

CIVIL AVIATION AUTHORITY

Briefing to the Incoming Minister

JULY 2022

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Introduction from the Chief Executive and Director of Civil Aviation

The Civil Aviation Authority (the Authority or CAA) incorporates the Aviation Security Service (AvSec) and is Aotearoa New Zealand's operational aviation regulatory organisation that has the primary objective of keeping aviation safe and secure (why the Authority exists). Our work is shaped by the Civil Aviation Act 1990 (soon to be replaced with a new Act that is currently making its way through Parliament) and associated Rules (what the Authority does); and by our values-based approach and modern regulatory practice (how the Authority operates). The Director of Civil Aviation has independence from the Minister and the Board in respect to operational regulatory decision making.

Aviation is critical to Aotearoa New Zealand's domestic economy, global connections and reputation. It provides vital connections for the movement of people and goods around the country and around the world.

Maintaining safety and security is paramount. A safe and secure aviation system supports travel, tourism, many and varied domestic business activities, and the enjoyment of aviation as a sport and recreational pursuit for Aotearoa New Zealanders and visitors alike.

Aviation Regulation

There is a significant body of aviation law, rules and standards that keep Aotearoa New Zealand's aviation system safe and secure. Much of this reflects and gives effect to International Civil Aviation Organization (ICAO) Conventions. From a resourcing and prioritisation perspective, it is challenging for Parliament, Ministers, the Ministry of Transport and the Authority to keep this body of regulation up to date and fit for purpose. This is particularly the case in respect to emerging aviation technologies but is also reflected in the extensive number of regulatory policy issues that are 'on the books', but unable to be progressed.

The body of aviation regulation mixes prescriptive requirements with outcomes-based requirements and imposes significant duties on participants in the aviation system who have privileges (licenses, certificates) that enable them to operate aviation activities. Participants

have these duties because of the inherent risks associated with aviation that may come to fruition without appropriate care and attention; and the regulator cannot be involved in detail in all aviation activities. "Participants" include operators, pilots, engineers, cargo handlers, airports and other organisations involved in the aviation system.

Regulatory Practice

The Authority implements a significant body of safety and security regulation through a range of activities including education and engagement programs, security screening services at Aotearoa New Zealand's security designated airports, certification, licensing, auditing and monitoring, investigation and compliance action.

The foundation of our operating approach is to be an intelligence-led and risk-based regulator that understands the activities and risks occurring in the aviation system and can respond in an effective way to those that matter the most. Under the recently published Regulatory Safety and Security Strategy, the Authority is taking steps to make its aspirations to be intelligence-led and risk-based 'real' in everything it does. This involves developing systems and processes (information, intelligence and technology, safety management) and people capability (leadership, regulatory practice, critical thinking and decision making) that is aligned to this operating approach in both safety and security activity.

Responding to COVID-19

Aviation activity has been severely impacted by COVID-19 internationally and domestically.

There are internationally identified risks associated with COVID-19 in aviation including potential under-investment in equipment, maintenance, training, staffing levels and safety culture that are necessary to maintain safe operations. To date, the Authority’s work does not indicate aviation safety levels have been directly compromised in the Aotearoa New Zealand aviation system, as operators have taken a responsible approach during the last two years. As recovery occurs, however, we may see the results of economic pressure, a difficult employment environment and uneven recovery activity leading to safety outcomes being tested as operators push to return to pre-COVID activities. The Authority is monitoring this closely.

Aviation security will also be tested as activity ramps up internationally and domestically. During the last couple of years our Aviation Security Service (AvSec) has been flexible and engaged in supporting the All-of-Government COVID-19 response activities such as working in Managed Isolation and Quarantine (MIQ) facilities, and supporting Police in community safety activities across Aotearoa New Zealand. This has enabled AvSec to maintain a level of capacity and capability to assist in gearing up, but like all other elements of the aviation system there are challenges. These include:

- being ‘match fit’ (with some staff being out of their core roles for several years, and others who have only worked in a COVID-19 environment)
- getting fully resourced and able to meet fluctuating and rapidly increasing demand across a system that has multiple challenges from airport design and flight scheduling
- passenger experience and knowledge of travel and screening processes.

COVID-19 has severely impacted the Authority’s revenue (and therefore capacity and capability), as the majority of its revenue comes from fees, charges and levies on the aviation sector. Government has provided significant financial support and continues to do so, filling the gap between required expenditure and actual revenue.

Redaction made in accordance with section 9(2)(f)(iv) of the Official Information Act



Our people and culture

Our people are committed to doing a good job despite managing significant workloads, with the additional pressures associated with COVID-19 and, in Wellington where our main office is located, being in temporary

accommodation through to mid-2023, due to earthquake remediation in our Wellington office.

Following a 2020 review of our organisational culture, there has been a great deal of work with our people and unions to ensure that we have a positive workplace where our people feel respected, safe and included. While recent engagement surveys are positive, like all public organisations at this time we are challenged in recruitment, retention and remuneration.

Priorities for the organisation

Our priorities as an organisation as we prepare for the 2022/23 year are:

- addressing recruitment, retention and remuneration, alongside leadership; health, safety and well-being; and diversity and inclusion
- ensuring that we are able to deliver effectively on our core safety and security regulatory work by progressing our Regulatory Safety and Security Strategy, especially in respect to enabling an intelligence-led, risk-based approach and implementing technology that makes our safety and security activities more effective
- ensuring that we can effectively regulate emerging technology developments to facilitate economic development while maintaining aviation safety and security outcomes
- preparation for, and implementation of the new Civil Aviation Bill
- responding effectively to ICAO safety and security audits that test Aotearoa New Zealand’s alignment with international conventions



Redaction made in accordance with section 9(2)(f)(iv) of the Official Information Act

In the next three to six months the Authority will seek to brief you in more detail on these priorities and their associated challenges.



Keith Manch
Chief Executive and
Director of Civil Aviation

Who we are

The Civil Aviation Authority is a Crown entity responsible to the Minister of Transport. Civil aviation in Aotearoa New Zealand operates in a system established and maintained by the Civil Aviation Act 1990 (the Act).

We are mandated to:

Undertake safety, security, and other functions contributing to the aim of achieving an integrated, safe, responsive, and sustainable transport system.

The Authority exercises these functions under a number of Acts and delegations, including the:

- Aviation Crimes Act 1972
- Bill of Rights Act 1990
- Chicago Convention on International Civil Aviation 1944
- Civil Aviation Act 1990
- Crimes Act 1961
- Crown Entities Act 2004
- Health and Safety at Work Act 2015
- Hazardous Substances and New Organisms Amendment Act 2015
- Official Information Act 1982
- Privacy Act 1993
- Public Finance Act 1989
- Transport Accident Investigation Commission Act 1990
- Trespass Act 1980.

And as an organisation, is responsive to:

- the Treaty of Waitangi – Te Tiriti o Waitangi
- the Government's Health and Safety at Work Strategy 2018-2028
- He Pou a Rangi – Climate Change Commission advice.

Governance

The Minister appoints a Board to ensure the Authority performs well, manages risks prudently, and is sustainable over the longer term through a well-structured strategy.

Leadership

The Authority's leadership team manages the Authority's risks and requires that the Authority operates efficiently and effectively, delivering via its three key pathways:

- leadership and influence
- active regulatory stewardship
- professional regulatory practice.

We are part of the Aotearoa New Zealand transport system

Aviation is part of the wider transport system moving people and goods over land, sea and by air. The Authority contributes to the government's five outcomes for a transport system in Aotearoa New Zealand that improves the wellbeing and liveability of all Aotearoa New Zealanders

(see figure 1 below).

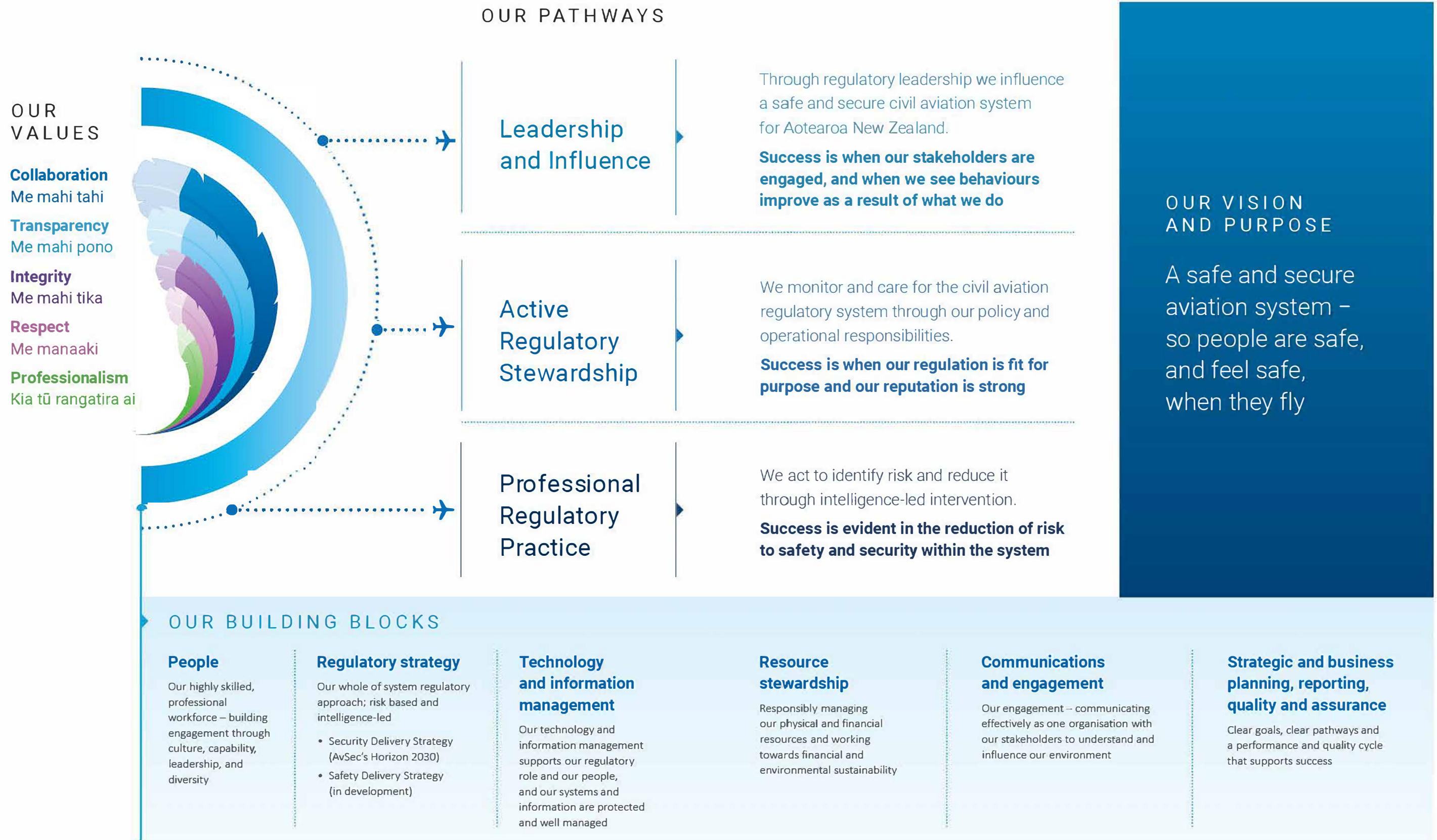


Fig 1: Transport Outcomes Framework



Our purpose and what we do

Our strategic framework



How we measure and report on our progress

Our interventions

Our interventions relate to the following aspects of the civil aviation system.

