

CIVIL AVIATION AUTHORITY

Briefing to the Incoming Minister

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Kaiwhakamaru Rererangi

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Executive summary

The Civil Aviation Authority's current operating environment is dominated by record passenger numbers, evolving aviation security threats, the potential reshaping of the civil aviation system by new technologies, and the transition to performance-based regulation. Those themes will endure in coming years.

The Authority has a very clear focus on performing its legislated mandate, improving regulatory stewardship of the civil aviation sector and meeting Government expectations. It strives to perform its safety and security regulatory functions and deliver its aviation security services in a way that:

- supports economic growth and productivity;
- balances being an effective regulator with enabling the New Zealand aviation sector to prosper; and
- demonstrates value for money.

The past year saw good progress in the introduction of new Safety Management System (SMS) Civil Aviation Rule requirements and continued growth in the number and complexity of unmanned aircraft. The performance-based SMS requirements will be exceptionally challenging both for the aviation sector and the Authority's regulatory workforce which are both conditioned to working within the current highly prescriptive Civil Aviation Rule set.

Our challenges regarding unmanned aircraft are significant growth in the number and complexity of operations, and striving to enable the introduction of new technology while adequately managing risk. This 'enabling' approach to the introduction of a disruptive technology demands engineering, aviation and regulatory skills of the highest order. The Authority is committed to this approach despite the fact that it very clearly demands greater capacity and capability than the more traditional compliance-based regulatory approach of the past.

The Aviation Security Service (Avsec) has progressed well toward its 2022 vision of a being a modern, effective, efficient and risk-based service provider, which strives to deliver 'smart security' rather than the one-size-fits-all approach of the past. This progress has been made despite the recent extraordinary increase in passenger numbers that has significantly increased the demand for its services.

While dealing with the above challenges, the Authority is also planning to replace the obsolescent information systems supporting its business processes and this work will pick up pace in the next year.

SUPPORTING ECONOMIC GROWTH AND DEVELOPMENT

The year has seen a continuation of the Authority's strategy of international engagement where it provides a benefit to New Zealand. Benefits may be reputational, such as an enhanced reputation for New Zealand as a safe place to fly to and within, or as a reputable source of aviation products and services. Alternatively, benefits may relate to our ability to influence the development of international standards to ensure that they do not impose an unreasonable burden in the New Zealand context.

During the year, technical agreements were signed between the Authority and the Civil Aviation Administration of China and the Civil Aviation Administration of Vietnam. Respectively, these relate to the manufacture of a New Zealand certificated aviation product in China and the training of Vietnamese pilots by New Zealand flight training organisations.

Finally, it is worth noting that the New Southern Sky programme for the modernisation of the civil aviation system in New Zealand made very good progress during the year and will continue over the next few years. Cabinet tasked the Civil Aviation Authority (CAA) with coordinating this very complex programme of work. Just under 3% (\$1.2M) of the CAA's annual expenditure is currently going into this work which will provide significant national benefits in the form of safety, efficiency and reduction in carbon emissions.



FINANCIAL POSITION AND VALUE FOR MONEY

It is a legislative requirement that the Authority maintains separate accounts for its two operating arms. The Authority's primary source of funding comes from levies and charges paid by airlines on a per-passenger basis. Thus, the strong financial position of both arms of the organisation reflects the recent unprecedented growth in international passenger numbers, and decisions made by the Authority in the context of that environment. The Authority's accounts show a growth in expenditure on the delivery of security services and regulatory functions. They also show reserves levels that are deliberately being held high while uncertainties are resolved or significant one-off costs are incurred.

In the regulatory part of the organisation, reserves will fund the replacement of the business system in coming years. Reserves will also contribute to the significant investment in training and assessment to equip regulatory staff to work in the SMS environment. The Authority considers that this investment must be made in order to provide assurance that the safety benefits offered by the introduction of the SMS requirements will be fully realised.

In Avsec, reserves will partially fund the growth in capacity and capability required in response to the increase in passenger numbers and evolving threats.

The Authority remains mindful of the ongoing need to demonstrate value for money (VfM). It recognises that effectiveness is at the heart of VfM and considers that the increases in expenditure are the minimum necessary to ensure proactive and effective operations. In addition, it notes that VfM concepts are deeply embedded in the Authority's operations, including its response to the challenges outlined above.

By way of example, rather than simply increase staff numbers proportionate to the growth in passenger numbers Avsec is increasing the use of new technology to the greatest degree possible to improve productivity and minimise the cost of growth. As another example, in response to concerns about commercial helicopter operations, the Authority reallocated existing resource from its oversight of airlines to the oversight of helicopter operations. Unfortunately, there is a practical limit to how much internal resource reallocation can be done without creating risks elsewhere.

Good decision-making regarding the ongoing business system replacement is also providing significant benefits. Approximately two years ago, after receiving responses to a 'Request for Proposal' for the replacement, the Authority decided to defer planned investment in order to seek alternative options with lower costs and more acceptable risks. As a consequence of that decision and a subsequent

partnership with the New Zealand Transport Agency, what was formerly a high-risk programme is now projected to be completed over the next three years at less cost than initially envisaged and with significantly less risk than was originally assessed. The associated business process design work will provide an opportunity to use digital transformation as a key enabler for how we work and how we interact in a customer-centric way.

The Authority's Red Tape Reduction Initiative is also working to reduce unnecessary regulatory burden. The first Rules project resulting from the initiative was signed recently and will result in the requirement for an Annual Review of Airworthiness for standard category recreational aircraft being replaced with a biennial review – which will halve the associated costs for operators of such aircraft. On a similar theme, the Authority has recently consulted on the possibility of reducing the medical certification standard for the holders of a Private Pilot Licence. If eventually passed into law, this work has the potential to significantly reduce costs for such pilots and also reduce the Authority's costs in administering the current system.

The Authority will continue to drive VfM concepts despite essential increases in cost.

FUNDING

The end of the 2016/17 Financial Year marked the completion and successful implementation of a funding review for the regulatory part of the organisation. The Authority considers the changes made have produced a more equitable funding system, which will ultimately support it to achieve its safety outcomes.

As would be expected, the changes made to broaden the funding base of the organisation through the introduction of new activity-based Operator Safety Levies have not been popular with those who will pay more. Despite the benefits provided by the review, the Authority anticipates that a complaint will be made to the Regulations Review Committee about the changes before the end of 2017. The Authority worked closely with the Ministry of Transport during the review and is confident that the process followed was robust and any complaint is unlikely to be upheld.

In coming months we will move into a review of funding for Avsec. In all funding considerations we will be careful to minimise costs and avoid introducing oscillating charges or levies. Despite the difficulty of accurately predicting passenger numbers, the aim is to provide the sector with a stable and predictable charging regime.

The Authority

We are a Crown Entity established under the Civil Aviation Act 1990 (the Act).

Led by the Director of Civil Aviation/Chief Executive, the Authority has two functional arms:

- the **Civil Aviation Authority** – performs safety and security regulatory functions; and
- the **Aviation Security Service (Avsec)** – delivers aviation security services at New Zealand’s five security designated airports – Auckland, Wellington, Christchurch, Dunedin and Queenstown.

Figure 1 shows an overview of the Authority’s structure, functions, and accountabilities.

The Authority’s objective as established in the Act is to:

Undertake its safety, security, and other functions in a way that contributes to the aim of achieving an integrated, safe, responsive, and sustainable transport system.

The Authority’s goal is

Safe and Secure Skies

– to help New Zealand to fly.



Aviation is critical to New Zealand’s economy, global connections and reputation. It provides vital connections for the movement of people and goods around the country and around the world. Ninety nine percent of people arriving in New Zealand do so by air and \$8 billion of our exports are flown out of the country.

Maintaining safety and security is critical for avoiding harm. A safe aviation system promotes travel, trade, and the enjoyment of aviation as a sport and recreational pursuit for New Zealanders and visitors alike.

The Civil Aviation Authority and the Director of Civil Aviation have a range of functions focused on maintaining and enhancing aviation safety and security. They include:

- promotion of aviation safety and security in New Zealand and beyond, in accordance with New Zealand’s international obligations;
- investigating and reviewing civil aviation accidents and incidents in its capacity as the responsible safety and security authority;
- exercising control over entry into the civil aviation system through the granting of aviation documents under the Act;
- acting in the public interest to enforce the provisions of the Act and Rules and Regulations made under the Act; and
- monitoring adherence within the civil aviation system to relevant regulatory requirements.

The Ministry of Transport also funds the Authority to perform some elements of its process for the development of Civil Aviation Rules.

Avsec is jointly responsible, with the New Zealand Police, for the prevention of offences against the Aviation Crimes Act 1972 at the five security designated airports. It does this by:

- screening and searching passengers and bags on all international flights and on domestic flights by aircraft with a certificated seating capacity of greater than 90 passengers;
- screening and searching persons and things entering the security enhanced or sterile areas at security designated airports; and
- conducting airport security patrols.

