotes a safe and healthy working environment for employees. Over 2023/24, we commissioned an independent audit of our health and safety systems against best practice, receiving the final report in August 2023.

The audit identified that there is a high level of engagement in health, safety and wellbeing (HSW) across the organisation, and legal obligations are being met. But further work is desirable to mature the health and safety system; build health, safety and wellbeing capability; and improve health, safety and wellbeing risk management practices to ensure resiliency and continuous improvement.

...and have a project underway to implement its recommendations The audit resulted in a number of recommendations. We developed these recommendations into a programme of work to ensure our systems and processes are best practice. Completing this work requires expertise TAIC did not have in-house. Therefore, at the end of March 2024, we recruited a senior health and safety adviser on a fixed-term basis. As well as implementing the audit's recommendations, the health and safety adviser will provide

subject matter expertise as part of our investigations, as needed. The position has been funded by holding a Business Services position vacant.

By 30 June 2024 a project plan had been completed, and the review and development of systems and processes was well underway. Developing and implementing enhanced systems and processes, training, and final handover to 'business as usual' is expected to be completed in the last quarter of the 2024 calendar year.

Diversity and inclusion

We value our people and their unique backgrounds

In February 2024, the Commission published its second Equity Action Plan. This reaffirms our commitment to building a diverse and inclusive workplace. We aim to employ people equitably and fairly, and bring together different perspectives and experiences. However, we are realistic about what we can achieve in terms of diversity, given the small size of our organisation.

Achievements in equity have already been made...

Over 2023/24 we demonstrated our commitment to diversity and inclusion in several areas. We:

- continued the downward trend in our gender pay gap it is now very low, although our small size means quantitative measures are not statistically valid
- maintained gender balance in our management team and increased the diversity in our workforce
- reviewed several policies and guidelines to remove unconscious bias or discrimination
- undertook a review of our remuneration system including reviewing job sizing and salaries of existing staff to ensure equity
- built on our positive working culture and continued to celebrate diversity in the workplace with participation in Māori Language Week and Mental Health Awareness Week.

...and we have more plans

Over 2024/25 we plan to:

- further develop HR information and resources for staff on our intranet
- include consideration of gender and ethnic equity in performance review moderation
- update our flexible working policy and guidance on remote working
- continue to support our organisation's positive approach to unconscious bias, diversity and inclusion.

Cultural competency

We continued our cultural competency programme

The 2023/24 year marked the culmination of our initial three-year cultural competency programme. We continued to work on our te Tiriti o Waitangi obligations and how they apply to the Commission and our functions and operations.

For example, over 2023/24, we developed cultural competency procedures for investigators to guide them in operating effectively, respectfully and safely with tangata whenua (*see* 'Strategic intention to be credible' on page 53). We updated our families programme to incorporate the tangata whenua/mana whenua component of the investigation processes (*see* the section on knowledge transfer on page 16).

Our programme of education and awareness about the history of te Tiriti and tikanga Māori is ongoing.

Looking to the future we have developed a three-year cultural competency programme which looks to consolidate the steady progress made to date, although we acknowledge we are at the introductory stages of achieving our longer-term goals.

Engagement with manu whenua is important to us. We are working to further consolidate relationships established during the past year.

Māori language planning

Use of te reo is encouraged at all levels of the organisation

During the year, we extended the use of te reo Māori, for example using it in standard email greetings, and using bilingual job titles and position descriptions.

Over 2023/24, we offered online te reo modules to our staff. Managers encourage and role model common greetings in te reo. Karakia and mihimihi are used to open and close meetings, including Commission and Board meetings. Looking to the future, the use of te reo Māori remains an area of focus for our organisation.

Sustainability

We are committed to environmental responsibility

Independent Crown entities are currently excluded from mandatory participation in the Carbon Neutral Government Programme. Regardless, we are measuring our emissions on a voluntary basis, recognising and supporting the Government's ambition of a NetZero by 2050 target.

We are committed to operating in an energy-efficient environment and aim to reduce greenhouse gas emissions wherever reasonably possible, taking into consideration our emissions profile and reduction potential. Initiatives are already in place, and more are under development to limit our emissions as much as is practicable.

Our highest category of emissions is travel. Where practicable and appropriate, we attend meetings and conferences online. However, the nature of our work means that we must be able to train our staff to required standards and deploy to occurrence sites if we are to conduct our investigations without compromising quality. This involves expending emissions through travel, predominantly air travel.

Performance measures: organisational health and capability (HR)

Indicators of progress

Indicator We have the expertise we need

Target 30-Jun-24 Put in place agreements/contracts for backups of specialist roles

Achieved Completed: a contract is in place for a back-up communications specialist. Emergency backups for other roles such as the Senior Information Management

Adviser have been identified.

Indicator We have an effective investigation team

Target 30-Jun-24 Fully implement competency-based training package

Achieved In last year's annual report (that is, for the year ended 30 June 2023), we noted the development of a Competency and Training Framework. The framework is an assurance process designed to ensure TAIC investigators have the capability, knowledge and skills needed to carry out all stages of an investigation with a high degree of independence and professionalism.

> The framework was implemented in February 2024. Investigators are now graded against it and have professional development plans aligned with the career pathway that the framework describes. Nevertheless, work continues to add further rigour to the framework. A project is underway to create, test, and update TAIC processes and collateral such as training materials, assessment tools for managers and assessors, and online records storage processes. The project is due for completion by December 2024.

Are we succeeding?

| Impact measure | Proportion of investigators who are designated investigator-in-charge or senior investigator |
|----------------|---|
| Tool | Competency Framework grading |
| Target | 11 (from an establishment of 18, ¹⁹ including the Chief Investigator of Accidents and the three Investigation Services managers) |
| Achieved | 12 investigators are designated investigator-in-charge or senior investigator. |

-

¹⁹ In the *Statement of Performance Expectations 2023/24*, this number is 17. Since the target was set, the Specialist Services Manager qualified as an investigator and is now included in this measure.

Performance measures: organisational health and capability (IT)

Indicator of progress

| Indicator | Data and information systems support TAIC's work, including data scaling demands |
|------------------|--|
| Target 30-Jun-24 | Fully implement case management system Successfully complete the change management programme |
| Achieved | The new case management system is now being used for all investigations and has therefore been shown as 'achieved'. The project team will complete some supporting enhancements before handing over to 'business as usual' in August |

improvement process.

2024. Refer to the section on page 48 for a full description of progress achieved and further planned development work that will become part of a continuous

Are we succeeding?