ENTRY

Exercise of control over entry into the New Zealand civil aviation system

- Quality and timeliness of rules and standards
- Robust entry renewal and amendment certification tasks
- Licensing procedures carried out effectively and efficiently.

ON-GOING OPERATION

Exercise of control over sustained operation in the New Zealand civil aviation system

- Applying a risk-based approach to safety and security system oversight
- Communicating effectively to the aviation community and stakeholders
- Ensuring participants are operating within their legal obligations through effective inspection and monitoring
- Responding appropriately to unsafe practice
- Effectively investigating occurrences
- Effectively monitoring, auditing and inspecting.

EXIT

Exercise of control over exit from the New Zealand civil aviation system

- Informed decision-making through intelligence and analysis.

CIVIL AVIATION SECURITY

Ensure threats are identified and associated risks are managed and international standards for security are met

- Effective screening activities.

What we deliver

OUTPUTS	
OUTPUT CLASS	OUTPUT
Output Class 1: Policy & Regulatory Strategy	International Relations and International Civil Aviation Organisation Obligations
	Ministerial Servicing
	Policy Advice
	System Level Design and Intervention
	Rules and Standards Development
Output Class 2: Outreach	Pacific Support
Output Class 3: Certification and Licensing	
Output Class 4: Monitoring, Inspection and Investigation	
Output Class 5: Security Service Delivery	Screening Activity
	Audit Performance; Access Control; Maritime Security Services

Indicators of our success

OUR VISION AND PURPOSE

A safe and secure aviation system – so people are safe, and feel safe, when they fly

- the frequency of accidents and fatalities remains low
- risk interventions demonstrate effective mitigation
- new technologies enabled
- security incidents remain at zero
- increasing confidence reported in our biennial 'Feel Safe' survey.

PATHWAY – LEADERSHIP AND INFLUENCE

- The Authority's domestic and international reputation grows positively (based on a composite of ICAO scores, stakeholder surveys, and performance against Output Class 1 – Policy & Regulatory Strategy).
- The Authority's outreach and influencing activities are positively received (based on outreach quality scores drawn from Output Class 2 – Outreach).

PATHWAY – ACTIVE REGULATORY STEWARDSHIP

- Aotearoa New Zealand aviation operators are free to operate internationally and domestically (based on composite of ICAO scores, signed international agreements, and the quality scores drawn from Output Class 3 – Certification and Licensing).
- The civil aviation regulatory system demonstrates value for money for Government, participants and users of the aviation system (based on value for money assessments).

PATHWAY – PROFESSIONAL REGULATORY PRACTICE

- The Authority's security service delivery is effective (lack of security incidents, and performance against Output Class 5 – Security Service Delivery).
- The Authority's certification and licensing activities are effective (assessment drawn from Output Class 3 – Certification and Licensing).
- The Authority's monitoring and investigation activities are effective (assessment drawn from Output Class 4 – Monitoring, Inspection and Investigation).

Transport outcomes and benefits



SAFE AND SECURE PEOPLE

Through decreasing number of accidents, deaths and injuries in the sector, as well as increasing confidence in the safety and security of the system.



MINIMISED ENVIRONMENTAL IMPACT

Through reduced greenhouse gas emissions.



POSITIVE ECONOMIC IMPACT

Through minimising the aviation-related barriers for movement of people and goods, and lower social cost of air accidents and incidents.



IMPROVED RESILIENCE AND SECURITY

Through reduction of risk due to adoption of safety management systems (SMS) throughout the sector, and few or zero security incidents in the aviation sector.

* Measured through a biennial Colmar Brunton survey

Our place in the global aviation system

Civil aviation is a globally interconnected system governed by the International Civil Aviation Organization (ICAO), of which Aotearoa New Zealand is a member. ICAO is a United Nations specialised agency, established in 1944 to manage the administration and governance of the Convention on International Civil Aviation (the Chicago Convention). The Authority is Aotearoa New Zealand's designated agency to manage all technical interactions with ICAO regarding safety and security matters.

ICAO works with 193 Member States and industry organisations to reach consensus on international civil aviation Standards and Recommended Practices (SARPs). ICAO strives to support a safe, efficient, secure, economically sustainable, and environmentally responsible international civil aviation system. ICAO Member States incorporate SARPs into national legislation to ensure that their international civil aviation operations and regulations conform to global norms. Consequently, adoption of these 'global practices' enables the global aviation network to operate safely and reliably in every region of the world.

The Civil Aviation Act 1990 (Act) empowers the Minister of Transport to make Rules to implement Aotearoa New Zealand's obligations under the Chicago Convention. The Act also states that the Rules shall not be inconsistent with ICAO standards to the extent adopted by Aotearoa New Zealand.

International comparison and ICAO audits

ICAO audits all Member States on their level of compliance against SARPs on a cyclic basis. The audits are focused on States' compliance with its international treaty law obligations for aviation safety and security compliance and oversight.

The Authority is Aotearoa New Zealand's designated agency to manage all technical interactions with ICAO regarding safety and security matters, including audits.

A security audit has been scheduled for late August 2022, and we are awaiting notification of a safety audit from ICAO. Both are key focal points for the Authority given the importance of these audits for our international reputation. The Authority has undertaken a project to prepare Aotearoa New Zealand for the audits.

Safety

ICAO's Universal Safety Oversight Audit Programme-Continuous Monitoring Approach (USOAP-CMA) is a systematic and objective assessment of a State's safety oversight system. It assesses whether the State has implemented the critical elements of a safety oversight system, as well as implementation of the SARPs and other procedures and guidance material.

USOAP-CMA audits take a continuous monitoring approach. States are expected to continuously update their compliance status and conduct ongoing online self-assessments through an online portal. This is then supplemented by a periodic on-site audit.

The overall audit results in an Effective Implementation (EI) score. The EI score is important because it indicates to other States how well we conform to ICAO's SARPs, and can be used to form a view on how safe and reliable an individual State's civil aviation system is.

ICAO last fully audited Aotearoa New Zealand in March 2006, resulting in an EI score of 83.59%. A USOAP-CMA audit was scheduled for December 2016. However, the November 2016 earthquake-related closure of the Authority premises over that period resulted in just one audit area being assessed (accident and incident investigation at the Transport Accident Investigation Commission (TAIC) office). That limited scope audit increased Aotearoa New Zealand's overall EI score to 85.63%.

ICAO EI Score (As at July 2020)

Our EI score can influence our ability to enter into bilateral agreements with other States (such as Australia, the United States, Singapore, Canada, Europe, etc). These agreements can help ease the regulatory burden on Aotearoa New Zealand aviation organisations operating in, or using services from, those countries.

Aotearoa New Zealand	85.63%
Australia	95.02%
OECD Average	86.95%
World Average	68.78%
Asia-Pacific Average (APAC)	65.87%

Consequently, a downgrade or stagnation of Aotearoa New Zealand's EI score could have a negative impact on Aotearoa New Zealand's reputation as a safe and secure place to operate. It might also have an adverse effect on the reputation of Aotearoa New Zealand-made aviation products overseas.

The Authority has some concerns that in recent years there has been insufficient priority assigned at a State-level to adopting ICAO SARPs in Aotearoa New Zealand legislation and rules. As a result, Aotearoa New Zealand's level of compliance is beginning to lag behind that of States it generally compares itself to such as Australia (95.02%), the United Kingdom (94.27%), and Canada (95.1%). Despite this, Aotearoa New Zealand's EI score remains substantially better than those seen in the Asia-Pacific region (65.87% and slightly below the OECD average (86.95%)).

The Authority has a target of its EI score being in the upper quarter of OECD countries.

Security

ICAO uses the Universal Security Audit Programme-Continuous Monitoring Approach (USAP-CMA) to determine the status of implementation of ICAO security SARPs by States. It is conducted by a separate area of ICAO than that involved in the USOAP-CMA. A USAP-CMA audit has also been scheduled for Aotearoa New Zealand and will take place from 29 August to 9 September 2022.

The security audit scope will include the full range of Aotearoa New Zealand's aviation security legislation, regulation, policies, practices and procedures and will assess those for compliance against the corresponding ICAO standards. This will include review of not only AvSec but also our independent security regulatory role, as well as State-level aviation security threat and risk assessment and operational response functions involving other government agencies.

Influencing the international arena to benefit Aotearoa New Zealand

Maintaining effective international engagement is important for Aotearoa New Zealand as global connectivity increases, new technology emerges, and the push towards greater harmonisation of rules and regulations for international travel and trade continues.

Our delegation to administer Aotearoa New Zealand's international civil aviation obligations and interests sees us coordinating Aotearoa New Zealand's input into ICAO conferences and meetings, managing the flow of incoming State letters and coordination of technical agreements with other States.

We are signatory to several bilateral and multilateral agreements with other States that support a commitment to unify aviation standards, rules, procedures, and processes, where this is in Aotearoa New Zealand's best interest.

The Authority is developing an International Engagement Strategy to better guide our international work, which will include how we:

- Work with other States and regulators to influence changes that will benefit aviation growth, safety and security.

- Seek mutual recognition arrangements in areas where it can help reduce the regulatory burden for Aotearoa New Zealand companies operating, or wanting to operate, overseas.
- Keep abreast of developments overseas to ensure we take a consistent approach to how we regulate where appropriate.
- Work with other States and regulators to share information, knowledge, expertise, and resources for mutual benefit.

Our approach to international engagement, and the strategy in development, will reflect the changes to the international environment that have occurred as a consequence of COVID-19. Changes include shifts in risk as airlines and others seek to re-establish themselves after a prolonged period of reduced activity; emerging technologies becoming more prominent; and changes in the international geo-political environment.

Supporting our Pacific neighbours

The Authority provides technical advice and assistance on request to many Pacific States through the Pacific Aviation Safety Office (PASO) to build safety and security capacity and expertise across the region.¹ Much of the Authority's work in the Pacific is funded by the Ministry of Foreign Affairs and Trade (MFAT), specifically the security-focused work of the Authority's Principal Aviation Security Advisor (Pacific Islands). We also provide technical support on request and run training programmes.

The Pacific Aviation Security Capacity Programme (PASCP) commenced in 2003 to assist Pacific Island Countries (PICs) to build aviation security capability and capacity. Following the 9/11 terror attacks, MFAT set up contestable funding mechanisms for core Aotearoa New Zealand Government agencies that provided security capacity support to PICs and to implement specific projects.

Initially the PASCP provided support to five PICs which had direct air services into Aotearoa New Zealand. Following requests for assistance from other PICs the aviation security program was aligned to those PICs that are signatory to the Pacific Island Civil Aviation Safety and Security Treaty (PICASST). The Treaty is the foundation document that establishes the Pacific Aviation Safety Office (PASO).

Signatories to PICASST include the Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The PASCP has several opportunities over the next few years to build aviation security capability and capacity in PICs. Initiatives to build capacity and capability include:

Nine PICs being recipients of new security screening systems that are comparable to systems being operated in Aotearoa New Zealand, Australia, and the United States. New security systems will be enhanced with Dual Imaging Explosive Detection Systems and Explosive Trace Detector Systems. Operational and technical training will continue to be provided, and a comprehensive service and maintenance agreement over seven years to ensure PICs have an appropriate level of support is included as part of this initiative.

Replacement of Airport Identity Card systems across PICs to ensure alignment with ICAO Guidance Material, and to include tamper-proof security features.

Work on the PASCP in a COVID-19 environment has resulted in assistance to PICs being provided remotely where possible whilst border restrictions are in place. The Authority will continue supporting the programme utilising funding by provided by MFAT.

