Briefing for the Incoming Associate Minister of Transport

Organisation Civil Aviation Authority of New Zealand

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under sections 9(2)(c) and (9)(2)(f)(iv) of the Official Information Act 1982.

Purpose

The purpose of this document is to provide an overview of:

- the Civil Aviation Authority (CAA);
- the New Zealand aviation sector;
- key projects;
- strategic priorities;
- regulatory responsibilities; and
- the organisational structure of the CAA

Executive Summary

The Civil Aviation Authority (the Authority) is a Crown entity established under the Civil Aviation Act 1990 that performs aviation safety and security regulatory functions and delivers aviation security services at airports.

A five-member **Board** appointed by the Minister of Transport governs the Authority¹:

 Nigel Gould (Chairman), Peter Griffiths (Deputy Chairman), John Bartlett, Grant Lilly and Jim Boult.

The Board appoints the **Chief Executive/Director of Civil Aviation** who is assigned independent statutory powers in the Civil Aviation Act (1990). These powers relate to the control of entry into the civil aviation system, and the monitoring of adherence to safety and security requirements. The Chief Executive/Director is supported by a Deputy Chief Executive, three sector specific Deputy Directors, the General Manager Aviation Security Service, General Managers for Corporate Services and Organisational Development, and a Chief Legal Counsel. Graeme Harris has held the position of Chief Executive/Director since April 2012.

Over the last four years, the Authority has undertaken a significant organisational performance improvement programme. The programme focused on building the Authority's regulatory capability and driving improvements in both organisational efficiency and effectiveness with respect to each of its core functions.

Following significant change in the senior management of the Authority in recent years, there has been a significant focus on bringing the functional arms of the organisation closer together and building capability and capacity within those functions. The Authority is now an organisation capable of effectively delivering in an increasingly efficient way.

The Authority has adopted "safe and secure skies to help New Zealand fly" as its mission statement and has committed to working to support a vibrant aviation system. In practice, this has added a focus on supporting the economic contribution of the sector to the extent that is possible without conflicting with its mandated role in ensuring the safety and security of the sector.

¹ Board profiles can be found in the 2015/16 Annual Report

The Authority has a number of **key projects** underway, each of which has the potential to yield significant gains in the civil aviation sector:

- 1. A Triennial Review of the CAA's funding framework and levies, fees and charges
- 2. New Southern Sky programme
- 3. The introduction of risk-based regulation for the civil aviation system
- 4. A review of fatigue risk management in aviation
- 5. Monitoring and responding to the growth of remotely piloted aircraft systems (RPAS)
- 6. Audit of New Zealand by the International Civil Aviation Organization
- 7. The Authority's Regulatory Craft Programme
- 8. The Civil Aviation Reform Act (led by the Ministry of Transport)
- 9. 'Clear Heads' drug and alcohol management

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Each of these are important to the aviation system sustaining and improving its safety and security performance, and to safe and efficient integration of new types and forms of civil aviation activity.

Redacted under sections 9(2)(c) and (9)(2)(f)(iv) of the Official Information

The Authority helps to develop and amend **Civil Aviation Rules** under a contract with the Ministry of Transport. The number of new rules able to be introduced each year, or changes made, is falling behind the demand driven by international requirements and changing technology. This is of concern to the Authority, as there is the potential for a widening gap between international and domestic expectations and the actual rule set. The Authority is working with the Ministry to find ways of addressing this issue.

More information about the Authority and the work it is engaged in can be found in the following documents on line:

- Statement of Intent 2016//2026²
- 2015/16 Annual Report³
- Statement of Performance Expectations 2016/174

² Statement of Intent 2016 – 2026 https://www.caa.govt.nz/publicinfo/SOI 2016-2026.pdf

³ 2015/16 Annual Report http://www.caa.govt.nz/assets/legacy/about-caa/Annual Reports/CAA-Ann-Rep-2016.pdf