To the maximum degree possible – consistent with the overarching public interest in safety and security – the Authority aims to perform its functions in a way that enables aviation activity and supports the New Zealand economy. We intend to support innovation and contribute to the wider transport sector strategic priorities of supporting economic growth and productivity while delivering increased value for money.

Figure 1

Safe and Secure Skies to help New Zealand fly

THE AUTHORITY



Who we are

ESTABLISHED

in 1992 as a
Crown entity
under the Civil Aviation Act
1990 (the Act)

RESPONSIBLE

to the Minister
of Transport

Ministers expectations 2017/18:

- Supporting economic growth and productivity
- Delivering greater value for money
- Improving safety

GOVERNED

by a five-member
board (“the Board”)

For more information –
refer to the appendix 6

PRIMARY OBJECTIVE

is safety and
security

We deliver on this objective
via the two functions of the
Authority

What we do



REGULATORY FUNCTION

The aviation safety and regulatory
function delivers four core outputs:



SECURITY SERVICE FUNCTION

The security service function (‘the Security
Service’) delivers the following core
outputs:



Policy and regulatory strategy

- Ensure civil aviation system is robust and responsive.
- Maintain safety and security standards.
- Regulatory toolkit for interventions.



Outreach

- Support civil aviation participants.
- Influence/change attitudes and behaviours and encourage aviation participants.



Certification and licensing

- Control entry and exit to the New Zealand civil aviation system.



Surveillance and investigation

- Monitor compliance with safety and security standards.
- Inspections and audit participants.
- Administer the provisions of the Health and Safety at Work Act 2015 for aircraft in operation.



Security service delivery

- Security-designated airports and air navigation facilities.
- All passengers screened for prohibited items and dangerous goods.
- Screen airport workers.
- Support aerodromes.
- Provide a maritime security response on high-profile events that could be targets for terrorism.

International context

Civil aviation is an international system governed by the International Civil Aviation Organization (ICAO), of which 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 the New Zealand Government's designated agency to manage all technical interactions with ICAO regarding safety and security matters.

ICAO works with the Convention's 191 member States and industry groups 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. SARPs are incorporated into the national legislation of ICAO member States to ensure that their international civil aviation operations and regulations conform to global norms. Consequently, adoption of these 'global practices' enables more than 100,000 daily flights in aviation's global network to operate safely and reliably in every region of the world.

New Zealand's Civil Aviation Act empowers the Minister of Transport to make Civil Aviation Rules for a range of purposes including the implementation of New Zealand's obligations under the Convention. The Act also states that Civil Aviation Rules shall not be inconsistent with ICAO SARPs.

INTERNATIONAL COMPARISON

New Zealand ranks on par with the average of OECD States with respect to implementing ICAO's SARPs. ICAO continuously monitors a member State's compliance in addition to conducting periodic audits. This continuous monitoring and auditing results in an 'Effective Implementation' (EI) score for each State.¹

Other States use the ICAO EI score as a means to determine how safe or reliable an individual State's civil aviation oversight system is. Consequently, a downgrade of New Zealand's EI score could have an impact on New Zealand's reputation as a safe and secure place to fly to, from and within. It might also have an adverse effect on the reputation of New Zealand aviation products overseas.

ICAO EI SCORES (AS AT AUGUST 2017)

New Zealand	84.86%
Australia	85.14%
OECD Average	84.24%
World Average	64.79%
Asia-Pacific Average ²	59.56%
Oceania Average ³	43.57%

¹ The eight Critical Elements of an ICAO assessment cover: Primary aviation legislation; Specific operating regulations; State civil aviation system and safety oversight functions; Technical personnel qualification and training; Technical guidance, tools and provision of safety-critical information; Licensing, certification, authorisation and approval obligations; Surveillance obligations; Resolution of safety concerns.

² Asia-Pacific States are: Australia, New Zealand, Fiji, Samoa, Tonga, Palau, Federated States of Micronesia, Cook Islands, Nauru, Solomon Islands, Vanuatu, Marshall Islands, Papua New Guinea, Thailand, Cambodia, Bhutan, Timor-Leste, Bangladesh, Indonesia, Nepal, Brunei-Darussalam, Myanmar, India, Pakistan, Vietnam, Philippines, Laos, Malaysia, North Korea, South Korea, Maldives, Australia, China, Japan, New Zealand, Sri Lanka, Singapore, Mongolia.

³ Oceania States are: Australia, New Zealand, Fiji, Samoa, Tonga, Palau, Federated States of Micronesia, Cook Islands, Nauru, Solomon Islands, Vanuatu, Marshall Islands, and Papua New Guinea.

ICAO last audited New Zealand in December 2016. Due to the Kaikoura earthquake the month prior, and the consequent inability to access the Authority's offices, the audit scope was greatly reduced and focused on New Zealand's accident investigation obligations. In this specific audit area, New Zealand's EI score increased 11.5% to 79.25%, and the overall EI score increased by 1.14%. ICAO will complete a desktop audit of the remaining areas of the assessment in the coming months. Once completed, we expect New Zealand's overall EI score will increase.

INTERNATIONAL ENGAGEMENT

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

Excluding economic regulation of civil aviation, the Authority is the designated Government agency to engage with ICAO on technical matters.

Engaging at an international level allows New Zealand to influence global standards, and to keep pace with worldwide changes that can deliver safety and economic benefits to New Zealand's traveling public, aviation industry, and wider economy including trade and tourism sectors. The Chief Executive/Director has been prominent in promoting New Zealand's interests within ICAO during the past year. He chaired the Technical Commission of the International Civil Aviation Organization (ICAO) 39th General Assembly in 2016 and is one year in to a three year term as Chair of ICAO's Asia Pacific Air Navigation Planning and Implementation Regional Group.

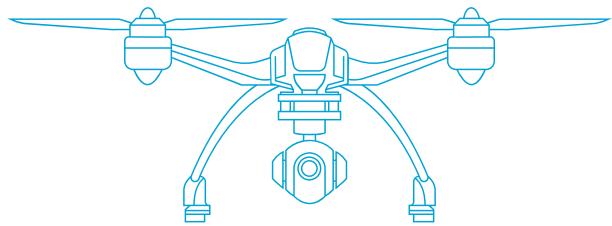
COOPERATION WITH AND SUPPORT OF OTHER STATES

The Authority, alongside the Ministry of Transport and the Ministry of Foreign Affairs and Trade (MFAT), works with overseas aviation authorities to advance aviation safety and security and to promote access to overseas markets for New Zealand aviation businesses. For example, the Authority has entered into specialist technical agreements with regulators from the People's Republic of China, Vietnam, Australia, Canada, the United States and Europe.

Working with overseas regulators allows us to help reduce regulatory compliance costs for New Zealand operators that provide aviation goods and services overseas or on behalf of overseas organisations.

The Authority also provides technical advice and assistance on request to many Pacific States through the Pacific Aviation Safety Office (PASO)⁴.

The Authority works closely with PASO and its member States through the provision of technical advice and assistance and to build capacity and promote good aviation safety and security practice. Much of the Authority's work in the Pacific region is funded by MFAT. This is seen as a priority due to the special relationship New Zealand has with many of the Pacific Islands, our direct air links with the region, and the number of New Zealanders who travel in the area.



⁴ PASO is formed as a result of the Pacific Islands Civil Aviation Safety and Security Treaty signed by Australia, the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

Our future

STRATEGIC PRIORITIES

We contribute to the wider Government transport sector⁵ goal of “a transport system that maximises economic and social benefits for New Zealand and minimises harm”. The Authority itself has three key strategic objectives:

- improved sector safety performance;
- effective and efficient security services; and
- a vibrant aviation system.

Our outputs achieve these objectives. The three key strategic objectives have the impacts of being safe and feeling safe. These impacts feed into the ultimate outcome of ‘Safe and Secure Skies to help New Zealand fly’.⁶ The relationship between these and how we work are illustrated in the strategic framework in figure two.

THE NEXT THREE YEARS

The next three years will be some of the most challenging experienced by the Authority as we continue to respond to an increased demand for our regulatory and security services.

Drivers of this include:

- the continued move towards performance-based regulation and safety management to better mitigate and manage risk in the aviation system;
- growth in new and novel disruptive technology such as Remotely Piloted Aircraft Systems (RPAS); and
- a complex aviation security environment combined with sustained growth in international visitor numbers.

COMPLEX REGULATORY CHALLENGES

In recent years, the Authority’s regulatory approach has undergone a considerable 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.

- **Risk-based** regulation means that when risk is assessed, consideration is given to factors such as attitudes and behaviours, skills, business systems and resources. Assessment of risk is based on information gathered from audits, investigations and incident reporting. 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 technologies, and a changing operating environment.

Performance and risk-based regulation enable 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 Civil Aviation Rules. By being more targeted to those operations that pose unacceptable safety risks, we are better able to influence behaviours in the aviation sector.