Impact measure

Proportion of employees who consider they have the tools to do their job

Tool

Ask Your Team survey

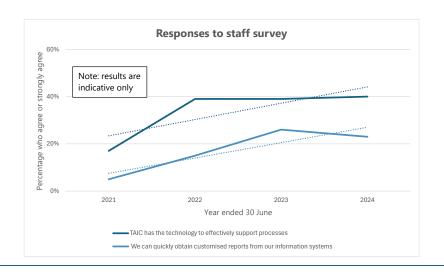
Target

At each survey, we aim for a result above 50% for each of two survey questions that are about information systems.

The long-term target is for an increasing trend in the results for these questions. We do not set a numerical target because the survey numbers are small, so any survey-to-survey change is not statistically meaningful.

Not achieved

The graph below shows the results of the four staff surveys taken annually since 2021.²⁰ The results indicate that since the first survey in 2021, an increased percentage of staff agree or strongly agree that TAIC has the technology to support processes, and can easily obtain customised reports from systems. With further work on developing reporting from the new case management system – see 'Key achievements in 2023/24' on page 48 – we expect improved results in 2024/25.



²⁰ The scoring method was changed this year but has been applied consistently to all results shown.

Statement of Performance Ngā pūrongo whakatutukinga

Output class: accident or incident investigation and reporting

The Commission has one output class: accident or incident investigation and reporting

The Commission has one output class: accident or incident investigation and reporting. The appropriation for this output class intends to achieve the conduct and completion of independent inquiries into selected aviation, rail, and maritime accidents and incidents with a view to avoiding recurrences.

The Statement of Performance Expectations 2023/24 sets out our performance measures and explains the reasons for choosing them

This section provides an overview of the Commission's output performance for cost, volume, and timeliness measures over the 2023/24 financial year. Table 10 on page 71 reports outcomes against the targets and expectations set out on page 4 of the *Statement of Performance Expectations 2023/24*. Table 11 on page 72 summarises the costs of this output class.

The section beginning on page 48 of this Annual Report show progress towards strategic intentions using the indicators set out on pages 7 to 11 of the *Statement of Performance Expectations* 2023/24.

In choosing our performance measures, we have considered what information is most appropriate and meaningful to users; that is, how we can best 'tell the story' of what we want to achieve and how well we are doing in reaching our aims and objectives. The section beginning on page 12 of the *Statement of Performance Expectations 2023/24* sets out the judgements and assumptions we made in choosing those performance measures.²¹

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²¹ The Statement of Performance Expectations 2023/24 is here on our website: Strategy and performance | TAIC

Table 10: Output measures against Statement of Performance Expectations 2023/24 targets and expectations

| A ctual Tarret A ctual I | | | | | | |
|--|---------------------------------------|-------------------|---------------------|-------------------|--|--|
| Financial | Instrument | Actual 2023/24 | Target 2023/24 | Actual 2022/23 | | |
| Average cost of domestic inquiries completed* | Timesheet and financial data analysis | \$543K | \$400–450K | \$467K | | |
| Volume | Instrument | Actual 2023/24 | Expected 2023/24 | Actual 2022/23 | | |
| Number of reports published for domestic inquiries (incl. interim reports)* | Casebook analysis, manual count | 16 | 17–27** | 16 | | |
| Number of inquiries by overseas jurisdictions assisted* | Casebook data analysis | 8 | 4–8 | 12 | | |
| Number of domestic inquiries in progress at each month's end (12 month rolling average, as at 30 June) | Casebook data analysis | 26 | 30 | 26 | | |
| Timeliness | Instrument | Actual 2023/24 | Target 2023/24 | Actual 2022/23 | | |
| Proportion of closed domestic inquiries completed within 440 working days* | Casebook data analysis | 82% | 70% | 73% | | |

^{*} Performance measure for the appropriation for this output class

^{**} The expected volume of reports published in 2023/24 was increased from 2022/23 in anticipation of increased investigation capacity over the year, which did not eventuate – see the final paragraph in the discussion under 'Our strategic intentions' beginning on page 44

Table 11: Cost of service statement and reporting against appropriations

| Output class summary | Actual 2023/24 \$000 | Budget 2023/24 \$000 | Actual 2022/23 \$000 |
|--|----------------------------|----------------------------|----------------------------|
| Accident or incident investigatio | n and reporting | | |
| Revenue - Crown | 9,273 | 9,273 | 7,247 |
| Revenue – other | 171 | 69 | 103 |
| Costs | (8,098) | (9,342) | (7,488) |
| Surplus/deficit | 1,346 | - | (138) |
| Non-departmental output expenses | | | |
| Accident or incident investigation and reporting – operating | 9,273 | 9,273 | 7,247 |

Average cost of inquiries

The cost of an inquiry is taken over the whole of its life

The cost of an inquiry is taken over the whole of its life and is calculated once the inquiry is completed. Included in the cost of an inquiry is:

- staff time spent on the inquiry
- direct costs (for example, travel or costs or technical consultant fees)
- a proportion of general overheads calculated according to the elapsed time taken to complete the inquiry as well as the staff time spent on it.

In general, the time taken to complete the inquiry (in terms of elapsed time and staff hours dedicated to it), rather than direct costs, drives the total cost.

The average cost of inquiries completed in 2023/24 was higher than expected

The financial performance measure is the average cost of the inquiries completed over the year. For 2023/24, the target was \$400-450k. The actual average cost was \$542k, 20 per cent above the upper level of the target range.

Figure 5 below shows the time to publication and cost of each inquiry completed in 2023/24. It shows that two aviation inquiries took notably longer to complete and were more costly than the others, increasing the averages.

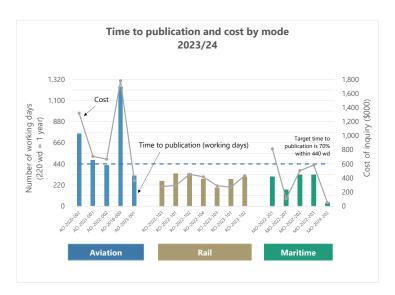


Figure 5: Time to publication and cost

Volume

Over the year, we dealt with 43 domestic inquiries, published 16 reports and assisted 8 overseas investigations

Volume measures indicate our workload for the year. Because our work is demand driven, they are 'expected values' rather than 'targets'.

Over 2023/24, the Commission dealt with 43 domestic inquiries, launching 17, maintaining progress on 16, and publishing 16 reports (15 for completed inquiries – one report covered two inquiries – and one preliminary report). Refer to the second footnote in Table 10 on page 71 for information about lower-than expected volume in 2023/24.

The Commission assisted 8 investigations conducted by overseas investigation agencies. Refer to page 18 for our obligations to undertake this work.