¹ PASO was formed as a result of the Pacific Islands Civil Aviation Safety and Security Treaty signed by, the Cook Islands, the Federated States of Micronesia, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu. Aotearoa New Zealand, Australia and Fiji are observer Members.



Building a professional and respectful workplace culture

Our people are at the heart of everything we do. Our workforce connects us with the aviation sector around Aotearoa New Zealand. To continue to attract and retain talent so to achieve our strategic outputs, we must have a safe, respectful and inclusive workplace.



The Authority has recently done a number of things focused on creating a positive and collaborative work environment, while also building the capability and capacity of our people to undertake their roles.

The Authority's recent 'Your View' survey was completed in February 2022, reflecting a significant 4% score increase since the last survey in 2020. The survey also revealed average increases by 8% and 3% in scores for CAA and AvSec respectively. The survey also saw the average score by business group increase across every group in the Authority.

These increases indicate a positive improvement for the Authority and provide good indications on where we should continue focusing our efforts.

It also demonstrates that the Authority's dedicated programme focus on culture since May 2020 has had a positive shift following a Ministerial Review (the Review) into the organisational culture of the Authority under section 132 of the Crown Entities Act 2004 in September 2019.

The Review was initiated following media reports published in June 2019 that contained allegations of bullying, harassment, and poor workplace culture within the Authority.

To address the findings of the review, a culture change programme (Te Kākano) was established to implement the Review's 31 recommendations and to deliver meaningful and sustained change.

Te Kākano has made a significant contribution in setting up a number of pivotal tools and initiatives that have helped move the culture of the organisation, and in many cases went beyond the recommended actions. This programme of work transitioned into the People, Culture and Capability team in February 2022, thereby ensuring an ongoing and embedded focus on this sustained organisational change.

Te Kakano highlights:

Engagement

- Ensuring there were regular engagement opportunities for the Authority, our staff and unions to participate and consult on Te Kākano activities
- Creating opportunities for Te Kākano Taskforce members to engage with the Board to ensure staff voices continue being heard
- Transitioning our Taskforce members to become Values Champions to help raise staff awareness of our foundation pieces of work and embed these into the way we do things.

People focused actions, policies and process developments

- Launching Our Values and continuing to embed these via our Values Champions, and our policies and processes
- Developing a toolkit of resources for our Values Champions to lead positive activities and help grow a positive culture
- Holding 94 Respect and Inclusion workshops across the organisation. These brought together over 1300 of our people to create a common understanding of the new Our Values, discuss acceptable and unacceptable behaviour, and learn how to raise concerns and seek support
- Creating a new policy to address bullying, harassment and discrimination
- Providing a compulsory e-module on addressing bullying, harassment and discrimination for all staff

- Setting up a complaints process to provide a safe space for staff to raise concerns relating to bullying, harassment and discrimination
- Refreshing our external, confidential counselling service with expanded support for staff
- Releasing a refreshed Code of Conduct and supporting resources to help us build and maintain the high standards of behaviour we are required to meet as highly skilled, professional public servants working in a Crown agency
- Developing a Leadership Development Framework, which includes piloting a new management development programme.

Guiding our future direction

- Conducting an annual survey and two pulse surveys with all staff to measure improvement in creating a positive workplace
- Developing a range of strategies, which cover Leadership, Diversity and Inclusion, and Health, Safety and Wellbeing to ensure we continue to achieve lasting improvement.

Creating a safer aviation system

A key principle of Aotearoa New Zealand's aviation regulatory framework is that everyone shares a responsibility for safety and security. We ensure that aviation participants meet the standards set by Parliament and the Minister of Transport, and to ensure the aviation system is safe and secure.

Improving safety performance

Overall, safety in Aotearoa New Zealand's civil aviation system has improved over the past twenty years. Since 1998, both the number of aviation accidents and fatal accidents continue to decline, as new aircraft technology is utilised, regulatory interventions more effectively target risk, and participants in the system implement better ways to detect and minimise risks.

The public air transport accident rate, which covers passenger transport in large, medium, and small aeroplanes and passenger transport in helicopters, continues to decline. The accident rate for air transport activities is (as of December 2021) 0.92 per 100,000 hours and the rate for commercial non-passenger work is 5.7 per 100,000 flying hours. Overall that represents a slight recent upward trend in air transport accident rate and a stable/continuation trend for commercial non-passenger.

Whilst we have had success to date with the improvement of safety performance, we are continuing to further improve this. This is primarily by taking a hazard identification and risk-management approach, in line with ICAO's Safety Management System (SMS) mandate.

Historically, aviation operators in Aotearoa New Zealand were required to have a Quality Management System (QMS) which focused on internal quality assurance procedures. A QMS does not however, ensure that aviation operators are identifying and eliminating all safety risks. To meet new ICAO requirements, the Rules require all commercial operators to be equipped with a SMS. This is a significant change in approach to the way we regulate safety and how operators are expected to manage safety risks.

An SMS expands upon QMS requirements by applying a risk-based approach to the structure, responsibilities, processes, and procedures of an organisation. A proactive

risk and safety management programme assists operators to identify and manage potential hazards and risks before they can impact safety. The training, awareness and systems developed in an SMS provide the tools to both prepare for and recover from negative safety outcomes, and to develop strategies to defend an organisation against their occurrence in the first place. All the large commercial aviation operators have certified SMS systems in place. COVID lockdowns and travel restrictions have impacted the roll-out of SMS to the smaller aviation operators but all will be certified by October this year.

Our intelligence-led, risk-based approach

Our approach is based on gathering, analysing, and using data and information from a range of external and internal sources to develop intelligence that informs our processes for identifying, assessing, prioritising, and responding to safety and security risks in the civil aviation system. We rely in large part upon high-quality reporting by participants of occurrences. We seek to improve the quality and level of safety information reported to us by promoting and encouraging full, accurate, and timely notification of occurrences.

We aim to build a comprehensive safety and security risk picture of the overall system and of the entities we regulate. We take a systems approach when assessing risks and deploying resources to enhance performance. We also identify and recognise the areas of the system that are working well and adjust our approach accordingly. In short, we rely on data and information to provide intelligence that informs the formulation of our strategic and operational policies and plans, and that consequently enables us to achieve our safety and security goals.

Our core safety regulatory functions

Engagement:

We engage operationally and strategically with participants and other external stakeholders to deliver maximum regulatory benefit.

Information and education

- We provide and foster information, advice, and education to assist the aviation community, together with passengers, to operate safely and securely.

Certification and licensing

- We provide written assurance (a certificate, licence, or other approval) that the organisation, individual, aircraft, or product in question meets the specific requirements of the civil aviation rules that apply.

Monitoring

- We plan and conduct activities to provide assurance that current certificates and licences remain valid; that relevant legislation is otherwise being met; and that aviation risks within the system are being identified and managed.

Investigation

- We examine accidents, incidents, and other occurrences to ascertain what happened and why, and to determine appropriate responses, including actions to share lessons learned and prevent recurrences.

Administrative and judicial action

- We use a range of administrative and judicial actions to obtain compliance, to address risk, to change behaviour, and to impose or seek penalties.

Delivering world-class aviation security for Aotearoa New Zealanders

Aviation security in Aotearoa New Zealand and globally is more dynamic than ever before. Intelligence indicates that aviation's attractiveness as a terrorist target will not change in a post

COVID-19 world. It is important that our aviation security system is positioned to anticipate, proactively adapt and respond to this ever-changing environment. Doing so will ensure the safety and security of travellers and the wider public and to support a functional, efficient and resilient aviation sector.

As an operational security regulation function of the Authority, AvSec is the provider of aviation security services at Aotearoa New Zealand's six security-designated airports.² AvSec's functions and activities are described in Figure 2.

Aotearoa New Zealand has a single national provider of aviation security services (like the Transport Security Administration (TSA) in the United States). Under the current Act (and as proposed in the Bill currently in the House) the provision of aviation security services is contestable, however successive governments have exercised a provision in the Act enabling the Minister of Transport to Gazette a Notice specifying that only AvSec may provide security services.

AvSec is required to hold an aviation document in accordance with the Rules. This is issued by the Director through independent powers. The Director has regulatory oversight of AvSec's operations. Various reviews since 2008 have proposed that these arrangements create potential conflicts of interest at both a Board and Director and Chief Executive level.

The Civil Aviation Bill will address this issue by removing the requirement for AvSec to hold an aviation document. It is intended that AvSec will continue to be the sole provider of aviation security services.

Avsec's Horizon 2030

In 21/22 AvSec finalised Horizon 2030, which sets out a strategic plan for AvSec to deliver effective and efficient aviation security, that's trusted, professional and responsive.

Horizon 2030 will help ensure that our security services are strategically aligned with the priorities of our key aviation and transport partners while also meeting our domestic and international security obligations.

AvSec has had increased public visibility and scrutiny since the pandemic began but has continued to build strong public trust. AvSec scored in the top ten (7th) for overall reputation out of 58 agencies in the 2022 Kantar Public Sector Reputation Index, and within that scored 4th for 'trust'.

Before the pandemic the Authority expected to screen between 11 million and 15 million passengers. The impact of COVID-19 restrictions on travel saw these screening numbers drop to between 5 and 6 million passengers. We expect these numbers to trend towards pre-COVID levels as restrictions ease.

AvSec aims to process all passengers within 10 minutes of them entering the security queue.

2 Auckland, Wellington, Christchurch, Dunedin, Invercargill and Queenstown Airports

FIGURE 2: AVSEC'S FUNCTIONS AND ACTIVITIES



Screening of passengers and crew

Checking passengers and crew for explosives, weapons, dangerous goods and other prohibited items.



Screening of baggage

Including checked-in stowed baggage and cabin baggage at security-designated airports for all international flights and domestic flights larger than 90 seats.



Explosive detection dogs

Checking aircraft, cabin and stowed baggage, unattended or suspicious items, terminal facilities, lounges, VIP events, cargo, carparks, etc.



Searches

- Passengers
- Crew
- Cargo
- Baggage
- Aircraft
- Airport workers
- Airport and navigation facilities
- Vehicles



Screening of bulk and duty-free goods

Goods entering sterile areas at security-designated airports.



Screening of non-passengers (airport workers)

Checking for weapons, explosives and other prohibited items.



Engagement, research and staying informed and current

- Reviewing, inquiring and staying abreast of aviation security techniques, systems, processes, practises, procedures, devices and technology.
- Working with domestic and international aviation security and border agencies and industry bodies.



Providing security services to NZ Police

Supporting Aotearoa New Zealand Police in their functions and duties (e.g. bomb threat call-outs, route and vehicle clearances, behavioural detection).



Security patrols

Airport facilities including:

- Terminal buildings
- Navigation facilities
- Gate lounges
- Check-in counters
- Airside and tarmac
- Carparking
- Airport perimeters
- Baggage halls



Co-operating with police, crown agencies and airport operators

For the purpose of supporting the delivery of aviation security services and achieving greater efficiencies and joint agency outcomes



Maritime security response

Maintaining preparedness to provide security to maritime sector in response to a security threat



Behavioural detection

Observing and analysing peoples' behaviour at airports to identify crimes against aviation (Currently at Auckland Airport only).



Operating the airport identity card system



Collaborating

Collaborating with international bodies and agencies (such as TSA, CATSA) to maintain alignment to international standards, mutually recognise and support technological advances, and share expertise.

Responding to events and building a resilient and secure aviation system

Over the past few years, the Authority has responded quickly to significant threats to the safety and security of Aotearoa New Zealanders, particularly in the context of the impacts of COVID-19. With the changing nature of threats, it is important that the Authority contributes to building the resilience of the transport system and is prepared to respond to events.