An example of risk-based rules are those that apply to RPAS, also known as unmanned aircraft systems, and colloquially known as ‘drones’. In particular, Civil Aviation Rule Part 102 contains very few prescriptive elements. Instead, it requires operators to identify and mitigate all safety risks to the extent possible, allowing the regulatory framework to keep up with technology and maintain safety without stifling innovation.

⁵ The Transport Sector includes the Ministry of Transport, New Zealand Transport Agency, Maritime New Zealand, KiwiRail, Airways New Zealand, MetService, The Authority and the Transport Accident Investigation Commission.

⁶ Our Statement of Performance Expectations is found here: <http://www.caa.govt.nz/assets/legacy/publicinfo/Perform-Expect-2017-18.pdf>. This sets out our performance against our outputs.

It is also noteworthy that an increasing demand for our regulatory functions is being driven by growth in the size and nature of the aviation sector. For example, there has been growth in the number of smaller operators with a higher risk profile providing air services to regional centres. The number of helicopters in the country continues to grow, amplifying the Authority's concerns about the poor safety performance of that sector and reinforcing our commitment to focus more resource on reducing the risks it poses. There are increasing numbers of international visitors taking commercial helicopter flights and participating in commercial adventure aviation activities.

EMERGENT TECHNOLOGY AND ITS IMPACT – BEING RESPONSIVE AND MANAGING RISK

We strive to adapt and respond to new technology, to ensure there are no unnecessary barriers, while ensuring we continue to focus on safety. This requires the ability to identify and manage emerging risks.

With emergent technology, in the RPAS area for example, we have the challenge of very significant growth in the number and complexity of operations while striving to balance an 'enabling' approach to the introduction of new technology and at the same time adequately managing risk.

We are committed to this approach despite the fact that it demands greater capacity and capability than the more traditional compliance-based regulatory approach of the past.

We will provide you with a separate briefing on RPAS and unmanned aerial vehicles.

AN INCREASINGLY COMPLEX SECURITY ENVIRONMENT

We must continue to meet evolving international and domestic security standards so risks to people, freight and our international reputation continue to be minimised. In particular, for the Aviation Security Service, staffing levels and equipment must be fit for purpose and able to respond to changes in security threats and unprecedented increases in passenger volumes.

As the Authority tackles these challenges and opportunities, as a regulator, aviation security service provider, influencer, and supporter of the aviation system, we seek to:

- be intelligence-driven and risk-based;
- enhance our safety risk and security threat response;
- focus on outcomes rather than just the conduct of scheduled activity;
- support and promote economic development – high standards of safety and security within the aviation system provide a tangible economic benefit; and
- provide our people with challenging, rewarding and satisfying careers.

Despite the challenges identified above, the Authority is confident that the governance and management capability and capacity it has in place is equal to the challenge.

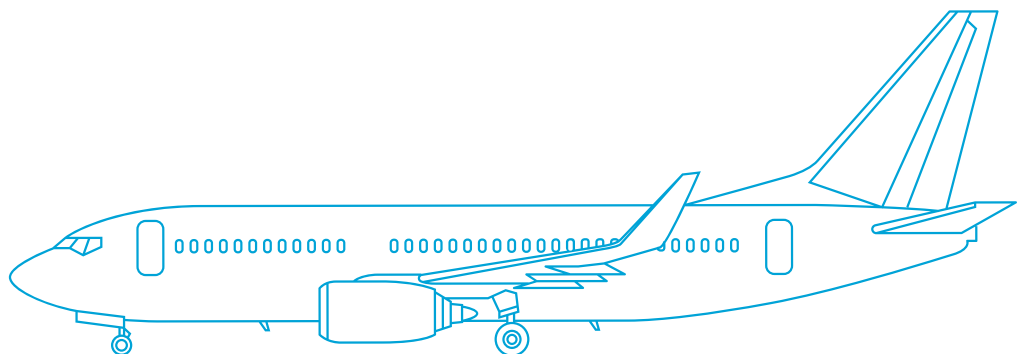


Figure 2

Our outcome

Safe and Secure Skies to help New Zealand fly

Our impacts

Feeling safe

Being safe

1

Building effectiveness and resilience by design

2

Utilising new processes/ systems/ technologies to enable efficient and effective performance of functions

3

Prioritising aviation system risk by being intelligence driven and risk-based

Our objectives



Effective and efficient security services



A vibrant aviation system



Improved sector safety performance

Safety and security focus areas*

4

Business efficiency by design

5

Customer/ participant centric engagement, interaction and service delivery

6

Targeted engagement to influence the environment in which we operate

Our outputs

Policy and regulatory strategy

Outreach

Certification and licensing

Surveillance and investigation

Security service delivery

People

+

Information technology

+

Financials

The way we work

The way we work

* www.caa.govt.nz/assets/legacy/publicinfo/focus_areas_2016-2019.pdf

Organisational performance

The Board's confidence in the capability of the organisation is supported by external domestic and international assessments of its performance. Audit New Zealand conducts the Authority's annual audit. During the audit, which is standard across the State Sector, they assess the organisation in three areas:

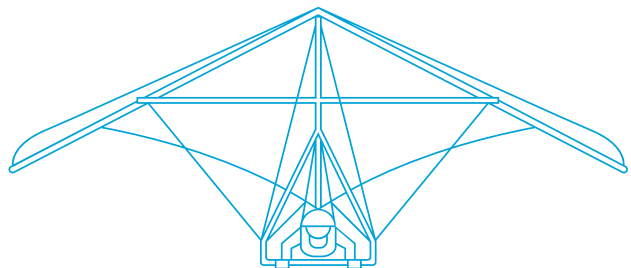
- the management control environment;
- financial information systems and controls; and
- service performance information and associated systems and controls.

The resulting performance assessment is referred to as the environment, systems, and controls (ESCO) grading. In the past two years the Authority obtained ratings of 'very good' – the top grading – in all three areas of assessment. Less than 10% of public sector organisations achieve this standard.

The Ministry of Transport also monitors the performance of the Authority in accordance with its Crown Entity Assessment framework. Following its most recent assessment of the Authority, the Ministry reported that "based on the current operating environment and organisational capability, the Ministry has assessed the Authority as comprehensive (consistently meets expectations) in its ability to deliver on its functions over the next four years". This is the highest ranking assigned to any of the transport sector entities.

The Authority's operations are also subject to periodic review by ICAO and the performance of our security functions at international airports is regularly assessed by the aviation security agencies of other countries.

It is also noteworthy that the Authority recently achieved certification to the new ISO 9001: 2015 Quality Management Standard. This certification provides an additional layer of assurance that the organisation is well led, is focused on the achievement of its desired outcomes and the functions it delivers are fit for purpose.



Safety performance

The safety performance of the civil aviation system is variable. It ranges from excellent in the large aircraft (airline) sector to quite poor in the commercial helicopter and private recreational aviation areas. The helicopter sector is a particular concern given the growth of the sector in recent years and the use of the aircraft in the burgeoning tourism industry.

SAFETY AND SECURITY FOCUS AREAS

To improve the overall safety performance of the New Zealand aviation system, the Authority has identified eight safety and security focus areas, based on analysis of safety performance data.

The current focus areas are⁷:

1. **Loss of control in flight** – the risk of aircraft divergence from normal flight parameters or paths, for any reason. Contributing factors can include (but are not limited to) weather, equipment malfunction, crew error, etc.
2. **Runway excursions** – these occur when an aircraft veers off the runway surface. This can be an overrun on landing, or failure to take off before reaching the end of the runway.
3. **Airborne conflicts** – increasing concerns over reported airspace incidents in controlled and uncontrolled airspace where aircraft are not sufficiently and safely separated. Airborne conflicts can result in mid-air collisions.
4. **The helicopter sector** – various indicators suggest that the commercial helicopter industry has a higher rate of incidents and accidents (including fatalities) than comparable sectors in New Zealand and other countries.
5. **Queenstown operations** – Queenstown airspace has a variety of flying activities, mountainous terrain, changeable weather and high density of traffic – all of which create a challenging operational environment with an increased potential for accidents to occur.
6. **Security threat level and responses** – we must be able to respond to changes in threat levels with clear decision pathways and responsibilities, and mechanisms for implementing new or additional security controls.
7. **International air cargo security** – air cargo security depends on a robust and trusted supply chain system. Informed and targeted interventions will sustain compliance throughout the entire air cargo supply chain and retain wide stakeholder assurance as to the level of security applied to international air cargo.
8. **Smart security** – we must be informed, agile thinkers, capable of evaluating options in response to changing situations. Resilience must be built in to our current system to meet future demands. We must think smarter to improve security outcomes, enhance passenger facilitation and optimise utilisation of equipment and staff, for example using “Smart Lanes” to process passengers at airports.

These focus areas drive annual planning and day-to-day work, and serve to focus existing regulatory interventions that maintain safe and secure skies and improve sector safety performance.