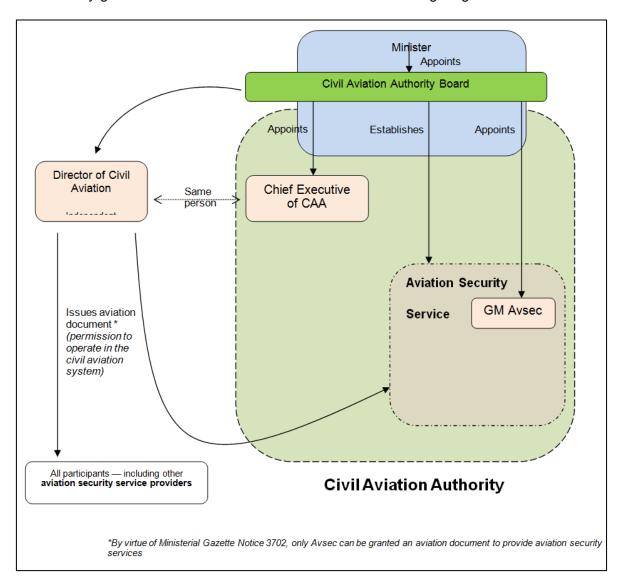
⁴ Statement of Performance Expectations 2016/17 http://www.caa.govt.nz/assets/legacy/publicinfo/Perform Expect 2016-2017.pdf

The Civil Aviation Authority

The Authority is a Crown entity that performs two sets of functions:

- The Civil Aviation Authority (CAA) exercises the regulatory functions that are the statutory responsibility of the Authority and the Director of Civil Aviation. The Director of Civil Aviation has independent powers under the Civil Aviation Act relating to the discharge of regulatory functions.
- The Authority is also charged with establishing the Aviation Security Service
 (Avsec) which provides aviation security services at airports and air navigation
 facilities. The Director approves and regulates Avsec's operations in accordance with
 Civil Aviation Rules.

The Authority governance structure is summarised in the following diagram:



There are clear separations between the operational management of Avsec and the assurance processes used by the CAA with respect to how well Avsec carries out its activities. There is a direct reporting line from the General Manager Aviation Security Service to the Board regarding the aviation documents held by Avsec. All other aspects of the General Manager Aviation Security Service's role report via the Chief Executive of the

Authority (see Appendix B). There are inherent conflicts of interest, primarily at Board and Chief Executive level, in the Authority structure established by the Civil Aviation Act. The current work on the Civil Aviation Reform Act is intended, in part, to remove those conflicts.

While the Authority performs a range of functions, it has common support services (finance, human resources and information systems). These are formally located within the CAA and support both functions.

The Role of the Authority as the Safety and Security Regulator

The Authority regulates aviation safety and security. The following diagram depicts the Authority's approach to regulation.

The Authority's regulatory functions ensure that New Zealand's civil aviation system is:

- robust and responsive to technological, environmental and human change;
- respected internationally; and
- applies an appropriate level of safety and security for the New Zealand public.

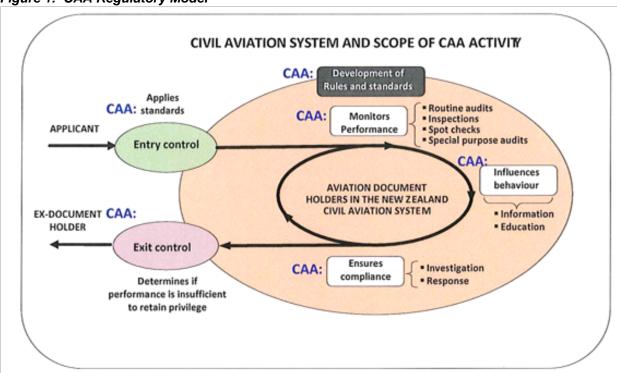


Figure 1: CAA Regulatory Model

Organisations or individuals wishing to operate within the civil aviation system must first demonstrate they meet the relevant standards set out in the Civil Aviation Act and in Civil Aviation Rules — this is the entry stage. The process of evaluating whether an organisation may enter is the certification stage. For an individual, such as a pilot or engineer, the process is referred to as licensing. For both organisations and individuals, the CAA issues an 'aviation document' that sets out the nature of the privileges the organisation or individual is allowed to exercise within the civil aviation system.

Following entry, document holders must meet the standards set out in the Civil Aviation Act and the Civil Aviation Rules. The CAA's role includes monitoring compliance. The CAA uses a mixture of auditing and inspection techniques to gain assurance that document

holders are conforming to the rules. While the Civil Aviation Rules set the boundaries of the system, the Act also creates the concept of shared responsibility. This is an explicit requirement and recognises that the regulator cannot be everywhere at all times.