We play an active role when MoT's Transport Response Team (TRT) is stood up to respond to events. We also take part in All-of-Government exercises to test planning arrangements for major terrorist incidents and contribute to providing an assurance that major security operations will be effective.

Our involvement in exercises such as the All-of-Government GUARDIAN and RESOLUTION and the subsequent integrated planning for APEC 2021 provide a valuable way to test our preparedness to respond from a service delivery and regulatory perspective and contribute to building a more resilient transport system.

Following the 15 March 2019 Christchurch terror attacks, the Authority responded rapidly to ensure the safety and security of the traveling public. The Director instructed AvSec to undertake security screening for aircraft departing Christchurch airport with more than 30 passenger seats. This was a prudent risk management response to Aotearoa New Zealand's heightened national terrorism threat level and to keep the travelling public safe and secure. This new level of screening was implemented within 7.5 hours.



AvSec are continuing to work towards what contingency capabilities that it may require in the future to meet these and other security threats it may be asked to help mitigate.

AvSec have also supported other initiatives across All of Government. Key activities have been:

- Assisting other authorities during the COVID 19 Protests at Parliament early 2022, including being involved in the clean-up in the aftermath
- Providing Security Services to Government House, across a 24/7 period and for key events.
- Assisting Parliamentary Services with security screening, including undertaking the x-ray training requirements of new staff.
- Being a key associate member of the Border Executive Board around the recovery of Aviation and future evolution of NZ Borders
- Part of the integrated planning process for APEC 2021

Over recent years, the Authority has also played a significant role in the national response to natural disasters; including the Whakaari/White Island volcanic eruption in December 2019.

Following the Whakaari/White Island eruption, the Authority played a critical role in the national response by putting an airspace restriction in place immediately. We have also played an important support role in the ongoing Worksafe investigation of the event. We are now working with Whakaari/White Island airspace operators to seek assurances that their operations can commence safely should the island be reopened.

Cyber-security

With continued advances in technology and the growing levels of complexity in aviation systems, the safety, security and resilience of the global aviation system is becoming increasingly reliant on effective cyber-security controls. The need for effective cyber-security controls is common across a wide range of sectors and is by no means unique to aviation.

There are no mandatory requirements or controls that aviation organisations must adopt from either ICAO or the Aotearoa New Zealand Government in relation to cyber-security. We are considering what might be appropriate measures that could be implemented and will engage with MoT and the security community once our analysis has progressed.

Our ongoing response to the impacts of COVID-19 must acknowledge that the aviation sector will likely look very different over the coming years.

The impacts of COVID-19 continue to challenge the civil aviation landscape

The global COVID-19 pandemic quickly recast the global aviation sector as countries shut borders and demand for air travel largely collapsed. This created a range of impacts as operators, both international and domestic, swiftly responded to changes. Large parts of the aviation sector were put in a freeze resulting with consequential changes.

These changes included large scale lay-offs and furloughing of staff, across ground crew, cabin crew, back office staff, instructors, grounding of fleets, deferring maintenance, and critically some operators within Aotearoa New Zealand seeking to transition their businesses to new ventures.

For context, in 2020 domestic air transport activity declined by an estimated 27 percent, and by 2021 international air transport activity had declined by 60 percent.

The Authority played a crucial role in the national response to COVID-19, initially by providing the assistance of Aviation Security Officers (ASOs) to support Police during the initial lockdown period.³ ASOs were then deployed to support the All-of-Government COVID-19 response at managed isolation and quarantine (MIQ) facilities across the country. Our assistance in the MIQ space ends 30 June 2022.

³ Under section 80 (ea) of the Act, Avsec can provide security support services to the Police when requested by the Commissioner of Police

ASOs also assisted Ministry of Health officials with interviewing arriving passengers going into isolation and developing and maintaining a data management system to support these activities. This work has now been moved to the Ministry of Business, Innovation and Employment (MBIE).

From a regulatory perspective, the impact of COVID-19 on the Sector has required the ongoing need for an agile and proportionate regulatory response from CAA, both to ease operator pressures and to manage the safety risks within the aviation system.

Initially this response included things like:

- Providing emergency directives and Rule exemptions to provide relief without compromising safety
- Extensions to license and rating currency requirements for aircrew and air traffic service personnel
- Extending Safety Management System (SMS) implementation dates from 1 February 2021 to 1 February 2022
- Ensuring the continued airworthiness of Aotearoa New Zealand’s aircraft fleet by issuing a Continuing Airworthiness Notice to allow for essential maintenance to be carried out during Alert Level 4.

Redaction made in accordance with section 9(2)(f)(iv) of the Official Information Act



While being managed and worked through positively, those risks are anticipated to remain in the system for some time.

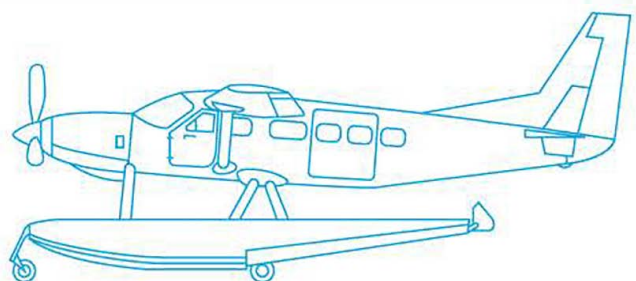
This includes skill fade, currency and availability of pilots, supply chain restrictions impacting availability of aircraft parts, commercial pressures to diversify operations and trim operating costs to remain viable.

Currently, the global transition beyond the response to COVID-19 offers the first genuine opportunity of a recovery for the aviation sector. We are now seeing positive signs that the aviation sector is starting to recover. This includes a very recent return to an estimated 90% of pre-COVID levels of domestic transport activity. A global 30% increase in international aviation activity bodes well for an increase in tourism and associated aviation activity.

However, the recovery of the sector is uneven and difficult to predict – for example an increase in commercial passenger volume numbers is occurring quicker than forecasted. This is a challenge for aviation organisation participants, airports and associated infrastructure that must re-expand to meet this rising activity. Recruiting and training of aircrew, airport staff, security personnel is and will continue to be a challenge for some time.

In response we are actively monitoring and positively engaging with operators as they re-engage in this activity to meet rising levels of volume and demand.

The challenge now is for the Authority to maintain a current and sophisticated understanding of a constantly evolving aviation environment, in a broader global context of uncertainty, and responding appropriately. As a result of this, the impact of the pandemic has not in any way reduced our regulatory activity – on the contrary, it has made the risk landscape of the Sector much more complex.





The resources and tools we need to be effective

It is important the Authority is sufficiently resourced to enable it to deliver effective and efficient aviation safety and security regulatory activities, while keeping pace with the rapidly changing global and domestic aviation system.

We are heavily reliant on third-party funding

The Authority is normally funded almost entirely by a mixture of fees, levies and charges collected from participants in the aviation sector, including airlines, passengers, pilots, and others. These funding streams are reviewed every three years, or as required in response to changes in passenger volumes and our operating environment.

The Authority's last funding review was due to have been completed in 2020. However, this was suspended by the Government as part of the COVID-19 Aviation Relief Package, which included a 12-month freeze on all fee, charge and levies increases on the aviation sector.

Our revenue has dropped significantly due to COVID-19

The largest portion of the Authority's funding comes from a per-passenger safety and security levy on domestic and international airlines. Given the sharp decline in international (and to a lesser extent, domestic) airline activity, the Authority faced significant and unavoidable revenue pressures.

At the direction of the MoT, we exhausted all of our capital reserves and cash assets. Our funding is currently reliant on a Cabinet approved liquidity facility which bridges the gap between the Authority's operating expenditure, and what the Authority is currently recovering from the industry as a result of ongoing COVID-19 impacts on aviation activity levels.

section 9(2)(f)(iv)

Redactions made in accordance with section 9(2)(f)(iv) of the Official Information Act

Authority Funding Review

The Authority is well underway in preparing for a comprehensive funding review to commence in 2022/23.

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Redactions made in accordance with section 9(2)(f)(iv) of the Official Information Act

EMPIC-EAP

The Authority is replacing its core aviation regulatory platform the Aviation Safety Management System (ASMS).

ASMS is outdated, unsupported, and can no longer be enhanced to meet the Authority’s current and future needs, as the technology behind ASMS is a bespoke in-house development and the application is written in an old language. It poses significant business continuity and critical aviation safety risks for the Authority. The core system was last updated in 2003.

The Safety Regulatory System Programme initiated in late 2021 to replace ASMS with EMPIC-EAP. EMPIC-EAP is a German software-as-a-service-solution that will be cloud-hosted. EMPIC-EAP is in use by more than 25 other international aviation agencies.

EMPIC-EAP will allow us to perform all core Authority and obligations, including:

- Medical certification of pilots and air traffic controllers.
- Technical areas including aircraft type certification and registration.
- Personnel licensing of flight crew, air traffic controllers and maintenance personnel.
- Organisational approval of air operators, air traffic management, aeronautical service providers, maintenance companies and flight schools.
- Surveillance activities and risk-based oversight.

Cabinet approved funding of \$16.4M in May 2021 through a multi-year capital appropriation for the core EMPIC solution. Elements of the Safety Regulatory System Programme will need to be delivered from baseline. The project will continue in phases until late 2024.

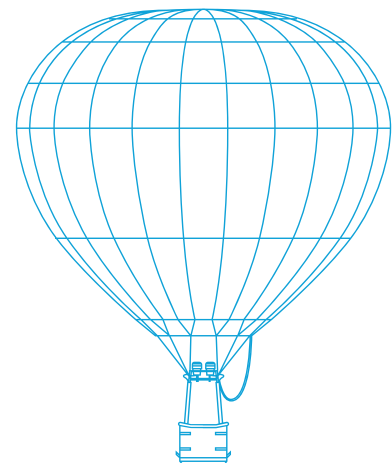
AvSec technology investments

Given global evolving aviation security risks and threats, there is a need for AvSec to focus on maintaining business efficiency without compromising security effectiveness.

AvSec has a large screening technology modernisation programme underway, which commenced 5-6 years ago. This includes investing in, and rolling out, new technology such as Advanced Imaging Technology (AIT) body scanners and computed tomography (CT) x-ray scanners, and automated smart lanes. The introduction of AIT and CT technologies while primarily to meet increased requirements to improve security placed on AvSec by the Director of Civil Aviation, and also serve to help with improved passenger facilitation and operational efficiencies.

This modernization programme is funded from a multi-year capital appropriation approved in Budget 21 which included \$88.8 million for aviation security infrastructure.

AvSec has also been investing in and developing its capabilities in the areas of Behavioural Detection (currently occurring at Auckland Airport, though due to be expanded) and non-passenger screening activities. The former enables indicators associated with a potential threat or unlawful activity to be identified, while the latter refers to the screening of airport employees and other individuals.



Being responsible stewards of our regulatory system

The Authority plays a critical role as steward of the aviation regulatory system. We progress quality policy and regulatory thinking to ensure the foundations are in place to design, deliver and implement effective aviation policy and continually improve our regulatory system.

We ensure potential issues with our regulatory system are thoroughly assessed. Our regulatory stewardship role has become particularly important during COVID-19 as we look to ensure that the sector does not face any unnecessary regulatory burden while ensuring that new and emerging safety risks can be appropriately addressed.

Keeping our Civil Aviation Rules up to date

The Rules establish the minimum regulatory safety standards that participants must demonstrate to enter and operate within the Aotearoa New Zealand civil aviation system. The Rules are divided into Parts and each Part contains a series of individual rules which relate to a particular aviation activity. The Rules belong to the Minister of Transport.