Figure 6 below shows the number of active inquiries over each of the last five years. (Note that one inquiry was closed and completed over the year and in the graph below is included in the launched and completed numbers.)

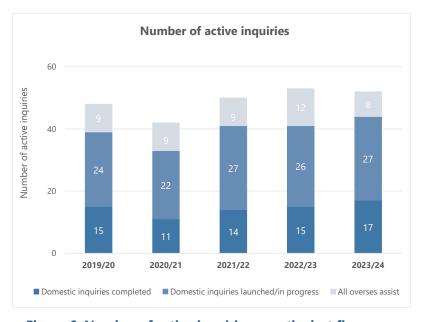


Figure 6: Number of active inquiries over the last five years

The average number of domestic inquiries in progress at the end of the year was the same as last year

The number of reports published over a financial year is a 'snapshot' of activity. We use another measure – a rolling average of inquiries in progress – to show trends in workload.

Given the number of inquiries we expect to launch each year and the time taken to complete an inquiry, we expect to have about 30 in progress at any given time. For the trend measure, we work out the average number of inquiries in progress at the end of each month; then calculate a rolling average to smooth out the 'lumpiness' in demand.

This rolling average shows the trend in our workload. An increasing trend, especially if consistently higher than 30, could indicate capacity issues.

On 30 June 2024, the 12-month rolling average of the number of domestic inquiries in progress was 26.0, compared with 26.0 on 30 June 2023.

Figure 7 shows the number of inquiries in progress at the end of each month, and the 12-month rolling average, for the last five years.

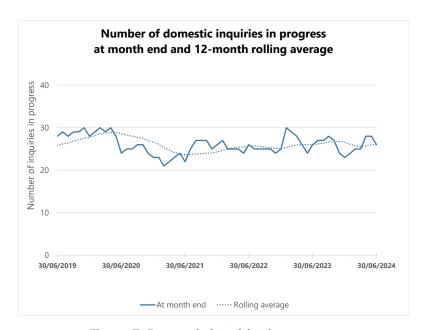


Figure 7: Domestic inquiries in progress

Timeliness: age of inquiries in progress

The average age of inquiries at the end of 2024 is less than at the same time last year

At the end of every month, we calculate the age of every inquiry we are working on, that is, the number of days from when it was launched. The calculation is shown in working days (220 working days is one calendar year). We take the average of these ages, and then calculate a 12-month rolling average.

The rolling average indicates the trend in the age of our casebook, that is, how quickly we are working through inquiries and how this is changing over time. An increasing trend could indicate a backlog of cases is developing, especially if the number of inquiries in progress is also high.

On 30 June 2024 the 12-month rolling average age of inquiries in progress was 219 working days. This is an 18 per cent decrease from the same time last year (266 working days).

Figure 8 shows that the 12-month rolling average of the age of inquiries in progress has been relatively steady over the last two years.

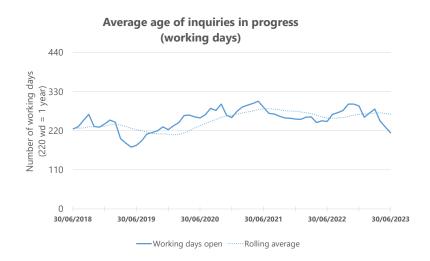


Figure 8: Average age of inquiries in progress

Timeliness: age of inquiries at publication

The target for completing inquiries recognises that some are more complex than others

The Commission aims to publish the final report of an inquiry within 440 working days of it being launched; however, more complex inquiries may take longer. Complexity can arise for many reasons such as technical aspects of the occurrence being investigated, or the number and/or substance of submissions received on draft reports.

The timeliness target is that 70 per cent of final reports are published within 440 workings days (two years).

We met the timeliness target for completed inquiries

During the 2023/24 year, 17 inquiries were completed, with 15 inquiry reports published. One report covered two inquiries; and one inquiry was closed by resolution without a report being published. One further report was published, a preliminary report.

Of the 17 inquiries completed, 14 (82 per cent) were completed within 440 working days, meeting our timeliness target for the year. Of the 17 completed inquiries:

- 11 were completed in under 18 months (330 working days)
- 3 were completed between 18 months and two years (331–440 working days)
- 3 took longer than two years (440 working days).

There are differences across

Table 12 below shows the average time to completion for final reports for inquiries completed 2023/24 by mode. As noted above, two aviation inquiries took notably longer than the others to complete. These two inquiries considerably increased the average time to publication.

Table 12: Time to completion by mode

| 2023/24 | Aviation | Rail | Maritime | Total |
|---|----------|------|----------|-------|
| Number of completed inquiries | 5 | 7 | 5 | 17 |
| Completed within 440 working days | 2 | 7 | 5 | 14 |
| Average time to completion (working days) | 644 | 285 | 233 | 375 |

The time to completion of domestic inquiries over the last five years is shown by mode in Figure 9.

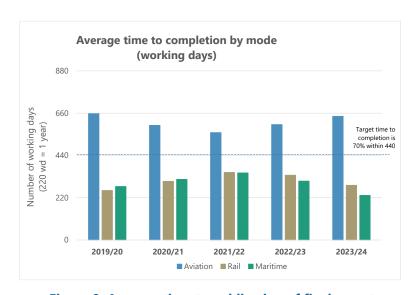


Figure 9: Average time to publication of final reports

Financial statements

Ngā tauākī pūtea

STATEMENT OF COMPREHENSIVE REVENUE AND EXPENSE FOR THE YEAR ENDED 30 JUNE 2024

| | Notes | Actual 2024 \$000 | Budget 2024 \$000 | Actual 2023 \$000 |
|---|-------|-------------------------|-------------------------|-------------------------|
| Revenue | | | | |
| Funding from the Crown | | 9,273 | 9,273 | 7,247 |
| Interest revenue | | 115 | 16 | 27 |
| Other revenue | 2 | 56 | 53 | 76 |
| Total Revenue | | 9,444 | 9,342 | 7,350 |
| Expenditure | | | | |
| Audit Fees | | 24 | 26 | 24 |
| Commissioners' fees | 3 | 390 | 390 | 368 |
| Depreciation and amortisation expense | 6&7 | 160 | 188 | 160 |
| Lease, rentals and outgoings | | 734 | 749 | 628 |
| Personnel costs | 3 | 4,680 | 5,136 | 4,122 |
| Other expenses | | 2,110 | 2,853 | 2,186 |
| Total Expenditure | | 8,098 | 9,342 | 7,488 |
| Net Surplus/(Deficit) | | 1,346 | - | (138) |
| Other Comprehensive revenue and expense | | - | - | - |
| | | | | |
| Total Comprehensive revenue and expense | | 1,346 | - | (138) |

Explanations of major variances against budget are provided in note 18.

STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2024

| Assets | Notes | Actual 2024 \$000 | Budget 2024 \$000 | Actual 2023 \$000 |
|---|-------|-------------------------|-------------------------|-------------------------|
| Current assets | | | | |
| Cash and cash equivalents | 4 | 3,326 | 1,796 | 1,286 |
| Receivables | 5 | - | 3 | 3 |
| Prepayments | | 141 | 72 | 139 |
| Total current assets | | 3,467 | 1,871 | 1,428 |
| Non-current assets | | | | |
| Property, plant and equipment | 6 | 1,116 | 1,088 | 1,176 |
| Intangible assets | 7 | 4 | - | 15 |
| Total non-current assets | | 1,120 | 1,088 | 1,191 |
| Total assets | | 4,587 | 2,959 | 2,619 |
| Liabilities and taxpayers' funds Current liabilities | | | | |
| Payables | 8 | 443 | 245 | 338 |
| Employee entitlements | 9 | 484 | 356 | 437 |
| Lease incentive | 10 | 33 | 33 | 33 |
| Total current liabilities | | 960 | 634 | 808 |
| Non-current liabilities | | | | |
| Employee entitlements | 9 | 36 | 32 | 33 |
| Lease incentive | 10 | 306 | 306 | 339 |
| Total non-current liabilities | | 342 | 338 | 372 |
| Total liabilities | | 1,302 | 972 | 1,180 |
| Net assets | | 3,285 | 1,987 | 1,439 |
| Equity | | | | |
| General funds | | 2,785 | 1,487 | 1,421 |
| Capital Contribution | | 500 | 500 | 18 |
| Total equity | | 3,285 | 1,987 | 1,439 |

Explanations of major variances against budget are provided in note 18.

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 30 JUNE 2024

| | Notes | Actual 2024 \$000 | Budget 2024 \$000 | Actual 2023 \$000 |
|--|-------|-------------------------|-------------------------|-------------------------|
| Balance at 1 July | | 1,439 | 1,487 | 1,577 |
| Total comprehensive revenue and expense for the year | | 1,346 | - | (138) |
| Total Capital Contributions | | 500 | 500 | - |
| Balance at 30 June | | 3,285 | 1,987 | 1,439 |

Explanations of major variances against budget are provided in note 18.

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 JUNE 2024

| | Notes | Actual 2024 \$000 | Budget 2024 \$000 | Actual 2023 \$000 |
|--|-------|-------------------------|-------------------------|-------------------------|
| Cash flows from operating activities | | | | |
| Receipts from the Crown | | 9,273 | 9,273 | 7,247 |
| Interest received | | 118 | 16 | 25 |
| Receipts from other revenue | | 56 | 51 | 496 |
| Payments to suppliers | | (3,251) | (4,135) | (3,778) |
| Payments to employees | | (4,630) | (5,140) | (4,030) |
| GST (net) | | 63 | - | (41) |
| Net cash flows from operating activities | | 1,629 | 65 | (81) |
| Cash flows from investing activities | | | | |
| Purchase of property, plant and equipment | | (89) | (111) | (944) |
| Purchase of intangible assets | | - | _ | (8) |
| Sale of property, plant and equipment | | - | - | - |
| Net cash flows from investing activities | | (89) | (111) | (952) |
| Cash flows from financing activities | | | | |
| Capital Contribution from the Crown | | 500 | 500 | - |
| Net cash flows from financing activities | | 500 | 500 | - |
| Net (decrease)/increase in cash and cash equivalents | | 2,040 | 454 | (1,033) |
| Cash and cash equivalents at the beginning of the year | | 1,286 | 1,342 | 2,319 |
| Cash and cash equivalents at the end of the year | 4 | 3,326 | 1,796 | 1,286 |

Explanations of major variances against budget are provided in note 17.

The GST (net) component of cash flows from operating activities reflects the net GST paid to and received from the Inland Revenue Department. The GST (net) component has been presented on a net basis, as the gross amounts do not provide meaningful information for financial purposes and to be consistent with the presentation basis of other primary financial statements.

NOTES TO THE FINANCIAL STATEMENTS

1. Statement of accounting policies

Reporting Entity

The Transport Accident Investigation Commission (TAIC) is an independent Crown entity established under the Transport Accident Investigation Commission Act 1990. Its main purpose is to inquire into maritime, aviation and rail occurrences within New Zealand with a view to determining their causes and circumstances rather than ascribe blame, and to assist overseas agencies.

TAIC's ultimate parent is the New Zealand Crown.

TAIC may also co-ordinate and co-operate with overseas accident investigation authorities or represent New Zealand during accident investigations conducted by overseas authorities in which New Zealand has a specific interest

TAIC's investigation capability is occasionally extended, on either a pro bono public or a cost recovery basis to Pacific Island States.

TAIC has designated itself as a public benefit entity (PBE) for financial reporting purposes.

The financial statements for TAIC are for the year ended 30 June 2024 and were approved by the Board on 24 October 2024.

Basis of preparation

The financial statements have been prepared on a going concern basis, and the accounting policies have been applied consistently throughout the period.

Statement of compliance

The financial statements of TAIC have been prepared in accordance with the requirements of the Crown Entities Act 2004, which includes the requirement to comply with generally accepted accounting practice in New Zealand (NZ GAAP).

The financial statements and service performance information have been prepared in accordance with Tier 2 PBE accounting standards. The Commission has elected to report in accordance with Tier 2 due to having expenditure of less than \$30m.

These financial statements comply with PBE Reduced Disclosure Regime.

Presentation currency and rounding

The financial statements are presented in New Zealand dollars and all values are rounded to the nearest thousand dollars (\$000).

Summary of significant accounting policies

Significant accounting policies are included in the notes to which they relate.

Significant accounting policies that do not relate to a specific note are outlined below.

Foreign currency transactions

Foreign currency transactions are translated into NZ\$ (the functional currency) using the spot exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the surplus or deficit.

Goods and services tax

All items in the financial statements are stated exclusive of GST except for receivables and payables, which are stated on a GST inclusive basis. Where GST is not recoverable as input tax then it is recognised as part of the related asset or expense.

The net amount of GST recoverable from, or payable to, the Inland Revenue Department (IRD) is included as part of receivables or payables in the statement of financial position.

The net GST paid to, or received from, the IRD, including the GST relating to investing and financing activities, is classified as an operating cash flow in the statement of cash flows.

Commitments and contingencies are disclosed exclusive of GST.

Income tax

TAIC is a public authority and consequently is exempt from the payment of income tax. Accordingly, no provision has been made for income tax.