Resources and action plans have been organised around each focus area to monitor their progress and outcomes.

The dynamic nature of aviation requires the Authority to be agile and resilient. As we intervene in the system, the behaviours of those within it, and the issues giving rise to safety concerns, will change. The Authority reviews these focus areas regularly, and they are likely to change throughout the life of the Authority’s 2016-2026 Statement of Intent.

We will advise you of changes to the focus areas, and the reasons for those changes.

⁷ More information: https://www.caa.govt.nz/publicinfo/focus_areas_2016-2019.pdf



Security service delivery

The Authority's Aviation Security Service (Avsec) is the state provider of aviation security services at the five security designated airports in New Zealand⁸. Aviation security in New Zealand and around the world is changing rapidly. Change is occurring at a faster rate and is much more dynamic in nature than ever before. To put Avsec's publically visible work – passenger screening – in context, the table below shows an average snapshot of some key measures for the 2016/17 financial year:

AVIATION SECURITY ENVIRONMENT

PASSENGER SCREENING TIME

Average screening time for domestic passengers	107 seconds
Average screening time for international passengers	143 seconds
Estimated number of international passengers screened	6.3 million
Estimated number of domestic passengers screened	7.1 million
Estimated total number of passengers screened	13.4 million

As a certificated organisation under the Civil Aviation Rules, Avsec is subject to regulatory oversight by the CAA.

Avsec conducts passenger and baggage screening and contributes to overall security at airports. For example, Avsec conducts perimeter and airport patrols and issues airport identity cards.

Below is a forecast for the five year period 2017-2021, showing the number of passengers Avsec will likely need to screen. It indicates that Avsec will need to process an additional two million more people by 2021 – almost 16% more people.

Looking further into the future, if international passenger travel forecasts are correct, by 2030, Avsec will likely need to screen in the order of 26 million passengers per annum.

In response to these challenges, the Authority's Future 2022 and Beyond strategy has been developed to support Avsec in doing things in smarter and better ways. Avsec will build on what it does well. Avsec is a member of the Border Sector Governance Group that sees border agencies working together to address common challenges and risks. Membership of this group enables Avsec to work with agencies delivering border control services such as immigration and customs control, and to ensure international airport operations are both effective and efficient.

A core part of Future 2022 is developing and deploying smart security solutions to meet future demands in terms of passenger volumes and potential security threats.

For example, Avsec is evaluating the potential of advanced imaging technology to improve the efficiency and effectiveness of security screening. Avsec recently trialled new screening technologies at Wellington Airport. Initial results from the trial are positive. Passengers seem happy to be screened using the technology; and throughput appears to be higher compared to existing walk through metal detectors.

PASSENGER SCREENING FORECAST FOR 2017-2021

	2017	2018	2019	2020	2021
International passengers '000s	6,288	6,581	6,857	7,129	7,395
Domestic passengers '000s	7,043	7,242	7,444	7,655	7,875
Total passengers	13,331	13,823	14,301	14,784	15,270

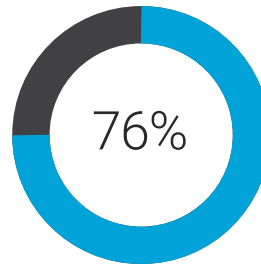
⁸ Auckland, Wellington, Christchurch, Dunedin and Queenstown Airports.

Results from the May 2017 “Feel Safe” survey

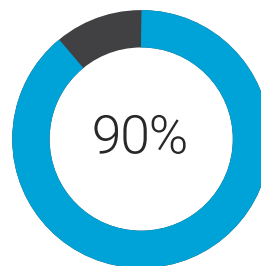
There is widespread confidence amongst domestic and international travellers in New Zealand’s aviation security system, according to the Feel Safe survey undertaken in May 2017. Three quarters of international travellers perceive the New Zealand aviation security system to be effective.

Pre-flight security checks or screening make the biggest contribution to both New Zealand resident and international travellers’ feelings of safety and security – particularly the ‘walk through’ metal detectors and screening of carry-on luggage. These results are consistent with those from 2014.

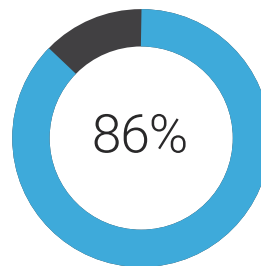
New Zealand’s aviation security system, including Avsec’s operations and performance, are regularly audited by the CAA and other security regulators such as the United States Transport Security Administration, and the Australian Office of Transport Security. The confidence these countries have in our aviation security system has enabled special agreements to be entered into which result in an enhanced passenger experience and improved passenger facilitation.



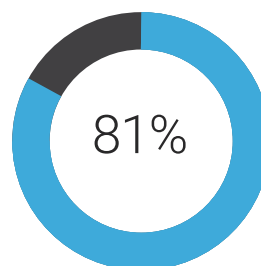
76%
of New Zealand resident travellers feel extremely or very safe and secure on their most recent domestic or international flight



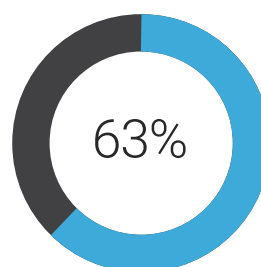
90%
of overseas visitors feel extremely or very safe and secure on domestic or international flights departing from New Zealand



86%
of people flying to overseas destinations from New Zealand feel safe



81%
of people flying on screened domestic routes feel safe



63%
of people flying on non-screened domestic routes feel safe

Appendices

The following appendices provide a combination of overview and detailed information on the Authority, its operating environment and the civil aviation sector:

APPENDIX 1: Key Authority and rule projects

APPENDIX 2: Facts and figures 2016/17

APPENDIX 3: How we work and what we do

APPENDIX 4: Staff numbers and funding

APPENDIX 5: Aviation sector profile

APPENDIX 6: Organisational structure and Authority contacts



Appendix 1: Key Authority and rule projects

Our rule development and key projects are driven by strategic priorities and transport sector goals. The following are the larger pieces of work that you will be engaged on:

REGULATORY FUNCTION	CONTEXT	MINISTERIAL ENGAGEMENT
New Southern Sky (NSS)	<p>Led by the Authority and supported by Airways and the Ministry of Transport, NSS is a 10 year programme of work focused on modernising New Zealand's: navigation, surveillance, communications, aeronautical information, air traffic management, airspace design, aerodromes, and meteorological services. NSS is benefit-led, focusing on delivering aviation system changes that will improve safety performance, social connectedness, reducing environmental impacts, and making use of emerging technologies.</p> <p>This project contributes to the objectives of improved sector safety performance, and a vibrant aviation system.</p>	<p>Updates will be provided as part of your regular Authority briefings and in the form of specific briefings from time to time.</p> <p>Overall timeframe: Stage Two: 2016-2018, Stage Three 2019-2023.</p> <p>NSS will give rise to a number of proposed rule changes. We will update you regularly on these projects, and programme highlights as stage two progresses.</p> <p>Separate briefing to be provided.</p>
Aviation Security Service (Avsec) Funding Review 2018/19	<p>In August 2017, the Authority initiated a full funding review of the Aviation Security Service's current cost recovery framework and regulated charges (International and Domestic Security Passenger Charges and two Airport Identity Card Information System charges).</p> <p>This project contributes to the objectives of ensuring we provide an effective and efficient security service, able to respond to changes in security threat levels.</p>	<p>Updates will be provided as part of your regular Authority briefings, and in the form of specific briefings at key points.</p> <p>Implementation is expected before 2020.</p>
Private Pilot Licence (PPL) medical certification	<p>The Authority is considering whether the medical certification requirements for private pilot licences (PPL) are justified, in terms of both cost and the standard of physical fitness required, relative to the level of risk posed by PPL holders. Consultation closed 19 June 2017 and policy analysis is underway to determine whether or not an alternative standard should be adopted, and if so, the most appropriate option.</p> <p>This project contributes to the objective of a vibrant aviation system.</p>	<p>A summary of submissions will be published in the near future.</p>
Regulatory Craft Programme (RCP)	<p>The RCP is a significant part of the Authority's strategic focus and is designed to ensure that we have the required capability, tools and systems to be an intelligence-driven, risk-based regulator where interventions are targeted to effectively manage risk and ultimately contribute to safe and secure skies. The timeframe for this project spans the next two and a half years.</p> <p>The programme has four core streams of work.</p> <ol style="list-style-type: none"> 1. Regulatory leadership capability; 2. Regulatory staff capability; 3. Regulatory tools – guidance; and 4. Regulatory Tools – technology. <p>This project contributes to the objectives of improved sector safety performance and a vibrant aviation system.</p>	<p>You will be updated regularly on this project.</p>