The Act empowers the Minister of Transport to make the Rules. We provide the policy and legal drafting for the development and amendment of the Rules, with funding from MoT.

Some Rules are overly prescriptive and have become out of date. This can create both aviation safety and legal risks, and also prevents us from being a flexible and responsive regulator – particularly within a rapidly changing environment.

We are finding the right balance between prescriptive and performance-based Rules. The increasing use of CAA Notices or other regulatory interventions enable more technical or administrative requirements that need more frequent updating to be made by the Director. This will support us to be more responsive and flexible to emerging technical issues and to rely less on the Rules.

We also have processes in place to enable people (staff, the sector and the public) to raise issues about the Rules. We assess all of these issues, as well as considering the most appropriate regulatory

intervention to use in the situation – such as communication, guidance or a Rule change. In this way, we are constantly reviewing and updating the Rules.

However, funding to support rules drafting has remained stagnant for a number of years and is a constraint on our ability to deliver more Rule projects. In addition, the downstream capacity for enacting Rule changes is also limited by the capacity of the Authority's Rule Drafting capacity (1 FTE) and of the MoT's Rules programme.

There are presently over 70 open and pending issue assessments in the workplan and around 25 of those would be considered medium or high priority. Prioritisation processes are in place ensure that risks are managed as effectively as possible within the current resourcing constraints.

Key Rule projects that are currently being progressed are outlined in Appendix 1.

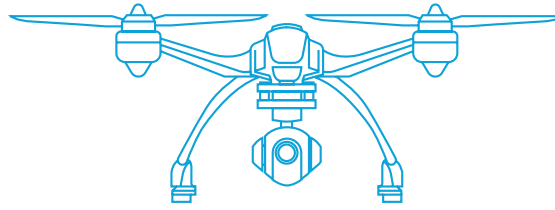
Civil Aviation Bill

The Act governs the civil aviation system in Aotearoa New Zealand and sets the overall framework for aviation safety, security and economic regulation in Aotearoa New Zealand.

The Act has been amended several times, but not substantially revised since it was enacted in 1990. Over the last 30 years, both the aviation sector and the regulatory environment have significantly changed.

The Civil Aviation Bill (the Bill) reflects recommendations from a 2014 review of the Act and the Airport Authorities Act 1966. It will replace both Acts with a single Act.

It presents an opportunity to fully revise our primary legislation and legal framework and deliver a modern and futureproofed Act for the next 30 or more years. This work is being led by MoT.



The Authority has been significantly involved in the policy decisions and drafting of the Bill. There are several key changes being introduced through the Bill.

Some examples include:

- Protecting some safety information (such as incident reports and information from flight data recorders) from use in prosecutions in order to encourage open and honest reporting.
- Improved drug and alcohol management, including new powers for the Director to undertake non-notified drug and alcohol testing, and a requirement for the Director to approve all drug and alcohol management plans.
- Better integration of unmanned aircraft (drones) into the legislative framework. [REDACTED]
- [REDACTED]
- [REDACTED]
- Changing AvSec's institutional arrangements by removing its need to hold a certificate, and thereby removing potential conflicts of interest and changing the nature of the CAA's regulatory oversight.
- The introduction of national security considerations in granting aviation documents.
- A requirement to publish a regulatory strategy.
- The introduction of Transport Instruments (a tertiary form of legislation made by the Director) to enable a more responsive and agile legal framework.
- Following the Select Committee's consideration, the reported back Bill also includes a new function to provide for independent review of regulatory decisions made by the Director of Civil Aviation (the Director).

Redactions made in accordance with section 9(2)(f)(iv) of the Official Information Act

The Bill is currently awaiting its second reading. Once passed, there is an 18-month window before the new Act commences to allow for implementation. Implementation will be a large task affecting many different areas of the Authority. Although resourcing this project has been accounted for in the SPE budget, it will have a significant impact on our limited, specialist resources. We are currently in discussions with MoT about the possibility of extending the implementation window to 24 months.

Performance and risk-based regulation enable us to target specific risks in the aviation system more efficiently.

Designing the regulatory system to support effective regulation

In recent years, the Authority's regulatory approach has been undergoing a shift from audits and inspections focused on compliance and individual cases, to a mix of performance and risk-based approaches to regulation, sophisticated risk management, and other regulatory tools. This is work in progress.

- **Risk-based** regulation means that when risk is assessed, consideration is given to factors such as attitudes and behaviours, skills, business systems and resources. The Authority uses an intelligence-led approach towards risk-based regulation. This means assessment of risk is based on information gathered from audits, investigations and incident reporting. We act according to the data we receive and hold (intelligence-led), and also according to the level of risk assessed for a sector, organisation, person or aircraft (risk-based). This approach allows us to utilise data and information to inform and target our interventions.
- **Performance-based** regulation focuses on outcomes rather than applying prescriptive standards. It establishes performance objectives, without specifically detailing the means of compliance required to achieve the objectives. This provides the sector and the Authority with flexibility to adapt to meet the challenges of a rapidly changing sector, new and emerging technologies, and a changing operating environment.

Performance and risk-based regulation enables us to target specific risks in the aviation system more efficiently. An outcome of targeted intervention is that the number of interventions may decline. For example, more time might be spent monitoring and inspecting those operations that present as high risk, rather than monitoring and inspecting all operations to determine their compliance with the Rules. By being more targeted to those operations that pose unacceptable safety risks, we are better able to influence behaviours in the aviation sector.

New Southern Sky

The New Southern Sky (NSS) is a programme to modernise Aotearoa New Zealand's airspace and air navigation systems.

It is led by the Authority in partnership with MoT and Airways Aotearoa New Zealand. NSS was approved by Cabinet and commenced in 2014.

The aim of NSS is to implement the Cabinet-directed National Airspace and Air Navigation Plan through a coordinated and collaborative approach across the aviation sector to deliver safety, social, economic and environmental benefits.

NSS is a benefits-led programme that spans a decade. The major NSS workstreams currently progressing to regulatory changes are:

- Automatic Dependent Surveillance – Broadcast (ADS-B):

ADS-B is a new type of aircraft surveillance technology that is more accurate and provides wider surveillance coverage. It has a wide range of safety and efficiency benefits for an individual operator and the wider aviation system.

- Performance Based Navigation (PBN):

The Aotearoa New Zealand aviation system is transitioning from traditional navigation using ground-based beacons to PBN, which is a navigation system that is primarily reliant on Global Navigation Satellite Systems (GNSS) to achieve accurate positioning. PBN enables a range of benefits through the greater degree of navigational precision it provides.

An NSS programme cost benefit analysis released in 2018, which used actual data from the air traffic system, confirmed that significant benefits were being delivered. Post COVID-19 impacts include a review and rescheduling of elements of the surveillance and air traffic management systems. Given the focus on domestic and Trans-Tasman activities, it is anticipated that the benefits of the NSS programme will likely be retained despite the impact of COVID-19.

More information about the environmental benefits of NSS is outlined on page 32.

Emerging Aviation Technologies

The spectrum of emerging aviation technologies is incredibly varied and extends beyond unmanned aircraft (drones) and aerospace activities. It also includes:

- low emission or zero emission propulsion systems
- Sustainable fuels
- new systems for traffic management
- emerging weather forecasting demands and solutions
- cyber and physical security
- radically new training requirements
- system-wide infrastructure
- digitally driven ecosystems and,
- novel flying platforms (currently 600 designs in play).

Our approach

Regulating emerging aviation technologies has been, and continues to be, a challenge for the Authority. Sector demands and advancements in technology are moving much faster than the Authority's resourcing model and rules development processes can enable a response.

Within these constraints, our approach is based the development of a specific emerging technology programme that will focus on a number of dimensions to assist industry, and assist our certification people and processes and maintain safety as new aviation products and activities emerge:

- Guidance- Provide guidance to the sector and internally, through better application systems, processes and guidelines, to support stakeholders full understanding of rule requirements and certification pathways
- System-based approach- Use systems thinking to ensure that analysis enables appropriate decision making and linkages across the organisation and outside
- Collaboration- Proactively engage with stakeholders, and work collaboratively to give effect to intelligence-led, risk-based regulation of emerging technologies, and manage the expectations of all parties (innovators and regulators alike)
- Engagement- Facilitate and, where appropriate, lead the CAA's domestic and international engagement on emerging technology information sharing and expertise exchange.

- International alignment – Where practical and appropriate, align with internationally accepted practices that support the safe integration of emerging aviation technology. Where the opportunity arises, we will influence those practices where it aligns with Aotearoa New Zealand’s national interests
- Change and Influence – Identify opportunities for process and other changes through whatever available means that will increase the effectiveness of emerging technologies regulatory engagement and output.

These activities are in addition to core regulatory activity that supports the use and development of emerging aviation technologies which includes certification, monitoring and inspection, and policy development. An example of this is Rule Part 102, which allows operators to apply for certification to operate outside the limits which are set for non-certificated drone users. This allows the Authority to take a flexible approach to the certification of unique operations, provided an acceptable level of safety is achieved. This flexibility is important as it allows the Authority to better respond to different technologies and operations and allows the sector to continue to develop innovative approaches, whilst managing the risk.

Cross-agency work

The Authority is a key partner in cross-agency programmes of work to enable emerging aviation technologies to be integrated into the aviation and transport system. This includes

- Regulatory Updates:

The MoT-led work to assess the future regulatory settings for drones, including potential Rule changes and improving education and safety promotion

The policy objectives of this work are to: maintain appropriate standards of safety and security; enable drone innovation and development; lay the early groundwork for future drone integration; and to foster social licence, including managing public concerns about drones.

- Testing and Trialling:

MBIE’s Airspace Integration Trials-led Programme (AITP) aims to facilitate the safe testing, development, and market validation of advanced drones, and accelerate their integration into Aotearoa New Zealand’s aviation system by leveraging the potential for innovation under the Rules. AITP partners will test and demonstrate unmanned aircraft for a range of purposes including passenger transport, cargo delivery, agricultural services, and hazard management and monitoring services.

Both programmes of work are aligned with the Government’s strategy to unlock the potential economic benefits of drones as outlined in the document Taking

Flight: An Aviation System for the Automated Age. Core to all this work is maintaining and improving levels of aviation safety and security.

This work is overseen by the cross-agency Unmanned Aircraft (UA) Leadership Group with senior representatives from the Authority, MoT, MBIE and Airways. The UA Integration Leadership Group provides strategic governance, guidance, and oversight of the work programme to achieve the safe integration of drones into Aotearoa New Zealand’s airspace

- Aerospace Strategy

The Authority, alongside MoT, is supporting the development and implementation of the Aerospace Strategy, led by MBIE. The Aerospace Strategy is intended to drive the emerging aerospace sector towards an ambitious 2030 vision, identify needs and opportunities in the sector for economic development and innovation, and present significant growth opportunities from an economic perspective.

section 9(2)(g)(i)

Redactions made in accordance with section 9(2)(g)(i) of the Official Information Act

Contributing to a lower emissions transport system

While MoT takes the lead on most aviation environmental matters, the Authority can play a role to support environmental outcomes. And as a result, we are adapting our ways of working to respond to the challenges associated with climate change.