Budget figures

The budget figures are derived from the statement of performance expectations as approved by the Board at the beginning of the financial year. The budget figures have been prepared in accordance with NZ GAAP, using accounting policies that are consistent with those adopted by the Board in preparing these financial statements.

Critical accounting estimates and assumptions

In preparing these financial statements, TAIC has made estimates and assumptions concerning the future. These estimates and assumptions may differ from the subsequent actual results. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectation of future events that are believed to be reasonable under the circumstances.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are:

- useful lives and residual values of property, plant, and equipment refer to note 6
- useful lives of acquired software assets refer note 7.

Critical judgements in applying the Commission's accounting policies

Management has exercised the following critical judgements in applying accounting policies:

leases classification – refer note 12.

2. Revenue

Accounting policy

The specific accounting policies for significant revenue items are explained below:

Funding from the Crown

TAIC is primarily funded from the Crown. This funding is restricted in its use for the purpose of TAIC meeting the objectives specified in its founding legislation and the scope of the relevant appropriations of the funder.

TAIC considers there are no conditions attached to the funding and it is recognised as revenue at the point of entitlement.

The fair value of revenue from the Crown has been determined to be equivalent to the amounts due in the funding arrangements.

Donated assets

Where a physical asset is gifted to or acquired by TAIC for nil consideration or at a subsidised cost, the asset is recognised at fair value and the difference between the consideration provided and fair value of the asset is recognised as revenue. The fair value of donated assets is determined as follows:

- For new assets, fair value is usually determined by reference to the retail price of the same or similar assets at the time the asset was received.
- For used assets, fair value is usually determined by reference to market information for assets of a similar type, condition, and age.

Interest

Interest revenue is recognised by accruing on a time proportion basis the interest due for the investment.

Rental revenue

Lease receipts under an operating sublease are recognised as revenue on a straight-line basis over the lease term.

Breakdown of other revenue and further information

| | Actual 2024 \$000 | Actual 2023 \$000 |
|--|-------------------------|-------------------------|
| Rental revenue from property subleases | 53 | 41 |
| Other revenue | 3 | 35 |
| Total revenue | 56 | 76 |

3. Personnel Costs

Accounting policy

Superannuation schemes

Defined contribution schemes

Obligations for contributions to KiwiSaver are accounted for as a defined contribution superannuation scheme and are recognised as an expense in the surplus or deficit as incurred.

Breakdown of personnel costs and further information

| | Actual 2024 \$000 | Actual 2023 \$000 |
|--|-------------------------|-------------------------|
| Salaries and wages | 4,373 | 3,782 |
| Defined contribution plan employer contributions | 168 | 140 |
| Increase/(decrease) in employee entitlements | 37 | 92 |
| Recruitment | 49 | 48 |
| Other staff costs | 53 | 60 |
| Total personnel costs | 4,680 | 4,122 |

Commissioner remuneration

The total value of remuneration paid or payable to each Commissioner during the year was:

| Commissioner | Actual 2024 \$000 | Actual 2023 \$000 |
|--|-------------------------|-------------------------|
| Ms J Meares (Chief Commissioner) | 111 | 136 |
| Mr S Davies Howard (Deputy Chief Commissioner) | 77 | 68 |
| Mr R Marchant (Commissioner term expired October 2022) | - | 20 |
| Ms P Rose QSO (Commissioner) | 65 | 64 |
| Ms B R Arapere (Commissioner) | 69 | 40 |
| Mr D Clarke (Commissioner) | 68 | 40 |
| Total Commissioner remuneration | 390 | 368 |

Employee remuneration

| | Actual 2024 | Actual 2023 |
|-------------------------------------|----------------|----------------|
| Total remuneration paid or payable: | | |
| \$100,000-\$109,999 | 2 | 2 |
| \$110,000-\$119,999 | 3 | 6 |
| \$120,000-\$129,999 | 5 | 5 |
| \$130,000-\$139,999 | 6 | 2 |
| \$140,000-\$149,999 | 2 | 2 |
| \$150,000-\$159,999 | 2 | 2 |
| \$160,000-\$169,999 | - | 1 |
| \$170,000-\$179,999 | 2 | 1 |
| \$180,000-\$189,999 | 1 | - |
| \$210,000-\$219,999 | - | 2 |
| \$220,000-\$229,999 | 1 | |
| \$230,000-\$239,999 | 1 | |
| \$290,000-\$299,999 | 1 | 1 |
| Total employees | 26 | 24 |

During the year ended 30 June 2024, one employee received compensations and other benefits in relation to cessation of \$18,000 (2023: nil).

4. Cash and cash equivalents

Accounting policy

Cash and cash equivalents include cash on hand, deposits held on call with banks, and other short-term, highly liquid investments with original maturities of three months or less.

Breakdown of cash and cash equivalents and further information

| | Actual 2024 \$000 | Actual 2023 \$000 |
|--|-------------------------|-------------------------|
| Cash at bank and on hand | 3,326 | 880 |
| Short-term deposits maturing in less than 3 months | - | 406 |
| Total cash and cash equivalents | 3,326 | 1,286 |

5. Receivables

Accounting policy

Short-term receivables are recorded at the amount due, less an allowance for credit losses. TAIC applies the simplified expected credit loss model of recognising lifetime expected credit losses for receivables.

In measuring expected credit losses, short-term receivables have been assessed on a collective basis as they possess shared credit risk characteristics. They have been grouped based on the days past due.

Short-term receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include the debtor being in liquidation.

Breakdown of other revenue and further information

| | Actual 2024 \$000 | Actual 2023 \$000 |
|---|-------------------------|-------------------------|
| Receivables (gross) | - | 3 |
| Less: Allowance for credit losses | - | - |
| Receivables | - | 3 |
| Receivables comprise: | | |
| Receivables from the sale of goods and services (exchange transactions) | - | 3 |

There have been no changes during the reporting period in the estimation techniques or significant assumptions used in measuring the loss allowance.

6. Property, plant and equipment

Accounting policy

Property, plant and equipment consists of the following asset classes: buildings, furniture and office equipment and computer equipment.

All asset classes are measured at cost, less accumulated depreciation and impairment losses.

Additions

The cost of an item of property, plant and equipment is recognised as an asset if, and only if, it is probable that future economic benefits or service potential associated with the item will flow to TAIC and the cost of the item can be measured reliably.

Work in progress is recognised at cost less impairment and is not depreciated.

In most instances, an item of property, plant and equipment is initially recognised at its cost. Where an asset is acquired through a non-exchange transaction, it is recognised at its fair value as at the date of acquisition.

Disposals

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount of the asset. Gains and losses on disposals are reported net in the surplus or deficit.