REGULATORY FUNCTION	CONTEXT	MINISTERIAL ENGAGEMENT
Civil Aviation Act 1990 Review	<p>The Ministry of Transport, in consultation with the Authority recently reviewed the Civil Aviation Act 1990, recommending some changes to be made to the Act.</p> <p>Prior to this, the Act not been reviewed in over 20 years; in that time, a number of amendments have been made and other elements of the regulatory schema have changed. The Authority continues to work closely with the Ministry on this.</p> <p>This project contributes to the objectives of improved sector safety performance, effective and efficient security services, and a vibrant aviation system.</p>	<p>The Act is currently being drafted by the Parliamentary Counsel Office.</p> <p>You will be updated with progress.</p>
Fatigue Risk Management	<p>The CAA is evaluating the way fatigue is managed in aviation and considering whether improvements are needed to ensure the regulatory framework is fit for purpose. Fatigue is a complex issue and a multi-pronged approach is likely to be most effective.</p> <p>We are considering these main issues: prescriptive duty times; performance-based standards, including options for a Fatigue Risk Management System; non-legislative interventions; and reporting of fatigue.</p> <p>This project contributes to the objective of improved sector safety performance and the focus areas of loss of control in flight, runway excursions, airborne conflict, and the helicopter sector.</p>	<p>Released summary of submissions in August 2017.</p> <p>Policy decisions scheduled end of November.</p> <p>You will be updated on policy recommendations made via your regular Authority briefings.</p>
'Clear Heads' Drug and Alcohol Management	<p>The Authority is supporting the Ministry of Transport on the implementation of "Clear Heads" drug and alcohol management. In 2016 Cabinet agreed to:</p> <ol style="list-style-type: none"> 1. mandate drug and alcohol management plans (DAMPs) for all commercial aviation and maritime operators, including random testing of workers in safety sensitive roles; and 2. give powers to the Directors of the regulatory agencies to undertake non-notified testing of commercial operators in order to ensure compliance with their DAMP. <p>This project contributes to the objective of improved sector safety performance.</p>	<p>Signed off by Cabinet in 2016.</p> <p>Implementation expected as part of the reform of the Civil Aviation Act.</p>
Remotely Piloted Aircraft Systems (RPAS) and Unmanned Aircraft Systems (UAS)	<p>Rules for RPAS and UAS were introduced in August 2015, including the performance-based Part 102 that allows any operation as long as the operator can prove that they have appropriately mitigated the risks involved in the operation. This allows for research, development, and commercial application of the rapidly advancing technology.</p> <p>The Authority is contributing to Ministry of Transport-led work on how to fully integrate UAS and associated technologies across the spectrum of New Zealand Government's interests. The Authority is actively engaged in this work, including through a cross agency group and is providing technical and analytical support to the Ministry.</p> <p>This project contributes to the objective of a vibrant aviation system.</p>	<p>We will keep you updated on developments in this sector.</p> <p>Separate briefing to be provided.</p>
Implementation of Safety Management Systems (SMS)	<p>The SMS rule came into effect on 1 February 2016. The rule is being implemented in stages over a transition period of 1 February 2021.</p> <p>Under SMS, organisations have systems for hazard identification and risk management; safety targets and reporting processes; and procedures for quality assurance, investigations, and safety education. SMS is intended to be a comprehensive and scalable system for safety management that suits the size, complexity and risks associated with the activities undertaken by the organisation.</p> <p>A range of New Zealand-specific resources have been developed by the Authority to assist organisations adopt an SMS. This includes SMS guidance material and SMS implementation workshops around New Zealand.</p> <p>This project contributes to the objective of an improved sector safety performance and Focus Areas 1 – 5.</p>	<p>Rule signed December 2015.</p> <p>Staged implementation over the next five years.</p>

NEW SOUTHERN SKY PROGRAMME

The New Southern Sky (NSS) programme to modernise New Zealand's airspace and air navigation systems is being led by the CAA in partnership with the Ministry of Transport and Airways New Zealand.

The aim of the programme is to implement the National Airspace and Air Navigation Plan (2014) through a coordinated and collaborative approach across the aviation sector to deliver safety, social, economic and environmental benefits.

This three stage benefits-led programme spans a decade and is in stage two. NSS is in the process of delivering a new airspace surveillance system, satellite-based performance based navigation procedures and a new air traffic management system. This will be enabled by aircraft equipment mandates, up to date satellite navigation rules and a future technology safety assurance project.

A recent programme cost benefit analysis, which used actual data from the air traffic system confirmed that planned benefits are being delivered. Further benefit delivery evaluations are planned at two yearly intervals. The NSS programme extends out to 2023.

We expect to provide you with a separate briefing on NSS as we continue to progress this significant work programme.

SAFETY MANAGEMENT SYSTEMS – ENHANCING SAFETY CULTURE

The implementation of safety management systems (SMS) across the New Zealand aviation system is an example of moving towards being more risk-based and creating a more responsive regulatory system.

Since February 2015, Civil Aviation Rule Part 100: Safety Management has required commercial operations to establish, implement, and maintain a comprehensive and scalable SMS.

SMS is an ICAO mandated formal risk management system designed to improve safety. SMS integrates a range of safety management tools, including senior management

commitment, hazard identification, risk management, safety reporting, occurrence investigation, remedial actions and education. It is inherently risk-based and forward-looking, and combines elements of quality and risk management into an integrated system that helps organisations:

- identify the hazards and associated risks that affect the whole organisation;
- control, monitor, communicate and review those risks;
- assure the quality of products and services while complying with standards; and
- continually improve products and services.

SMS is a significant change and will take time to fully implement. Group 1 operators (larger operations) must have an approved SMS by 1 February 2018, while Group 2 (all other operators) must have one in place by 1 February 2021.

AUTHORITY FUNDING REVIEW – CHANGING BEHAVIOURS OF THE SECTOR

In 2016, the Authority completed a full review of its fees, charges and levies to ensure that revenue was coming from the right sources and that the right people were paying the right amount. A key outcome was that surveillance activities (such as audits) should be recovered from levy revenue, rather than through hourly charges.

This means that the interactions between the Authority and operators are no longer driven by a desire to minimise the time they engage with each other (and hence direct cost). The cost recovery mechanism is now aligned to the intervention logic of our monitoring and inspection activities – the alignment is critical in a risk-based regulatory environment to ensure that Authority staff focus on risk. Hourly charges are maintained for follow-up surveillance, thus providing a pricing disincentive to on-going non-conformance or unmitigated risk.

MAINTAINING OUR EFFECTIVENESS AS REGULATOR

As aviation regulation becomes more performance-based, the cultural change required to implement and support it is often as great for the regulator as it is for those subject to it. To meet these challenges we are focused on:

- being intelligence-led, to create tools and resources such as risk profiles of specific parts of the aviation sector⁹; and
- building internal capacity and capability to design and implement evolving regulatory practices.

For example, the Authority's Regulatory Craft Programme (RCP) is focused on ensuring that our regulatory workforce is suited to regulation in a risk-based environment. The RCP is a formal programme of three distinct work streams dedicated to people, guidance (operational policy), and technology (business systems that support and enable the actual work).

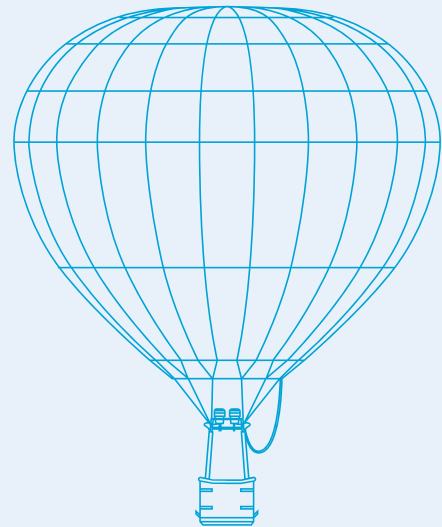
HAZARDOUS SUBSTANCES AND NEW ORGANISMS LAW CHANGE

The Hazardous Substances and New Organisms (HSNO) Act 1996 currently requires the Director of Civil Aviation to enforce the provisions of the HSNO Act "in or on any aircraft". There is a reasonable policy rationale for this because of the considerable overlap between the provisions of the HSNO Act (and associated regulations) and the Civil Aviation Dangerous Goods requirements already enforced by the Authority.

In practice, the existing HSNO responsibilities are performed through enforcement of the Dangerous Goods requirements. For some reason, the HSNO Act has been amended to add a responsibility to enforce the Act "relating to the discharge of hazardous substances from aircraft". This is a considerable broadening of the Authority's responsibilities to cover such things as 'spray drift', potentially the aerial use of Vertebrate Toxic Agents such as 1080, and goes beyond the scope of the Civil Aviation Dangerous Goods requirements.

Existing Authority HSNO activity is funded via a "multiple output class appropriation" to the extent of around \$5,000 PA, which recognises the current minimal amount of activity undertaken in support of Regional Council enforcement of the Act. The additional HSNO Act obligations assigned to the Authority and the associated activity has no funding attached to it. In practice, the additional function – responsibility to enforce the discharge of hazardous substances from aircraft – has the potential to significantly increase the Authority's investigation and enforcement activities, particularly with respect to agricultural aviation.