If an audit or inspection finds that a document holder is not conforming, the CAA will require the document holder to correct the issue(s). If the non-conformance is serious, the CAA can initiate action to either limit the nature of the activities undertaken (thereby reducing the safety risk) until a satisfactory correction is made or, in the worst case, remove the operator or individual from the civil aviation system.

In addition to those two primary tools, the CAA seeks to influence behaviours through information and education, referred to as outreach programmes. The CAA also has various investigation powers and functions to establish, on the balance of probability, the causes of an incident or accident (a safety investigation); or determine whether evidential thresholds have been met to warrant use of the offence provisions set out in the Civil Aviation Act.

Regulatory Approach

The CAA has issued a document that describes the way in which it undertakes its regulatory task — the *Regulatory Operating Model.*⁵ The model describes how the CAA uses regulatory tools to encourage the regulated parties (participants and document holders) to meet or exceed the standards set out in Civil Aviation Rules. A critical element to the model is an assessment of individuals' and organisations' behaviours and attitudes. The willingness of an individual to comply with the rules will affect what actions the CAA takes to enforce the rules. However, underlying the model is the need for sufficient corroborated evidence to justify the CAA's actions.

The Role of the Aviation Security Service

The Authority has a function to establish and maintain an aviation security service, which it does by operating Avsec. Avsec is a service delivery unit and provides security services at aerodromes and air navigation facilities. This involves the provision of screening points at airports and baggage screening and other security services at aerodromes, such as bomb detection.

Avsec holds an aviation document, issued by the Director of Civil Aviation, and is the only organisation in New Zealand that holds the requisite certificate for the services it provides. In order to manage potential conflicts of interest, operationally Avsec is managed separately from the CAA and has separate financial accounts.

More specifically, Avsec provides security services at security designated airports. These are airports with either international services or regular domestic services using aircraft with 90 or more passenger seats for which passenger screening is required. Currently there are five security-designated airports in New Zealand: Auckland, Wellington, Christchurch, Dunedin and Queenstown.

The Aviation Sector

There is a high level of participation in aviation in New Zealand, with approximately one aircraft per thousand people in this country — one of the highest aircraft per capita ratios in the world. As at July 2016, there are 5,021 aircraft registered in New Zealand or operating under CAA certification.

⁵ Available at http://www.caa.govt.nz/Policy ops/Regulatory Op Model.pdf

The aviation community can be divided into:

- the **airline sector**, operating large aircraft used on scheduled regular public transport operations both internationally and domestically. There are approximately 136 large aircraft registered in New Zealand. Close to 69 medium aircraft, carrying between 10 and 30 people, are also part of the commercial fleet;
- the general aviation sector that includes approximately 4,300 aircraft with a take-off
 weight under 5700 kg, or less than 10 passenger seats. This group includes smaller
 freight and passenger carrying services, commercial adventure aviation, helicopter
 and agricultural operations, and a growing sport and recreational community. The
 latter group is very active, with approximately 1,900 registered sport aircraft;
- an **emerging sector** with remotely piloted aircraft systems (RPAS) 'drones' and rockets; and
- **infrastructure** including 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.

Safety Performance

The overall accident rate in New Zealand in 2016 (January to September) stands at 4.22 accidents per 100,000 flying hours. In an average year, the CAA conducts 648 safety and regulatory investigations, and takes action (from a review to a full investigation), on 715 aviation accidents or incidents.

The CAA investigates a variety of accidents and occurrences in its capacity as the regulatory authority. The Transport Accident Investigation Commission (TAIC) is responsible for the independent investigation of significant aviation accidents and incidents, and makes recommendations to improve safety.

In New Zealand, most accidents occur in the sport and recreation sector of aviation — those operations not conducted for hire or reward. In 2016 (January to September), 44 out of 62 accidents (71%) involved sport and recreation aircraft. For the year ending December 2015 the proportion was 65%.

Key Projects

The CAA is involved in the following key projects, some of which may require your input.

Civil Aviation Authority Funding Review

The Authority reviews its fees charges and levies on a three-yearly basis. The last review was approved by government 2011 and came into force in 2012. The fees, charges and levies are set by way of regulation, under the empowering authority of the Civil Aviation Act. In essence, the Act provides for the cost of the Authority's regulatory and security services activity to be recovered from those who are considered to benefit from the service delivered.