Subsequent costs

Costs incurred subsequent to initial acquisition are capitalised only when it is probable that future economic benefits or service potential associated with the item will flow to TAIC and the cost of the item can be measured reliably.

The costs of day-to-day servicing of property, plant and equipment are recognised in the surplus or deficit as they are incurred.

Depreciation

Depreciation is provided on a straight-line basis on all property, plant and equipment at rates that will write-off the cost of the assets to their estimated residual values over their useful lives. The useful lives and associated depreciation rates of major classes of property, plant and equipment have been estimated as follows:

| Fixed asset type | Useful life (years) | Depreciation rate |
|--------------------------------|------------------------|----------------------|
| Buildings (store) | 5 – 50 | 2% to 20% |
| Computer equipment | 2 – 10 | 10% to 50% |
| Furniture and office equipment | 2.1 – 14 | 7% to 48% |

The residual value and useful life of an asset is reviewed, and adjusted if applicable, at each financial year end.

Impairment of property, plant and equipment

TAIC does not hold any cash-generating assets. Assets are considered cash-generating where their primary objective is to generate a commercial return.

Non-cash-generating assets

Property, plant and equipment and intangible assets that have a finite useful life are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable service amount. The recoverable service amount is the higher of an asset's fair value less costs to sell and value in use.

Value in use is determined using an approach based on either a depreciated replacement cost approach, restoration cost approach, or a service units approach. The most appropriate approach used to measure value in use depends on the nature of the impairment and availability of information.

If an asset's carrying amount exceeds its recoverable service amount, the asset is regarded as impaired and the carrying amount is written down to the recoverable amount. The total impairment loss is recognised in the surplus or deficit.

The reversal of an impairment loss is recognised in the surplus or deficit.

Movement for each class of property, plant and equipment are as follows:

| | Buildings | Computer equipment | Furniture and office equipment | Total |
|---------------------------------|-----------|--------------------|--------------------------------------|-------|
| | \$000 | \$000 | \$000 | \$000 |
| Cost | | | | |
| Balance as at 1 July 2022 | 731 | 217 | 201 | 1,149 |
| Balance at 30 June 2023 | 1,250 | 238 | 133 | 1,621 |
| Balance at 1 July 2023 | 1,250 | 238 | 133 | 1,621 |
| Additions | - | 80 | 9 | 89 |
| Disposals | - | - | = | - |
| Balance at 30 June 2024 | 1,250 | 318 | 142 | 1,710 |
| Accumulated depreciation | | | | |
| Balance as at 1 July 2022 | 313 | 179 | 175 | 667 |
| Balance at 30 June 2023 | 119 | 210 | 116 | 445 |
| Balance at 1 July 2023 | 119 | 210 | 116 | 445 |
| Depreciation Expense | 101 | 41 | 7 | 149 |
| Elimination on disposal | | - | - | - |
| Balance at 30 June 2024 | 220 | 251 | 123 | 594 |
| Carrying Amounts | | | | |
| At 1 July 2022 | 418 | 38 | 26 | 482 |
| At 30 June 2023 and 1 July 2023 | 1,131 | 28 | 17 | 1,176 |
| At 30 June 2024 | 1,030 | 67 | 19 | 1,116 |

As at year end there was no work in progress (2023: nil) or capital commitments.

7. Intangible Assets

Accounting policy

Software acquisition and development

Acquired computer software licenses are capitalised on the basis of the costs incurred to acquire and bring to use the specific software.

Costs associated with maintaining computer software are recognised as an expense when incurred.

Amortisation

The carrying value of an intangible asset with a finite life is amortised on a straight-line basis over its useful life. Amortisation begins when the asset is available for use and ceases at the date that the asset is derecognised. The amortisation charge for each financial year is recognised in the surplus or deficit.

The useful lives and associated amortisation rates of major classes of intangible assets have been estimated as follows:

| Fixed asset type | Useful life (years) | Depreciation rate |
|-------------------|------------------------|----------------------|
| Acquired Software | 2.1 – 10 | 10% – 48% |

Impairment of intangible assets

Refer to the policy for impairment of property, plant and equipment in note 6. The same approach applies to the impairment of intangible assets.

Breakdown of intangible assets and further information

Movement for each class of intangible assets are as follows:

| | Acquired software | Total |
|---|-------------------|-------|
| | \$000 | \$000 |
| Cost | | |
| Balance at 1 July 2022 | 1,037 | 1,037 |
| Balance at 30 June 2023 and 1 July 2023 | 1,045 | 1,045 |
| Additions | - | - |
| Disposals | - | - |
| Balance at 30 June 2024 | 1,045 | 1,045 |
| Accumulated amortisation | | |
| Balance at 1 July 2022 | 1,015 | 1,015 |
| Balance at 30 June 2023 and 1 July 2023 | 1,030 | 1,030 |
| Amortisation expense | 11 | 11 |
| Disposals | - | - |
| Balance at 30 June 2024 | 1,041 | 1,041 |
| Carrying amounts | | |
| At 1 July 2022 | 22 | 22 |
| At 30 June 2023 and 1 July 2023 | 15 | 15 |
| At 30 June 2024 | 4 | 4 |

As at year end there was no work in progress or capital commitments (2023: nil)

8. Payables

Accounting policy

Short-term payables are recorded at their face value.

Breakdown of payables

| | Actual 2024 \$000 | Actual 2023 \$000 |
|--|-------------------------|-------------------------|
| Payables under exchange transactions | | |
| Creditors | 168 | 172 |
| Accrued expenses | 113 | 67 |
| Total payables under exchange transactions | 281 | 239 |
| Payables under non-exchange transactions | | |
| Taxes payables (GST, PAYE, and rates) | 162 | 99 |
| Total payables under non-exchange transactions | 162 | 99 |
| Total payables | 443 | 338 |

9. Employee entitlements

Accounting policy

Short-term employee entitlements

Employee benefits that are due to be settled within 12 months after the end of the period in which the employee renders the related service are measured based on accrued entitlements at current rates of pay.

These include salaries and wages accrued up to balance date and annual leave earned, but not yet taken at balance date.

Long-term employee entitlements

Employee benefits that are due to be settled beyond 12 months after the end of the year in which an employee provides a related service, such as long service leave, have been calculated based on:

- likely future entitlements accruing to employees based on years of service, years to entitlement, the likelihood that employees will reach the point of entitlement, and contractual entitlement information
- the present value of the estimated future cash flows.

Presentation of employee entitlements

Annual leave and vested long service leave are classified as a current liability. Non-vested long service leave expected to be settled within 12 months of balance date is classified as a current liability. All other employee entitlements are classified as non-current liabilities.