The Authority has no other Government funding that it can reasonably reprioritise to meeting the new HSNO obligations. A budget bid will be submitted to allow those obligations to be met.



⁹ CAA has completed profiles for agricultural aviation, and is working on profiles for the commercial helicopter sector, small, medium and large aeroplanes.

Appendix 2: Facts & figures 2016/17

NEW SOUTHERN SKY

**2.2
million**

**passengers per annum
better protected** by the
roll-out of Performance
Based Navigation (PBN)



**4.2
million**

kgs per annum less of CO₂
into the atmosphere as a
result of reduced fuel burn
from the roll-out of PBN



SCREENING AND SEARCHES



**13.4 million international
and domestic
passengers screened**



**65,943 proactive
Explosive Detector
Dog Unit searches**

APPLICATION/CERTIFICATION/LICENSING STATS

354

Aviation Related
Concerns investigated



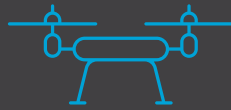
626

audits, inspections and
investigations conducted to
monitor adherence to safety
and security standards

INTERESTING FACTS ABOUT THE AVIATION SYSTEM

303

UAVs (drones) used in certificated operations



9,159

active pilots



AVIATION-RELATED ECONOMIC STATISTICS



\$8 billion

of goods exported by air



KEY DATES FOR THE AUTHORITY 2016-2017

August

First certification in New Zealand

under Safety Management Systems (SMS) rules



September

End of the Winter season of air transport night flights in Queenstown



October

Memorandum of Understanding

allowing students to be trained in the Authority's flight training syllabus signed with the Vietnam Civil Aviation Authority



April

The Authority ranked in **TOP 10**

for leadership/success in Public Sector Reputation Index

www.colmarbrunton.co.nz/public-sector-reputation-index/



March

Agreement between the Civil Aviation Administration of China and the Authority to allow New Zealand companies easier access to Chinese markets



November

A trial delivery of pizza by an Unmanned Aerial Vehicle (UAV) took place

Head office of the Authority evacuated following 7.8 magnitude earthquake



REGISTERED AIRCRAFT UNDER THE AUTHORITY

5,100

Total Aircraft (approx)

39%

are standard category aeroplanes

Refer to appendix 5 for more information on participants



17%

are helicopters



Appendix 3: How we work and what we do

WE WORK IN A GLOBALLY CONNECTED AND COMPLEX ENVIRONMENT.
WE COLLABORATE AT ALL LEVELS TO ENSURE SAFETY AND SECURITY.

Advisory Circulars



- Guidance material associated with specific rule parts.
- ACs detail acceptable means of compliance, and are not mandatory.

CAA Notices

- Provided by the Act as a responsive and adaptable means for setting detailed requirements.
- Notices can only be developed within the Authority and scope of an empowering rule.
- Specifies requirements that must be complied with, and are mandatory and enforceable.

Transport Accident Investigation Commission (TAIC)

- TAIC is responsible for the independent investigation into the causes of transport incidents and accidents, including aviation, aiming to avoid future accidents. It does not apportion responsibility.
- TAIC chooses which accidents to investigate and makes recommendations it believes will improve safety.
- Any recommendations made to the Authority by TAIC or Coroners are considered and a judgement made whether regulatory action is justified.

The Authority

- The Authority investigates a variety of accidents and occurrences as the aviation regulatory agency.
- Focused on identifying precursors to incidents and accidents.
- Undertakes regulatory actions (including prosecutions) where necessary.

Health and Safety and hazardous substances

- The designated agency under the Health and Safety at Work Act 2015 for:
 - work to prepare an aircraft for imminent flight;
 - on board an aircraft for the purpose of imminent flight or while in operation; and
 - aircraft as workplaces while in operation.
- We are the enforcement agency under the Hazardous Substances and New Organisms Act 1996 for hazardous substances in, on and discharged from (civilian) aircraft.

Civil Aviation Act 1990

- Ensures that New Zealand fulfils its obligations under international aviation law.
- Establishes the rules of operation and divisions of responsibility within the civil aviation system.
- Gives the Director of Civil Aviation powers independent of the Minister and the Board in specific cases.
- Requires that Civil Aviation Rules be consistent with ICAO SARPs to the extent that these have been adopted by New Zealand.

Civil Aviation Rules

- Adopt ICAO's Standards and Recommended Practices.
- Set common minimum standards for entering and operating within the civil aviation system.
- Made by the Minister of Transport under the Civil Aviation Act 1990 based on a programme approved by Cabinet.



Other Tools

- We share knowledge from safety investigations;
- work with industry to facilitate trainings, outreach and workshops;
- utilise new processes/systems/technologies to improve safety and security and influence sector behaviour.

Stakeholder Engagement

- We work closely with industry and the recreational sector to obtain advice on issues affecting aviation safety, security and the aviation operating environment.
- We carry out targeted engagement on priority issues.
- Works closely with the Aviation Community Advisory Group (ACAG) on policy and rule.

Ministry of Foreign Affairs and Trade

We work closely with MFAT to promote and develop international agreements that support New Zealand's national and economic interests.

Ministry of Transport

- Government's principal adviser on transport policy, funding and governance.
- Ministry of Transport contracts and pays the CAA to draft Civil Aviation Rules.
- Provides transport sector leadership and coordination.

Border Agencies

- Avsec works closely with Police and government border agencies such as Customs, Immigration and the Ministry of Primary Industries, including sharing intelligence and data.
- Avsec's focus is on departing passengers.

Maritime New Zealand

If the threat level at a particular port justifies additional security measures, Avsec provides trained maritime security services such as passenger screening, for example at the Port of Auckland during the cruise ship season.

Service Providers

The Authority certifies and regulates Airways New Zealand and MetService.

Compliance with ICAO SARPs

International Civil Aviation Organization (ICAO)

- Specialised Agency of the United Nations.
- Administers the 1944 Convention on International Civil Aviation and its 19 Annexes.
- 191 Member States.
- Develops international Standards and Recommended Practices (SARPs) contained in the Annexes that member States then use to develop national civil aviation regulation.
- New Zealand must secure, to the highest degree practicable, compliance with ICAO's SARPs.



State to State Relationships

New Zealand has a number of safety and technical agreements/arrangements with others countries and aviation agencies e.g. Australia, Europe, United States, China, Vietnam and Canada.

Pacific Aviation Safety Office (PASO)

- Provides aviation technical services to 13 member States.
- New Zealand is an observer to PASO and provides expertise and support as needed.
- Signatory to the Pacific Islands Civil Aviation Safety and Security Treaty.

Pacific Support

- New Zealand has arrangements or agreements to provide technical advice and assistance on request with PASO, Tonga, Cook Islands, Niue and Samoa.
- The Authority works in partnership with the Pacific region authorities and airlines in relation to the provision of aviation security training, equipment and strategic co-ordination.

Investigation

Pacific Support and Engagement

Appendix 4: Staff numbers and funding

STAFF

Regulatory function:

The Authority has 259 full-time equivalent employees and a total headcount of 281.5. Most 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:

Avsec has 938 full-time equivalent employees. Most are front-line service delivery staff, based in airports around the country, with a small management team based in Wellington.

Funding

To ensure we have sufficient revenue to sustainably fund our regulatory functions and security services, and continue to improve our safety and security regulatory oversight, the Authority undertakes a comprehensive funding review each three years, or as required in response to changes in passenger volumes and our operating environment. Given that it is required to keep separate accounts for its two operating arms, it attempts to phase the reviews so that one is done each 18 months.

The most recent Authority funding review was approved by Cabinet in February 2017 and came into effect 1 July 2017. A review of Avsec funding was recently initiated.

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.

	REVENUE PERCENTAGE	
	THIRD PARTY CONTRIBUTION	CROWN CONTRIBUTION
The Authority (CAA & Aviation Security Service combined)	95.2%	4.8%
The CAA (regulatory function)	87.7%	12.3%
The Aviation Security Service	99.8%	0.2%

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 Civil Aviation Authority.

OUTPUT CLASS FUNDED THROUGH

1. Policy and Regulatory Strategy

- International relations and ICAO obligations
- Ministerial servicing
- Policy advice
- System level design and intervention
- Rules and Standards Development
- Pacific support
- Crown Funding
- Ministry of Transport contract revenue
- Levies
- Fees and charges

2. Outreach

- Levies
- Other revenue

3. Certification and Licensing

- Levies
- Fees and charges
- Other revenue

4. Surveillance and Investigation

- Crown funding
- Levies
- Fees and charges
- Other revenue

5. Security Service Delivery

- Screening activity
- Audit performance; access control; and maritime security services
- Contracted services
- Passenger security charges
- Crown funding – Maritime
- Other revenue

Appendix 5: Aviation sector profile

Aviation in New Zealand is characterised by the high number and wide variety of operations considering the size of the country and its population. The aviation sector is comprised of a variety of sub-sectors, each with unique characteristics and challenges, personnel, operators and various supporting infrastructure.