Cabinet agreed to a 'first principles' approach for reviewing the CAA's funding in 2014. This was to address concerns raised by civil aviation system participants that the last review resulted in unfair or unwarranted changes to fees, charges and levies. These concerns were expressed through various means including the media, general complaints and an unsuccessful complaint to the Regulations Review Committee.

The review involved two phases of consultation. The first phase was completed in August 2014 and focused on 'who pays for what'. It considered the economic character of the benefits derived from a specific activity and the public-private split. If the activity is determined to have private good characteristics, the organisation or individual should pay for the full costs of the services rendered. If an activity is determined to have public good characteristics, then less direct cost recovery mechanisms are considered appropriate, such as generalised levies.

The second phase looked at how much is charged for each regulatory activity given the feedback from the first round of consultation. Following wide consultation around the country on funding review proposals, the Authority considered all 111 submissions received and revised its proposals accordingly.

Departmental consultation on the funding review's Regulatory Impact Statement and associated Cabinet paper was completed in December 2016. The Authority understands that the consultation did not result in any adverse comment. Work continues to make the necessary business design changes required by the Authority's systems and operational teams to manage the invoicing and processing of the new Activity Levies.

The Authority is continuing to work towards a 1 July 2017 implementation date, although the timeframe for implementation is tight.

New Southern Sky — Implementing the National Airspace and Air Navigation Plan

The Authority has developed a detailed National Airspace and Air Navigation Plan (the Plan) that was approved by Cabinet in June 2014 and progressed as the New Southern Sky (NSS) programme.

NSS focuses on modernising New Zealand's aviation system. It covers eight key areas: navigation, surveillance, communications, aeronautical information, air traffic management, airspace design, aerodromes, and meteorological services. The programme is led by the Authority, supported by Airways New Zealand and the Ministry of Transport, and reports to the Authority Board.

The NSS programme includes a governance group charged with programme oversight and benefit delivery, and a working group comprising 13 separate agencies representing the civil, military, recreational and commercial aviation sectors in New Zealand, and our global operators.

The current regulatory priorities under NSS are the introduction of new Civil Aviation Rules governing navigation using the global positioning system (GPS), and surveillance: tracking aircraft to ensure they are safely separated in controlled airspace. These proposals were approved for rule development by the Economic Growth and Infrastructure Committee in September 2016 and will be provided to you for signing in the fourth quarter of the 2016/17 year. These rule projects are listed on the Transport Rules Programme as Mandate Automatic Dependent Surveillance – Broadcast (ADS-B) under Flight Level 245, and Global Navigation Satellite Systems (GNSS) under Instrument Flight Rules (IFR).

The Authority commissioned a cost:benefit analysis in 2014 and reviewed that analysis in 2015. The indications were for a net benefit of approximately \$2 billion, including \$178 million directly attributable to the programme. The Authority has commissioned a new cost:benefit analysis, focusing on performance metrics and benefit delivery, to be conducted by an independent analyst in early 2017. We anticipate that the earlier results will change as observed facts replace the assumptions used earlier in the programme.

Stakeholder engagement is a priority for the NSS programme, particularly with the widely varied general aviation (non-commercial) sector.

Introduction of Risk-Based Regulation Rule Part 100: Safety Management

A Safety Management System (SMS) is an International Civil Aviation Organization (ICAO) recommended formal risk management framework to improve safety. New Zealand's SMS Rule Part 100, *Safety Management*, was signed by the then Associate Minister of Transport on 7 December 2015 and came into effect on 1 February 2016.

Its high-level performance-based principles define the management outcomes expected to achieve increased safety performance. It also provides the flexibility for organisations to adapt to the future and to scale SMS to their needs and circumstances.

Under SMS, service providers have systems for hazard identification and risk management; safety targets and reporting processes; and procedures for audit, investigations, remedial actions, and safety education. SMS is intended to be a comprehensive and scalable safety system that suits the size of the organisation or service provider.

An SMS consists of 13 elements derived from ICAO Annex 19 Safety Management and Doc 9859 Safety Management Manual and supplemented by the CAA's own existing requirements. Following consultation on Part 100, Safety Management and workshops with industry, the supporting Advisory Circular (AC) 100-1 Safety Management was revised. Additional information on acceptable means of compliance and guidance was included to assist service providers with their SMS implementation planning to meet the requirements of Part 100, Safety Management.