Breakdown of employee entitlements

| | Actual 2024 \$000 | Actual 2023 \$000 |
|-----------------------------|-------------------------|-------------------------|
| Current portion | | |
| Accrued salaries and wages | 173 | 151 |
| Annual leave | 291 | 276 |
| Long service leave | 20 | 10 |
| Total current portion | 484 | 437 |
| Non-current portion | | |
| Long service leave | 36 | 33 |
| Total non-current portion | 36 | 33 |
| Total employee entitlements | 520 | 470 |

10. Lease incentives

Accounting policy

Any unamortised lease incentive received is recognised as a liability in the statement of financial position. A lease incentive liability is created to spread the incentive received at the inception of the lease, throughout the term of the lease.

Lease incentive

| | Actual 2024 | Actual 2023 |
|---------------------------|----------------|----------------|
| | \$000 | \$000 |
| Current portion | | |
| Lease incentive | 33 | 33 |
| Total current portion | 33 | 33 |
| Non-current portion | | |
| Lease incentive | 306 | 339 |
| Total non-current portion | - | - |
| Total lease incentive | 339 | 372 |

11. Related party transactions

TAIC is a wholly owned entity of the Crown.

Related party disclosures have not been made for transactions with related parties that are within a normal supplier or client/recipient relationship on terms and conditions no more or less favourable than those that it is reasonable to expect TAIC would have adopted in dealing with the party at arm's length in the same circumstances. Further, transactions with other government agencies (for example, Government departments and Crown entities) are not disclosed as related party transactions when they are consistent with the normal operating arrangements between government agencies and undertaken on the normal terms and conditions for such transactions.

| Key management personnel compensation | | |
|---|-------------------------|-------------------------|
| | Actual 2024 \$000 | Actual 2023 \$000 |
| Commission Members | | |
| Remuneration | 390 | 368 |
| Full-time equivalent members | 1.04 | 1.06 |
| Leadership Team | | |
| Remuneration | 755 | 718 |
| Full-time equivalent members | 3 | 3 |
| Total key management personnel remuneration | 1,145 | 1,086 |
| Total full-time equivalent personnel | 4.04 | 4.06 |

The full-time equivalent for Board members has been determined based on the frequency and length of Board meetings and the estimated time for Board members to prepare for meetings.

12. Operating Leases

Accounting policy

An operating lease is a lease that does not transfer substantially all the risks and rewards incidental to ownership of an asset to the lessee.

Lease incentives received are recognised in the surplus or deficit as a reduction of rental expense over the lease term.

Operating leases as lessee

The future aggregate minimum lease payments to be paid under non-cancellable operating leases are as follows:

| | Actual 2024 \$000 | Actual 2023 \$000 |
|---|-------------------------|-------------------------|
| Not later than one year | 654 | 669 |
| Later than one year and not later than five years | 2,533 | 2,554 |
| Later than five years | 2,408 | 3,041 |
| Total non-cancellable operating leases | 5,595 | 6,264 |

TAIC leases two properties. TAIC also has operating leases for photocopier equipment and meeting room hardware. A significant portion of the total non-cancellable operating lease expense relates to the lease of an office building. The lease expires in September 2034. TAIC does not have the option to purchase the asset at the end of the lease term.

There are no restrictions placed on TAIC by any of its leasing arrangements.

13. Financial instruments

Financial instruments categories

The carrying amounts of financial assets and liabilities in each of the financial instrument categories are as follows:

| | Actual 2024 \$000 | Actual 2023 \$000 |
|--|-------------------------|-------------------------|
| Financial assets measured at amortised cost | | |
| Cash and cash equivalents | 3,326 | 1,286 |
| Receivables | - | 3 |
| Total financial assets measured at amortised cost | 3,326 | 1,289 |
| Financial liabilities measured at amortised cost | | |
| Payables (excluding taxes payable) | 266 | 239 |
| Total financial liabilities measured at amortised cost | 266 | 239 |

TAIC has credit card facilities with the Westpac up to \$180k. A letter of credit up to \$195k is in place with the Westpac for iPayroll Limited, TAIC's payroll services provider.

14. Contingencies

Contingent liabilities

TAIC has a contingent liability relating to make good costs for the lease of new office premises at 10 Brandon Street. Make good costs will only be incurred at the end of the lease if either some of the chattels installed by TAIC are removed, or if the landlord requires TAIC to remove some or all the alterations and/or additions to reinstate the premises. This contingent liability also existed on 30 June 2023.

Contingent assets

There were no contingent assets existing at balance date. (2023: nil)

15. Events after the balance date

There were no significant events after balance sheet date.

16. Guarantee

TAIC has a \$10 million guarantee from the Minister of Finance for use in the event of a major transport accident (air, rail or marine) where TAIC would have to hire specialist recovery equipment. This is expected to be a near permanent guarantee.

17. Explanation of major variances against budget

Explanations for significant variations from the TAIC's budgeted figures in the statement of performance expectations are as follows:

Statement of comprehensive revenue and expense

Interest revenue

Interest revenue is \$99k higher than budgeted due to higher than anticipated cash balances due to the hold on recruitment of vacances during the year, pending Government's budget 2024 decisions.

Personnel costs

Personnel costs are less than budget due to the hold on recruitment to vacancies pending the Government's budget 2024 decisions.

Other expenses

Other expenses are \$456k less than budgeted due to recruitment and training costs less than budget due to the hold on recruitment during the year. Additional IT resource budgeted for the Knowledge Transfer System project was also not required due to the current project resourcing being sufficient to meet project deliverables.

Statement of financial position

Cash and cash equivalents

Cash and cash equivalents are higher than budgeted mainly due to the hold on recruitment to vacancies.

Payables

Payables are higher than budgeted mainly due to timing of creditor payments.

Statement of changes in cash flows

Receipts from interest revenue is higher than budget due to the increased cash balances during the year because of the hold on recruitment.

Payments to suppliers is \$884k less than budget due the level of recruitment costs and training budget not required due to the hold on recruitment. Additional IT resource budgeted for the Knowledge Transfer System project was also not required due to the levels of project resourcing being sufficient to meet deliverables.

Payment to employees is \$510k less than budget due to the hold on recruitment.

Independent auditor's report Ripoata motuhake a te kaiarotake



Independent auditor's report

To the readers of the Transport Accident Investigation Commission's Financial Statements and Performance Information for the year ended 30 June 2024

The Auditor-General is the auditor of the Transport Accident Investigation Commission (the 'Commission'). The Auditor-General has appointed me, Andrew Steel, using the staff and resources of Moore Markhams Wellington Audit, to carry out the audit of the financial statements and the performance information, including the performance information for appropriations, of the Commission on his behalf.