We have one of the highest rates of aircraft and pilot licences per capita in the world. This reflects the importance that aviation plays in the way we do business, and the way our topography influences our domestic travel choices and use of aviation for recreation and commerce.

Aircraft operated in New Zealand

New Zealand has 5,100 aircraft on the register at present, up from 4,453 in July 2010, an increase of 14%.

Much of that increase has occurred in the commercial helicopter sector and sport aircraft sector, with a 32.7% increase. While these are generally one or two-seat aircraft, the number of people flying them privately, and being flown in them commercially has increased, particularly with the introduction of Part 115 adventure aviation rule in 2011.

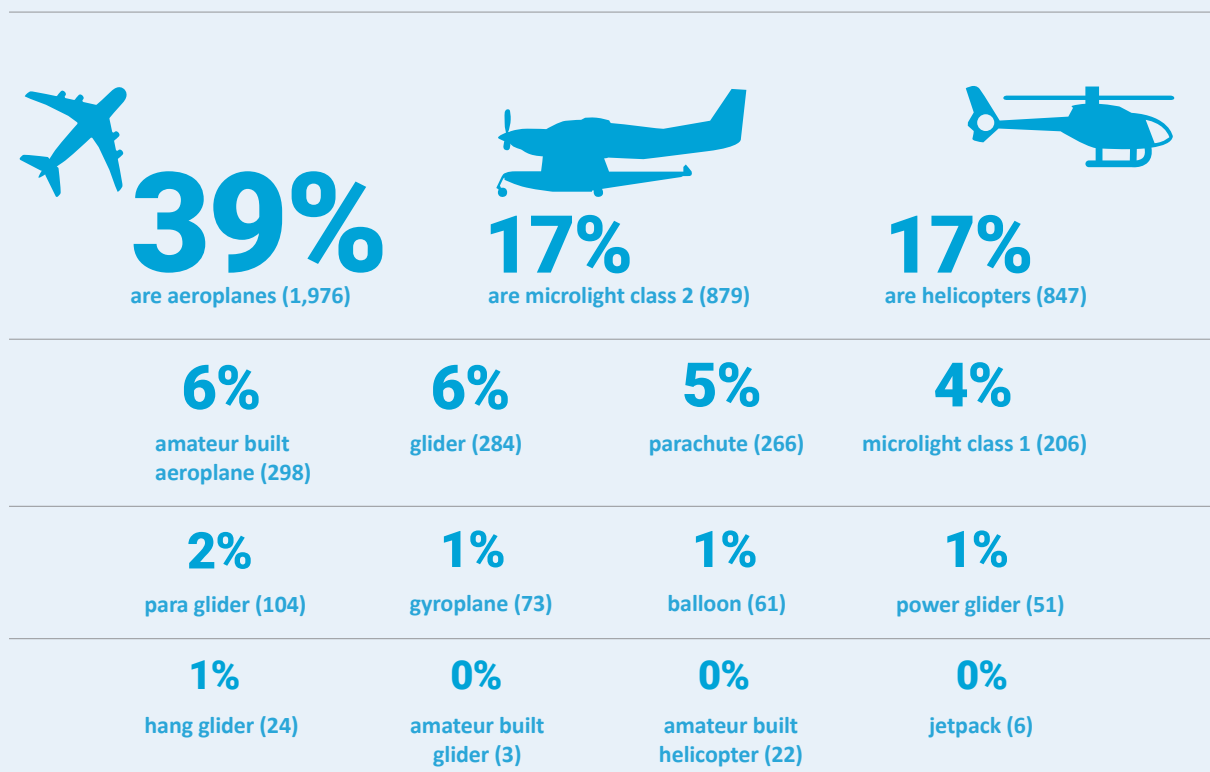
There are 303 unmanned aircraft registered with the Authority.

One of the key elements of our intelligence function is to identify where the risks in the system are emerging. Accident and incident data show that sport aviation is higher risk, demanding different approaches from the regulator, without stifling participation.

Sector cohorts

The characteristics of New Zealand aviation sector are changing, in particular the emergence of the sport aircraft commercial sector with an increase of 155% since its introduction in 2011. Commercial helicopters have increased by 90%. Both present unique safety and regulatory oversight challenges for the regulator. In contrast, the number of private helicopters dropped by 33%.

New Zealand has 5,100 aircraft on the register at present



INDUSTRY

Airline transport

This sector consists of relatively few operators under two types of certificate, operating large aircraft used on scheduled regular public transport operations both internationally and domestically.

Activity

Reported flight hours have remained steady, averaging around 362,000 hours of flight per year.

NUMBER OF OPERATORS:

Medium Aircraft Operators	13
Large Aircraft Operators	6

Safety performance

There are many different measures of safety. To illustrate the safety profile over the industry sectors, we have focused on two measures – the rate of aircraft accidents per 100,000 flying hours and the social cost per 100,000 flying hours.

SOCIAL COST

Rate of aircraft accidents per 100,000 flying hours (3-yearly)

AVIATION SAFETY TARGET GROUPS	FOR THE YEARS ENDED 30 JUNE							AVERAGE MOVEMENT AGAINST PREVIOUS YEAR (2012-2017)
	2011	2012	2013	2014	2015	2016	2017	
Public air transport								
1. Airline operations – large aeroplanes	0.62	0.52	0.30	0.40	0.49	0.60	0.40	(0.04)
2. Airline operations – medium aeroplanes	1.70	2.23	1.04	0.53	0.70	0.77	0.94	(0.13)

Social cost¹⁰ per 100,000 flight hours (\$)

AVIATION SAFETY TARGET GROUPS	FOR THE YEARS ENDED 30 JUNE						
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Public air transport							
1. Airline operations – large aeroplanes	-	0.02	0.01	0.39	0.03	-	0.40
2. Airline operations – medium aeroplanes	-	-	-	-	-	-	-

E.g., the social cost of 100,000 flight hours by an aircraft that falls under large aeroplanes was 40 cents in 2016/17.

¹⁰ Social cost per unit of person exposure is defined as an economic measure of the cost of aviation to the nation. It assigns values to any deaths, rehabilitation costs from injuries, cost of property damaged or lost, and other specific external costs. The gross social cost calculated is pro-rated over the volume of aviation activity in any specified sector of the aviation community. The volume of aviation activity, the unit of person exposure, is per seat flying hour. For target groups that are not predominantly passenger carrying, a surrogate of 500 kg of aircraft weight assessed as being the equivalent of an occupied seat. For sport groups, calculation of social cost is based on estimates of aviation activity. The social cost of an aviation accident is based on the figure of established and used by the Ministry of Transport in their annual 'social cost' report.

Social cost per 100,000 flight hours (\$)



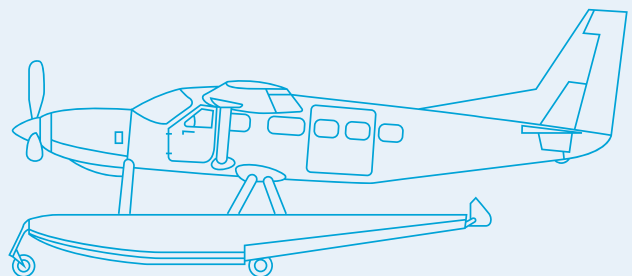
AVIATION SAFETY TARGET GROUPS							
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Public air transport							
1. Airline operations – small aeroplanes	-	0.33	2.12	1.96	14.10	-	-
2. Airline operations – helicopters	0.55	0.64	11.69	18.01	11.82	37.29	2.69
3. Adventure aviation transport operations	-	-	2.16	11.9	25.69	6.08	21.38
Other commercial operations							
4. Other commercial operations – aeroplane	17.34	0.06	0.07	3.92	-	-	0.23
5. Other commercial operations – helicopter	31.47	22.82	0.51	2.12	52.98	0.99	17.06
6. Agricultural operations – aeroplane	-	-	13.02	3.63	1.68	-	22.80
7. Agricultural operations – helicopter	1.97	8.21	-	12.9	9.42	0.74	14.14
8. Agricultural operations – sport aircraft	-	-	-	-	-	-	-
Non-commercial operations							
9. Private operations – aeroplanes	0.50	22.6	1.34	13.12	54.21	0.15	3.77
10. Private operations – helicopters	55.05	-	55.03	46.17	31.46	28.3	38.69
11. Private operations – sport aircraft	-	-	-	94.41	242.52	166.33	296.30

Aviation infrastructure and personnel

This includes a network of international and domestic airport operators, an air navigation service provider (Airways New Zealand) and number of other service providers including MetService and Avsec.