Environmental benefits of New Southern Sky

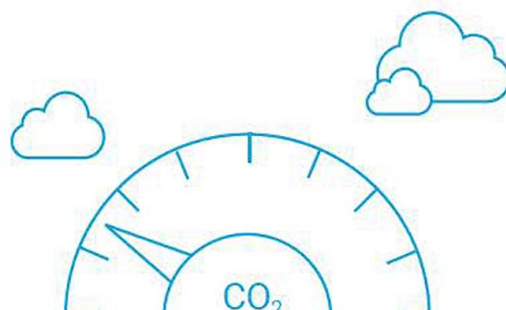
In October 2016 at the 39th ICAO Assembly in Montréal, Member States delivered a historic agreement on a new global market-based measure (GMBM) to offset CO₂ emissions from international flights and a comprehensive road map for the sustainable future of international aviation. The Authority's New Southern Sky (NSS) programme aims to contribute to this agreement.

As part of the NSS programme, various initiatives have been implemented to help offset CO₂ emissions in the aviation space. This includes the introduction of Performance Based Navigation (PBN) into the Aotearoa New Zealand aviation system. In Aotearoa New Zealand, most routes between cities are already relatively direct, however the implementation of PBN is providing additional benefits by designing shorter and more efficient approaches to landing. These shorter approaches can reduce flight time, resulting in savings of aircraft direct operating costs, fuel consumption, fuel costs, CO₂ emissions, and passenger time.

Since the implementation and trials of key programmes and initiatives, NSS has already seen various environmental benefits that support the GMBM in Aotearoa New Zealand, including:

- Avoiding CO₂ emissions by approximately 12.3m kg per annum through various initiatives from NSS.
- Avoiding approximately 2.3m kg of additional fuel burn per annum through Airport Collaborative Decision Making (A-CDM) implementation.
- Avoiding approximately 7.5m kg of CO₂ emissions per annum through A-CDM implementation.
- Avoiding approximately 136,000 kg of additional fuel burn through the introduction of PBN (based upon a trial at Christchurch and Wellington airports).
- Avoiding approximately 414,000 kg of CO₂ emissions through the introduction of PBN (based upon a trial at Christchurch and Wellington airports).

This will also contribute to the government's aspirations outlined in the 2022 Emissions Reduction Plan.



Being responsive to new 'greener' technology

A key outcome for transport is to become increasingly environmentally sustainable. Key to achieving this outcome is transitioning to net zero carbon emissions, and maintaining biodiversity, water quality and importantly for aviation – air quality. Reducing the impact of aviation emissions on the environment is now at the forefront of many aircraft designers and new technologies are constantly challenging the status quo. The use of electric aircraft will increasingly become a feature of our system in response to this.

To ensure that we can respond proactively to this new and greener technology, our regulatory system will need updating. For example, our maintenance and training rules will likely need amending to appropriately address the risk around electric engines. When resource allows, we plan to undertake an assessment of our regulatory framework so that it does not present any unnecessary barriers to the uptake of new and emerging 'green' technologies.

Leading by example

The Authority is committed to supporting our international obligations and participating in the Carbon Neutral Government Programme (CNGP) to accelerate the reduction of emissions within the public sector.

The Authority intends to commence work in FY2023 to join businesses and communities already leading the way to reduce their emissions as Aotearoa | Aotearoa New Zealand transition to a low-emissions economy and achieve its target of net zero carbon by 2050.

Redaction made in accordance with section 9(2)(f)(iv) of the Official Information Act

[Redacted]

in the recent past the fiscal impacts of the pandemic has materially constrained the Authority's ability to invest in making a meaningful and demonstratable change in how we operate on a day-to-day basis in respect of its carbon footprint.

The Authority's carbon footprint is large due to the vehicles we drive, the buildings we occupy, the power we consume, and the flights we take to perform our safety and security regulatory activities.

Redaction made in accordance section 9(2)(f)(iv) of the Official Information Act

As funding allows, the Authority make investments to reduce its carbon footprint meaningful and in a demonstratable way. [Redacted]

[Redacted] To date, the Authority has already started its net zero carbon journey by starting to replace (where practicable) all light vehicles with battery electric vehicles when they are next due for replacement.



The equivalent of

64

A320 flights from AKL – CHC saved annually

due to the implementation of PBN



The equivalent of

141

A320 flights from WLG – CHC saved annually

due to the implementation of PBN



in annual efficiency savings

through reduced fuel burn at Auckland and Wellington airports due to the implementation of A-CDM

Building strong, constructive relationships

It is vital that we have strong working relationships with our stakeholders across the aviation system and the wider transport sector so we can achieve our objectives.

Our strong working relationships are founded on mutual respect, integrity, and good communication, with a mutual understanding of our role, responsibilities and accountabilities. Our behaviours and the way we work with our stakeholders and participants build the foundation to deliver a safer and more secure aviation system.

What do we mean by ‘Stakeholders’?

Stakeholders are organisations and individuals that we must work with to achieve our ultimate goal of ‘safe and secure skies to help Aotearoa New Zealand fly’.

The Authority works with a wide range of stakeholders, including:

- Sector groups: groups and individuals who engage with the Authority on various issues and advocate for their constituents (including the Aviation Community Advisory Group (ACAG) which has a policy mandate).
- Central government agencies: including (but not limited to) the Minister of Transport and MoT, MBIE, MFAT, the Treasury, Maritime Aotearoa New Zealand (MNZ), the Aotearoa New Zealand Transport Agency (NZTA), Department of Prime Minister and Cabinet (DPMC), TAIC, Aotearoa New Zealand Police and border agencies (such as Customs, Immigration, and the Ministry of Primary Industries).
- International groups: including ICAO, the International Air Transport Association (IATA), the European Aviation Safety Agency (EASA) and other national aviation regulators.
- Participants: those who hold an aviation document and operate within the Aotearoa New Zealand civil aviation system.

By understanding each of our stakeholder groups, we are able to tailor our engagement with each audience on every activity by level of influence, interest, impact, knowledge and value. This will ensure purposeful and meaningful dialogue on all important aviation issues.

Working across Government

MoT is a key stakeholder in the development of aviation safety and security policy. We work closely with them on projects such as the New Southern Sky (NSS) programme, and work to build the resilience of our aviation system and improve the regulatory framework (for example through the Rules and the Bill).

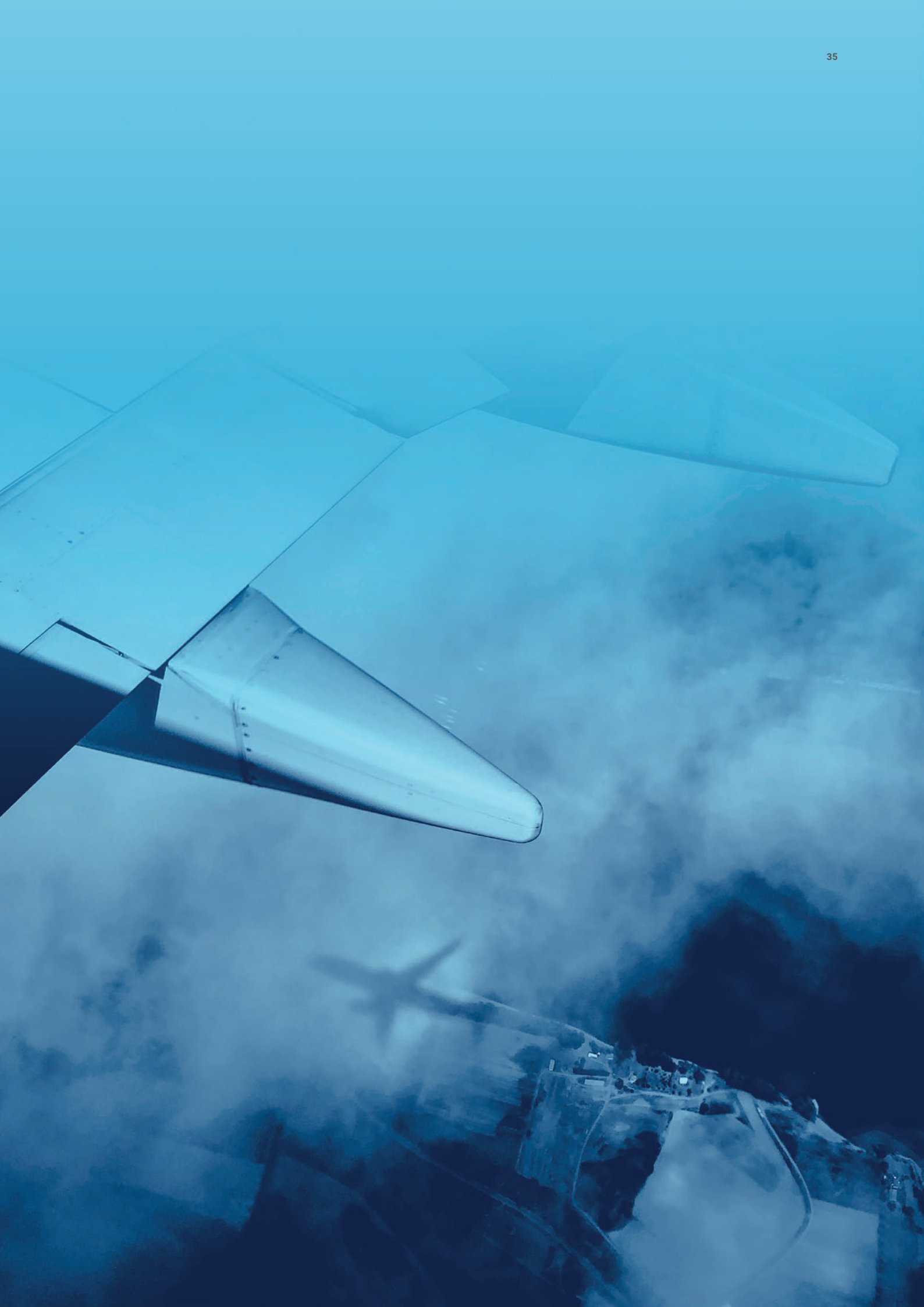
We have also worked closely over the past few years with a number of agencies to support the Government’s wider social and economic goals. This includes working with MoT and MBIE to think strategically about the integration of drones into our aviation and wider transport systems, and how we will support the drone industry to thrive.

Building future relationships and engaging with stakeholders

In the past, stakeholder engagement has been ad-hoc and often lacked co-ordination and a strategic approach. The need to improve stakeholder relationships and work more effectively with sector participants has been identified as a priority for the Authority.

To support the improvement of relationships with stakeholders and participants, the authority undertook a stakeholder survey reaching out to over 1900 participants and sector representatives across the aviation system, as well as contacting a range of sector stakeholders. Their feedback highlighted concerns that varied from complaints of poor conduct when carrying out regulatory functions through to poor communication and a lack of rationale following policy changes. Industry participants said they want a regulator that is enabling and engaging, with a shared goal of improving aviation safety outcomes. There was a clear view from all the stakeholders that in a post COVID-19 environment it is particularly important for the Authority and the sector to be collaborating and working together effectively.

In response, the Authority is developing a comprehensive Stakeholder Engagement Strategy and framework, which will support the Authority Leadership Team and regulatory units across the organisation to engage with stakeholders and participants in a more joined-up, consistent and effective manner.