Opinion

We have audited:

- the financial statements of the Commission on pages 80 to 97, that comprise the statement of
 financial position as at 30 June 2024, the statement of comprehensive revenue and expenses,
 statement of changes in equity and statement of cash flows for the year ended on that date and the
 notes to the financial statements that include material accounting policy information and other
 explanatory information; and
- the performance information of the Commission on pages 70 to 78.

In our opinion:

- the financial statements of the Commission on pages 80 to 97:
 - present fairly, in all material respects:
 - its financial position as at 30 June 2024; and
 - its financial performance and cash flows for the year then ended; and
 - comply with generally accepted accounting practice in New Zealand in accordance with the Public Benefit Entity International Public Sector Accounting Standards - Reduced Disclosure Regime; and
- the Commission's performance information for the year ended 30 June 2024 on pages 70 to 78:
 - presents fairly, in all material respects, the performance for the year ended 30 June 2024, including:
 - for each class of reportable outputs:
 - its standards of delivery performance achieved as compared with forecasts included in the performance information expectations for the financial year; and
 - the actual revenue and output expenses as compared with the forecasts included in the performance information expectations for the financial year.
 - what has been achieved with the appropriations; and
 - the actual expenses or capital expenditure incurred compared with the appropriated forecast expenses or capital expenditure.
 - o complies with generally accepted accounting practice in New Zealand.

Our audit was completed on 24 October 2024. This is the date at which our opinion is expressed.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Commission and our responsibilities relating to the financial statements and the performance information, and we explain our independence.

Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Commissioners for the financial statements and the performance information

The Commissioners are responsible on behalf of the Commission for preparing financial statements and performance information that are fairly presented and that comply with generally accepted accounting practice in New Zealand.

The Commissioners are responsible for such internal control as it determines is necessary to enable it to prepare financial statements and performance information that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the performance information, the Commissioners are responsible for assessing the Commission's ability to continue as a going concern. The Commissioners are also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless there is an intention to liquidate the Commission or to cease operations, or there is no realistic alternative but to do so.

The Commissioners' responsibilities arise from the Public Finance Act 1989 and the Crown Entities Act 2004.

Responsibilities of the auditor for the audit of the financial statements and the performance information

Our objectives are to obtain reasonable assurance about whether the financial statements and the performance information, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures, and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be

expected to influence the decisions of readers taken on the basis of these financial statements and performance information.

For the budget information reported in the financial statements and the performance information, our procedures were limited to checking that the information agreed to the Commission's statement of performance expectations.

We did not evaluate the security and controls over the electronic publication of the financial statements and the performance information.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- We identify and assess the risks of material misstatement of the financial statements and the
 performance information, whether due to fraud or error, design and perform audit procedures
 responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a
 basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is
 higher than for one resulting from error, as fraud may involve collusion, forgery, intentional
 omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit 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 Commission's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Commissioners.
- We evaluate the appropriateness of the performance information which reports against the Commission's statement of performance expectations and appropriations.
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Commission's and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Commission's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements and the performance information or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Commission to cease to continue as a going concern.
- We evaluate the overall presentation, structure and content of the financial statements and the
 performance information, including the disclosures, and whether the financial statements and the
 performance information represent the underlying transactions and events in a manner that
 achieves fair presentation.

We communicate with the Commissioners regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

Other Information

The Commissioners are responsible for the other information. The other information comprises the information included on pages 1 to 69 but does not include the financial statements and the performance information, and our auditor's report thereon.

Our opinion on the financial statements and the performance information does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements and the performance information, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements and the performance information, or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Independence

We are independent of the Commission in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1: International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand) (PES 1) issued by the New Zealand Auditing and Assurance Standards Board.

Other than in our capacity as auditor, we have no relationship with, or interests, in the Commission.

Andrew Steel

Moore Markhams Wellington Audit

On behalf of the Auditor-General

Wellington, New Zealand

Kōwhaiwhai - Māori scroll designs

TAIC commissioned its four kōwhaiwhai, Māori scroll designs, from artist Sandy Rodgers (Ngāti Raukawa, Tūwharetoa, MacDougal). Sandy began from thinking of the Commission as a vehicle or vessel for seeking knowledge to understand transport accident tragedies and how to avoid them. A 'waka whai mārama' (i te ara haumaru) is 'a vessel/vehicle in pursuit of understanding'. Waka is a metaphor for the Commission. Mārama (from 'te ao mārama' – the world of light) is for the separation of Rangitāne (Sky Father) and Papatūānuku (Earth Mother) by their son Tāne Māhuta (God of man, forests and everything dwelling within), which brought light and thus awareness to the world. 'Te ara' is 'the path' and 'haumaru' is 'safe' or 'risk free'.

Corporate: Te Ara Haumaru - the safe and risk-free path



The eye motif looks to the future, watching the path for obstructions. The encased double koru is the mother and child, symbolising protection, safety and guidance. The triple koru represents the three kete of knowledge that Tāne Māhuta collected from the highest of the heavens to pass their wisdom to humanity. The continual wave is the perpetual line of influence. The succession of humps represents the individual inquiries. Sandy acknowledges Tāne Māhuta in the creation of this Kōwhaiwhai.

Aviation: Ngā hau e whā - the four winds



To Sandy, 'Ngā hau e whā' (the four winds), commonly used in Te Reo Māori to refer to people coming together from across Aotearoa, was also redolent of the aviation environment. The design represents the sky, cloud, and wind. There is a manu (bird) form representing the aircraft that move through Aotearoa's 'long white cloud'. The letter 'A' is present, standing for a 'Aviation'. Sandy acknowledges Ranginui (Sky father) and Tāwhirimātea (God of wind) in the creation of this Kōwhaiwhai.

Rail: rerewhenua - flowing across the land



The design represents the fluid movement of trains across Aotearoa. 'Rere' is to flow or fly. 'Whenua' is the land. The koru forms represent the earth, land and flora that trains pass over and through. The letter 'R' is present, standing for 'Rail'. Sandy acknowledges Papatūānuku (Earth Mother) and Tāne Mahuta (God of man and forests and everything that dwells within) in the creation of this Kōwhaiwhai.

Maritime: Ara wai - waterways



The sections of waves flowing across the design represent the many different 'ara wai' (waterways) that ships sail across. The 'V' shape is a ship's prow and its wake. The letter 'M' is present, standing for 'Maritime. Sandy acknowledges Tangaroa (God of the sea) in the creation of this Kōwhaiwhai.

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Transport Accident Investigation Commission
Te Kōmihana Tirotiro Aituā Waka

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