Aviation infrastructure

AVIATION DOCUMENT	TOTAL CURRENT OPERATORS	DESCRIPTION
Part 109 Regulated Air Cargo Agent	65	All international cargo must have security controls applied to it by an airline or a 'Regulated Air Cargo Agent'.
Part 139 Aerodrome	27	Aerodromes include small general aviation airfields, large commercial airports, and military air bases.
Part 140 Aviation Security Organisation	1	Avsec is the provider of aviation security services.
Part 145 Maintenance Organisation	53	Organisations conducting maintenance on aircraft.
Part 147 Maintenance Training Organisation	2	Aircraft maintenance training providers.
Part 148 Manufacturing Organisation	17	Organisations that manufacture or carry out limited manufacturing tasks in the production of aircraft components.
Part 171 Aeronautical Telecommunication Service Organisation	2	Aeronautical telecommunication services in support of the New Zealand civil aviation air navigation system.
Part 172 Air Traffic Service Organisation	1	Organisations providing air traffic services. Currently only Airways New Zealand.
Part 174 Meteorological Service Organisation	2	Meteorological services in support of the New Zealand civil aviation air navigation system. Currently MetService.
Part 175 Information Service Organisation	2	Aeronautical information services in support of the New Zealand Flight Information Region and areas of the Auckland Oceanic flight information region for which New Zealand has a responsibility.
Part 19F Supply Organisation	46	Supply of aeronautical products.
Part 92 Dangerous Goods Packaging	61	Transit of dangerous goods in aircraft.



Aviation personnel

Pilot Licence:

LICENCE TYPE	LICENCES WITH A CURRENT MEDICAL
Airline Transport Pilot Licence (Aeroplane)	2124
Airline Transport Pilot Licence (Helicopter)	133
Commercial Pilot Licence (Aeroplane)	2961
Commercial Pilot Licence (Balloon)	18
Commercial Pilot Licence (Glider)	4
Commercial Pilot Licence (Helicopter)	1153
Private Pilot Licence (Aeroplane)	1942
Private Pilot Licence (Glider)	4
Private Pilot Licence (Helicopter)	412
Recreational Pilot Licence (Aeroplane)	404

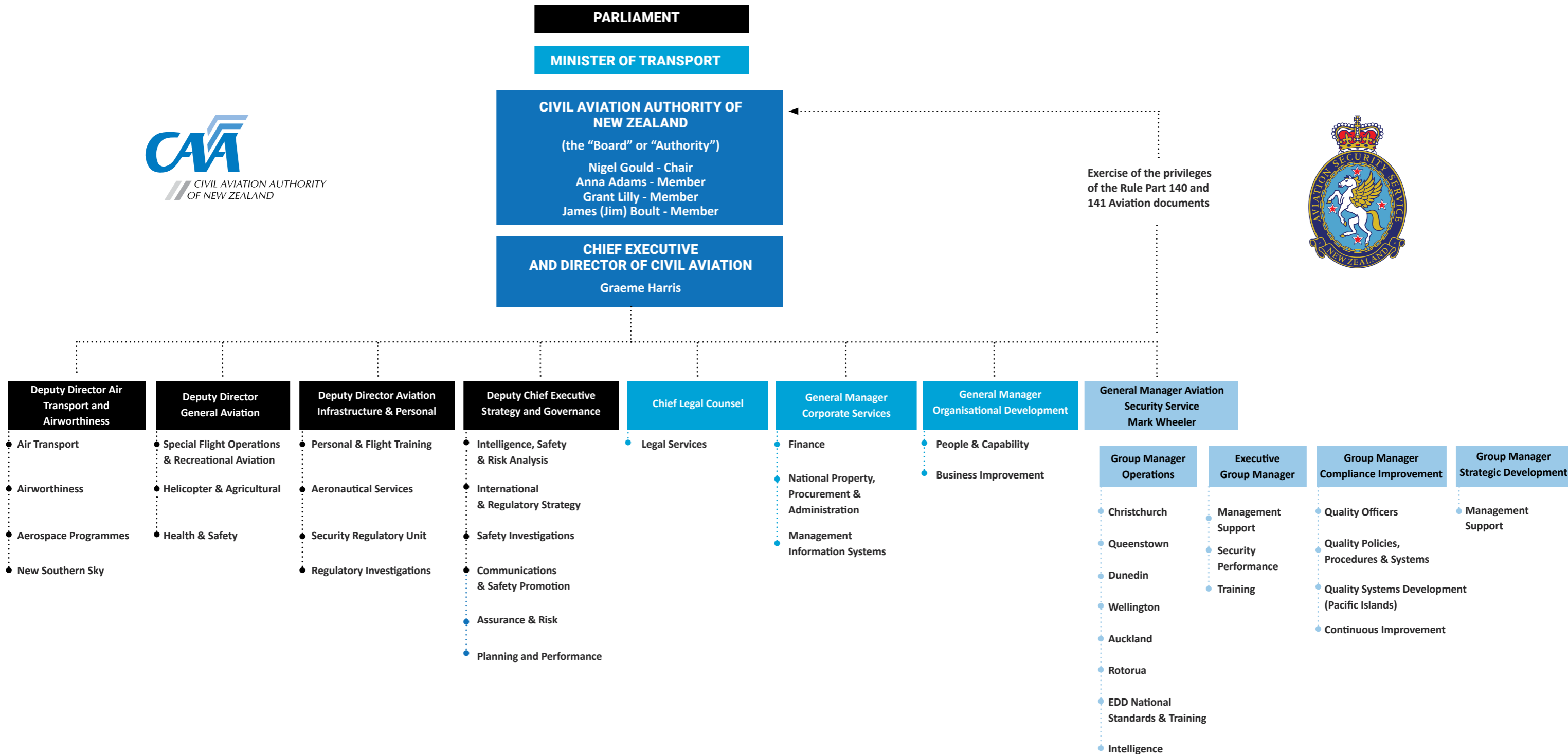
Air Traffic Licences:

LICENCE TYPE	LICENCES WITH A CURRENT MEDICAL
Air Traffic Controller Licence	364
Air Traffic Trainee Licence	198
Flight Service Operator Licence	10
Flight Service Trainee Licence	9

Engineer Licences:

LICENCE TYPE	TOTAL LICENCES
Part 66 Aircraft Maintenance Engineer	2852
Part 66 Certificate of Inspection Authorisation	201
Part 66 Certificate of Maintenance Approval	258

Appendix 6: Organisational structure and Authority contacts



CIVIL AVIATION AUTHORITY OF NEW ZEALAND AND AVIATION SECURITY SERVICE

Chief Executive and Director of Civil Aviation	Graeme Harris	DDI: 04 560 9404 Mobile: [REDACTED] Email: graeme.harris@caa.govt.nz
Deputy Chief Executive	John Kay	DDI: 04 560 9447 Mob: [REDACTED] Email: john.kay@caa.govt.nz
General Manager Aviation Security Service	Mark Wheeler	DDI: 04 560 9443 Mobile: [REDACTED] Email: mark.wheeler@avsec.govt.nz

Redactions made in accordance with section 9(2)(a) of the Official Information Act 1982

AUTHORITY BOARD

The Authority Board is made up of five independent non-executive members appointed by the Minister of Transport. 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. There is currently one vacancy following the resignation of the Deputy Chair, Peter Griffiths, in September 2017.

Nigel Gould	Chair	DDI: [REDACTED] Mobile: [REDACTED] Email: [REDACTED]
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A qualified chartered accountant, Nigel has had a career in finance and establishing businesses in information technology, farming, and more recently, tourism. Nigel holds several governance positions in the private sector, and in 2011 was appointed Chair of the Board.

Anna Adams	Member	Mobile: [REDACTED] Email: [REDACTED]
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Anna is a lawyer, partner and Chair of the Board of law firm Meredith Connell, where she leads the public law and health law team. Anna's legal career has involved public and local government law, regulatory law, judicial review, civil litigation, inquests and criminal prosecution. Anna is a member of the Auckland Medico-Legal Society Committee and the Advisory Council to the Human Rights Lawyers Association. Anna was appointed to the Board in May 2017.

Redactions made in accordance with section 9(2)(a) of the Official Information Act 1982

Grant Lilly	Member	DDI: [REDACTED] Mobile: [REDACTED] Email: [REDACTED]
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Grant has had an extensive career in senior roles with Air New Zealand and Qantas Airways. He has a portfolio of governance appointments in central government, local government and corporate entities, and industry associations. Grant was appointed to the Board in 2011.

James (Jim) Boulton	Member	DDI: [REDACTED] Mobile: [REDACTED] Email: [REDACTED]
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Jim has served as the Mayor of Queenstown since 2016 and was Chief Executive of Christchurch International Airport Ltd (CIAL) and a Crown appointee to the CIAL Board for the previous six years. Jim has been Director, Managing Director and Chair of several substantial public and private companies and was appointed to the Board in 2013.



Aviation Security Service
— *Kaitiwhakamau Rererangi* —

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