Appendices

The following appendices provide both an overview and detailed information on the Authority, its operating environment and the civil aviation sector:

APPENDIX 1: KEY RULE PROJECTS AND MINISTERIAL ENGAGEMENT

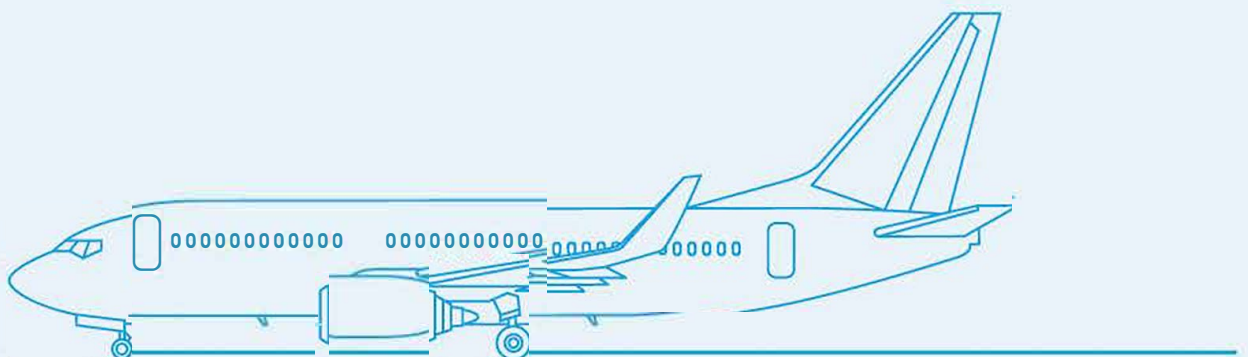
APPENDIX 2: 2020/21 FACTS AND FIGURES

APPENDIX 3: STAFF NUMBERS AND FUNDING SOURCES

APPENDIX 4: AVIATION SECTOR PROFILE

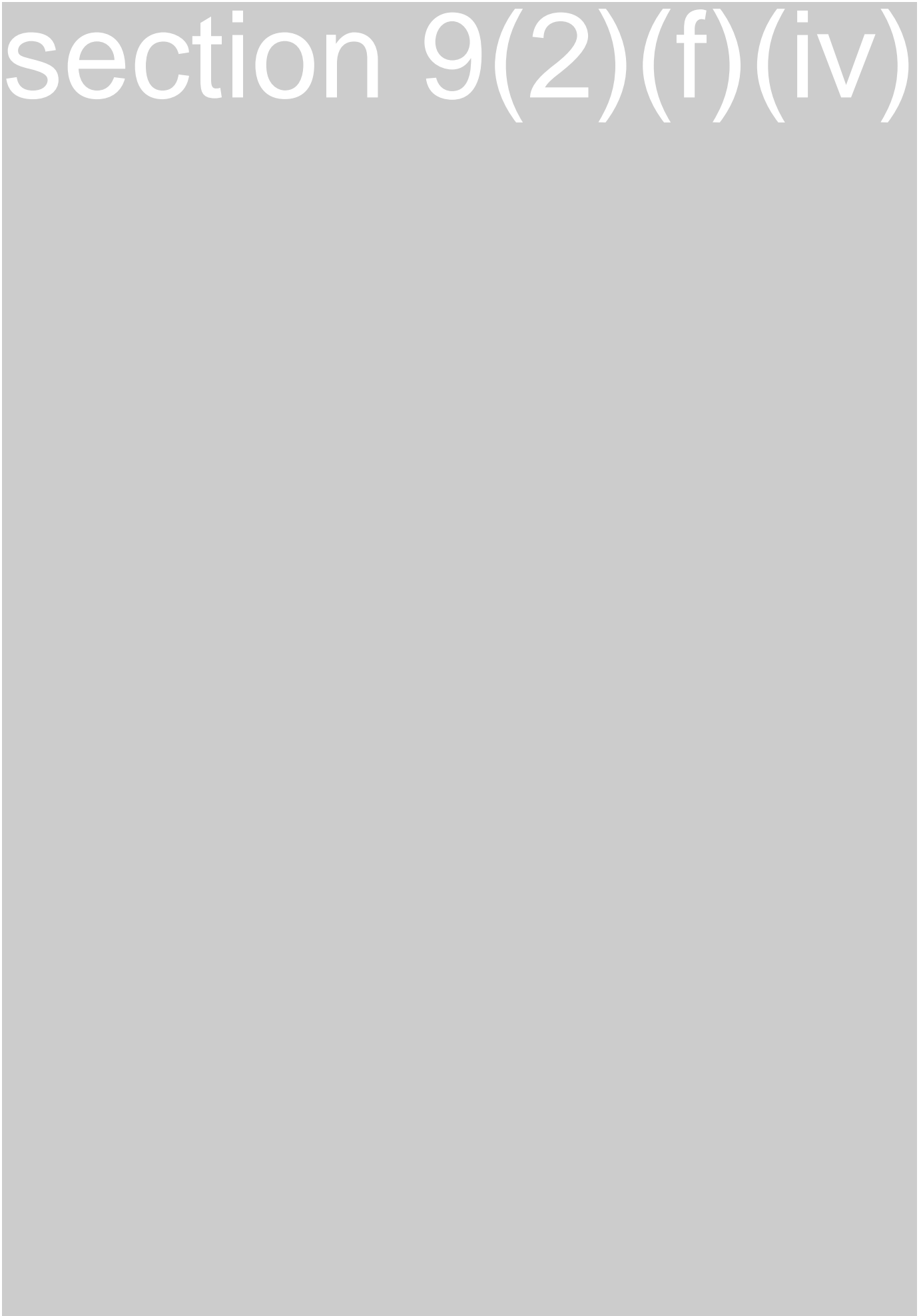
APPENDIX 5: KEY CONTACTS AND BOARD MEMBER PROFILES

APPENDIX 6: ORGANISATIONAL STRUCTURE



section 9(2)(f)(iv)

Redaction
made under
section 9(2)(f)
(iv) of the
Official
Information
Act



APPENDIX 2

2020/2021 Facts and figures



90

Certificates for operational organisations issued

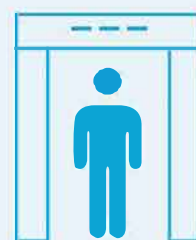
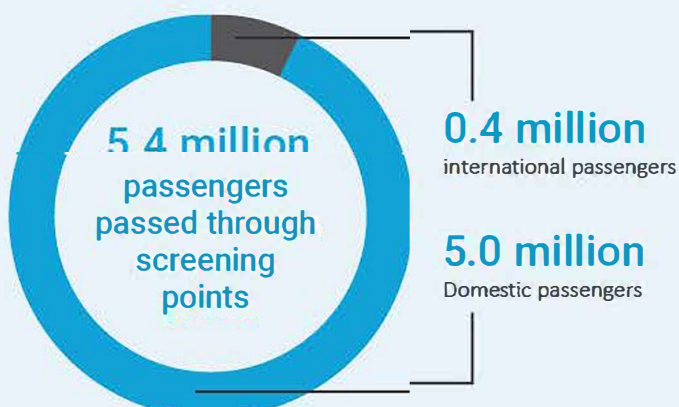


287

audits, inspections and spot checks performed under the Civil Aviation Act

6,805

Civil Aviation System Occurrences reviewed



96%

of passengers processed within 10 minutes of entering security screening queue



14,210,744
bags scanned

30

Explosive Detector Dogs operated



26,450
Airport Identity Cards issued



131,505
prohibited and dangerous items removed from the travelling public



Carried out
5,841
Licensing procedures



788
investigations conducted under the Civil Aviation Act

100%
of all system incidents/accidents investigated

APPENDIX 3

Staff numbers and funding sources

Staff

Regulatory function

The CAA 2021/2022 budget was prepared on a staff establishment of 308.8 full-time equivalent positions. Establishment numbers for 2022/23 will increase. Many staff are technical experts responsible for the certification and monitoring of aviation sector participants and have generally come from an aviation background rather than the public sector.

Security service

In 2021/2022 AvSec had a staff establishment of 1,321.9 FTE and the 2022/2023 budget is prepared on an average establishment of 1,395.7. Most are front-line service delivery staff, based in airports around the country, with a national office team based in Wellington.

Sustainable funding for civil aviation

The Authority has three primary sources of revenue:

- Aviation participant fees and charges – for licensing and certification
- Passenger levies and charges – for civil aviation regulatory functions and security screening
- Funding from the Crown – for policy advice, rules and standards development and the administration of the Health and Safety at Work Act 2015 designation for the CAA.

Authority funding sources:

As required by section 72B (3B) of the Civil Aviation Act 1990, the Authority maintains separate accounts for the performance of its two operating functions.

OUTPUT CLASS	FUNDED THROUGH
1. Policy and Regulatory Strategy <ul style="list-style-type: none"> • International relations and ICAO obligations • Ministerial servicing • Policy advice • System level design and intervention • Rules and Standards Development • Pacific support 	<ul style="list-style-type: none"> • Crown funding • Ministry of Transport contract revenue (rules development) and Ministry of Foreign Affairs and Trade (Pacific Security Fund activity) • Levies
2. Outreach	<ul style="list-style-type: none"> • Levies • Other revenue
3. Certification and Licensing	<ul style="list-style-type: none"> • Levies • Fees and charges • Other revenue
4. Surveillance and Investigation	<ul style="list-style-type: none"> • Crown funding • Levies • Fees and charges • Other revenue
5. Security Service Delivery <ul style="list-style-type: none"> • Screening activity • Audit performance; access control; and maritime security services 	<ul style="list-style-type: none"> • Contracted services • Passenger security levies • Crown funding – Maritime • Other revenue

REVENUE PERCENTAGE (PROSPECTIVE 2021/22)

	2022/2023 Budget		Estimated 2021/2022 Actuals		2020/2021 Actuals	
	Third Party Contribution	Crown Contribution	Third Party Contribution	Crown Contribution	Third Party Contribution	Crown Contribution
The Authority (CAA and Aviation Security Service combined)	53%	47%	29%	71%	37% (97.2% Pre- COVID-19)	63% (2.8% Pre- COVID-19)
The CAA (regulatory function)	56%	44%	43%	57%	53% (89.2% Pre- COVID-19)	47% (10.8% Pre- COVID-19)
The Aviation Security Service (Avsec)	51%	49%	25%	75%	31% (89.2% Pre- COVID-19)	69% (10.8% Pre- COVID-19)

APPENDIX 4

Aviation sector profile

Aviation in Aotearoa New Zealand is characterised by the high number and wide variety of operations considering the size of the country and its population. We have one of the highest rates of aircraft and pilot licences per capita in the world. The aviation sector is comprised of a variety of sub-sectors, each with unique characteristics and challenges, personnel, operators and various supporting infrastructure.

Aotearoa New Zealand's active aviation document holders (as at June 2021)

ORGANISATIONS	2021	2020	INDIVIDUALS	2021	2020
Australian AOC Operating with ANZA Privileges	4	4	Part 66 Aircraft Maintenance Engineer	3,034	3,008
Part 102 Unmanned Air Operator Certificate	133	128	Part 66 Certification of Inspection Authorisation	230	197
Part 109 Regulated Air Cargo Agent	69	70	Part 66 Certificate of Maintenance Approval	341	352
Part 115 Adventure Aviation Operator	23	25	Pilot licences	29,162 ⁴	28,619
Part 119 Air Operator	153	160	Air traffic and Flight service licences	1,223 ⁵	1,202
Part 129 Foreign Air Operator	58	57	Total	33,990	33,378
Part 137 Agricultural Aircraft Operator	108	105			
Part 139 Aerodrome Certification	28	29			
Part 140 Aviation Security Organisation	1	1			
Part 141 Training Organisation	43	44			
Part 145 Maintenance Organisation	50	52			
Part 146 Design Organisation	11	12			
Part 147 Maintenance Training Organisation	4	4			
Part 148 Manufacturing Organisation	11	13			
Part 149 Recreation Organisation	8	8			
Part 171 Telecommunication Service Organisation	1	1			
Part 172 Air Traffic Service Organisation	1	1			
Part 173 Instrument Flight Procedure	2	2			
Part 174 Meteorological Service Organisation	3	3			
Part 175 Information Service Organisation	2	2			
Part 19F Supply Organisation	24	23			
Part 92 Dangerous Goods Packaging	45	51			
Synthetic Training Device (Airlines)	8	8			
Synthetic Training Device (General Aviation)	51	40			
Total	841	843			



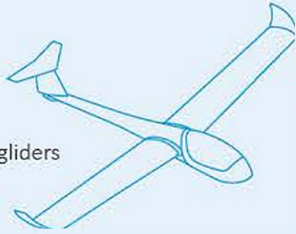
⁴ This includes 3524 with active class 1 medical certificates and 5102 with active class 2 medical certificates, including ATPL Aeroplane licence holders, 985 holding active class 1 medical certificates and 1150 holding active class 2 medical certificates

⁵ This includes 639 holding active class 3 medical certificates

Aircraft

3

amateur built gliders
2020 – 3

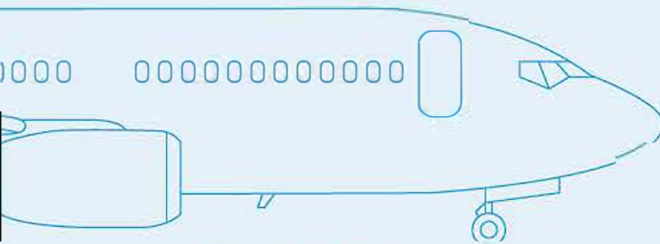
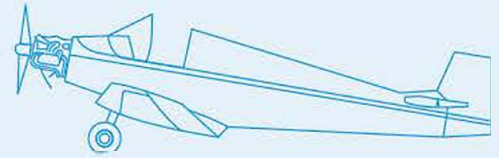


292

gliders
2020 – 290

311

amateur built aeroplanes
2020 – 307

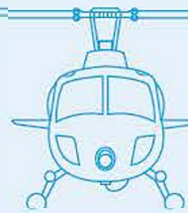


2,056

aeroplanes
2020 – 2,054

25

amateur built
helicopters
2020 – 26



886

helicopters
2020 – 888



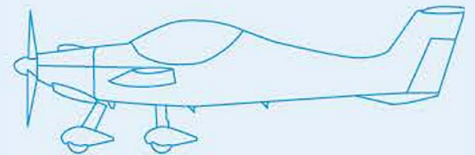
62

balloons
2020 – 59



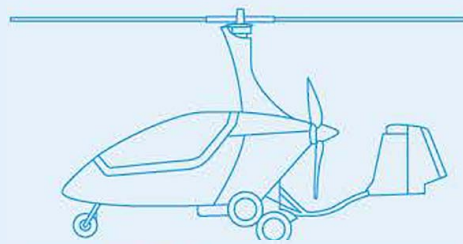
215

microlight class 1
2020 – 215



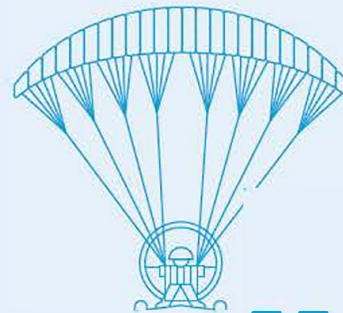
975

microlight class 2
2020 – 946



73

gyroplanes
2020 – 76



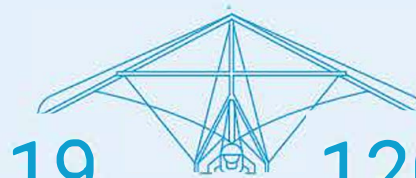
55

power gliders
2020 – 55



346

parachutes
2020 – 346



19

hang gliders
2020 – 19

120

para gliders
2020 – 122

Total

5,438

APPENDIX 5

Key contacts and Board member profiles

Authority Board Members

Chief Executive and Director of Civil Aviation

Keith Manch

keith.manch@caa.govt.nz

General Manager Aviation Security Service

Mark Wheeler

mark.wheeler@avsec.govt.nz

Board Chairman

Janice Fredric

Legislation provides for up to seven board members to be appointed. The Authority Board is currently made up of five independent non-executive members appointed by the Minister of Transport. The appointment of a sixth member is in the process of approval.

The Board has diverse capability and experience in governance across varied portfolios ranging from central and local government through to commercial operations. They are equally diverse in their skills and experience in business, in such disciplines as accounting, law and delivery of commercial performance.

Janice Fredric – Chairman

Janice was appointed as Chairman of the Board in December 2019.

Janice is an experienced Chair and professional director with 20 years governance experience. She has a broad portfolio of directorships with experience in commercial, Crown and not-for-profit sectors.

An experienced leader with strong commercial and financial acumen, Janice has governance experience as both a regulator and a regulated party. Janice has held senior executive positions in the finance and banking sectors and professional services both in Aotearoa New Zealand and internationally.

Steve Hazard – Deputy Chairman

Steve is the managing partner of legal firm Meredith Connell. He has experience in the implementation of regulatory and compliance functions for significant Crown entities, including the provision of close legal support on compliance policies, procedures and processes, and in the training of staff in their legal duties and responsibilities.

Jill Hatchwell

Jill is a professional director and is a Chartered Member of the Institute of Directors. Her executive career spans over 40 years culminating in the establishment of a successful financial and management consultancy partnership, working with a range of clients in both the central government and private sectors. Jill has accumulated experience across a number of industries including investment companies, aviation, education, property, professional sport, the bloodstock industry and the resources sector.

Jill currently serves on the boards of NZX-listed Chatham Rock Phosphate Ltd and SMW Group Ltd and represents the aviation industry on the board of ServiceIQ (the industry training organisation representing the service sectors in Aotearoa New Zealand). She is a member of the Audit and Risk subcommittees of all three entities.

Jill was appointed to the Board in July 2019.

Charles Spillane

Charles was appointed to the Board in December 2019.

He has been the Chief Executive at Dentons Kensington Swan since 2016 – one of Aotearoa New Zealand's leading national commercial law firms.

Charles was previously the General Manager Corporate Affairs and General Counsel at Auckland International Airport Limited. Charles began his law career after graduating from the University of Auckland in 1996 in arts and law.

Hon. Harry Duynhoven QSO

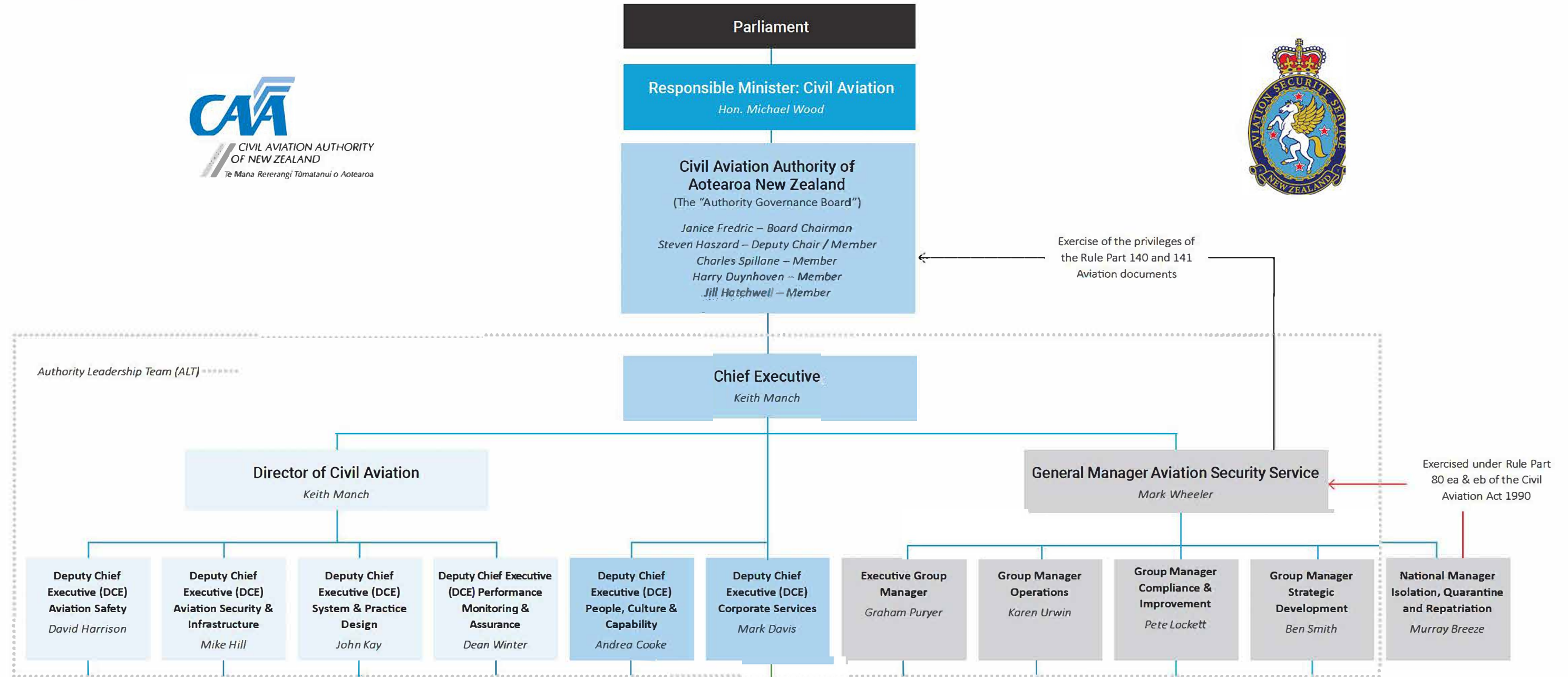
Hon. Harry Duynhoven QSO is an experienced independent consultant with a history of working in the public policy industry. Harry was a long-serving Member of Parliament and was the Minister of Transport Safety between 2005 and 2008. He was appointed to the Board in May 2019.

Harry was Mayor of the New Plymouth District Council from 2010 to 2013 and remains a councillor.

He is currently a member of the Air Quality Asia Board. Since 2014 he has run Duynhoven Solutions, a consultancy service in Energy, Transport, Aviation, Safety and Governance.

APPENDIX 6

Organisational structure



- Monitoring & Inspection
- Licensing & Standards
- Investigation & Response
- Certification

- Aeronautical Services
- Security Regulation
- Aviation Security Strategic Intelligence

- International & Regulatory Strategy
- New Southern Sky
- Regulatory Interventions
- Operational Policy, Practice & Guidance

- Governance & Executive
- Legal
- Strategy, Planning & Reporting
- Regulatory Intelligence & Systems Risk
- Quality Systems & Risk
- Engagement & Communications
- Enterprise Portfolio Management Office

- Health, Safety, & Wellbeing
- People Operations
- Employment Relations
- Culture, Capability, & People
- Te Kākano Programme

- Finance
- Infrastructure & Property
- Information & Technology

- Executive Assistance
- Business Support
- Training
- Workforce & Business Performance
- Programme Monitoring & Coordination

- Auckland
- Wellington
- Christchurch
- Queenstown
- Dunedin
- Invercargill
- Intelligence
- Explosive Detector Dog Unit (EDDU)
- Behaviour Detection (BD)
- National Rostering Centre

- Quality & Risk Assurance
- Continuous Improvement
- Operational Performance & Risk Reporting

- Innovation & Strategy
- Capability Delivery
- In-Service Support



Aviation Security Service
Kaitiaki Kereangi

Civil Aviation Authority of New Zealand.
Asteron Centre, 55 Featherston Street,
PO Box 3555, Wellington, 6011, Aotearoa New Zealand.