A range of New Zealand-specific resources have been developed by the Authority to assist service providers adopt an SMS. This includes an SMS implementation strategy, educational and guidance material, and industry SMS implementation and development workshops around New Zealand with service providers and industry.

State Safety Programme

A State Safety Programme (SSP) is a formal framework for a State to manage aviation safety and achieve an acceptable level of safety performance. An SSP is intended to both establish the safety levels and systems for a State, and also to guide aviation participants in the development of their own SMS.

In collaboration with the New Zealand Ministry of Transport, the Authority produces and maintains New Zealand's SSP. New Zealand's SSP is currently being updated to ensure it reflects changes and initiatives at the domestic and global levels.

A number of activities the Authority has led or been involved in contribute to the SSP. For example, the introduction and adoption SMS, the current review of the Civil Aviation Act 1990 and the CAA's shift to risk-based regulatory oversight of New Zealand aviation are all components of the SSP.

Fatigue Risk Management

The Authority is evaluating the way fatigue is managed in aviation and considering whether improvements are needed to ensure the regulatory framework is fit for purpose across different sectors. Fatigue has been a major contributing factor in a number of New Zealand aviation incidents. New Zealand's fatigue management rules were set over 20 years ago. It is time to review these through a collaboration with industry and subject matter experts.

Fatigue is a complex issue that does not have simple solutions and a multi-pronged approach is likely to be the most effective. The following issues are being considered:

- prescriptive duty times;
- performance-based standards, including options for a Fatigue Risk Management System (FRMS); and
- non-legislative interventions around education, monitoring and reporting of fatigue.

Consultation with industry is underway on the Authority's analysis completed to date, to help define policy proposals and possible rule options and to help identify the costs/impacts on industry. The CAA is not proposing a final decision at this time. We will keep you updated if this issue progresses towards rule development.

Remotely Piloted Aircraft Systems

Traditionally used in military contexts, remotely piloted aircraft systems (RPAS) are increasing being used in civil aviation, such as in search and rescue, agricultural-spraying, aerial-mapping, photography, and a wide range of other commercial and recreational activities. As such, RPAS embody new technologies giving rise to different types of aviation safety risk and are being used by individuals and organisations that are not traditionally engaged in the civil aviation system.

The government introduced new RPAS rules in August 2015 in order to meet these challenges. There are two rules that separate RPAS use into lower risk and higher risk categories.

• Lower-risk RPAS operations fall under Rule Part 101, Gyrogliders and Parasails, Unmanned Aircraft (including Balloons), Kites and Rockets – Operating Rules. Part 101 sets out a series of rules that create the boundaries for low risk use. A person

does not have to come to the CAA for authorisation as long as they do not operate outside any of these rules.

 Higher-risk RPAS operations are currently authorised by the CAA on a case-by-case basis under Part 102, *Unmanned Aircraft Operator Certification*. Anybody who wants to operate in any manner outside of Part 101 must operate under Part 102.

RPAS are a rapidly developing technology. The purpose of a case-by-case rule such as Part 102 is to allow any operation as long as the operator can prove that they have appropriately mitigated the risks involved in the operation. This allows for research and development and commercial application of the quickly changing technology.

However, as the sector continues to grow and RPAS become more complex, new Civil Aviation Rules may be required. This could mean adapting to an environment in which there is increased automation of RPAS or one in which RPAS increasingly resemble traditional aircraft (such as a passenger aircraft) but without a pilot on board. You will be informed of any intention to change the rules.

International Civil Aviation Organization Audit

The International Civil Aviation Organization (ICAO) had planned to audit New Zealand from 5 – 15 December 2016 as part of its Universal Safety Oversight Audit Programme (USOAP). An ICAO USOAP audit measures a State's effective implementation (EI) of the eight critical elements (CEs) of a safety oversight system⁶. The last audit of New Zealand was in 2006 and resulted in an EI score of 83.72% — on par with the 34 OECD States.

Five ICAO auditors were to visit the Authority; Airways New Zealand (and its joint venture aeronautical information partner, Group EAD Asia Pacific Ltd); a representative international airport, most likely Auckland; and the MetService to validate the Authority's capability to supervise the activities of these service providers.

However, due to the inability to access the Authority's offices due to the recent earthquake, ICAO decided to reduce the scope of the audit while reserving the ability to conduct the full audit at a later date if it decides to do so. Two ICAO auditors instead focused on quite limited functions of the Authority and the Transport Accident Investigation Commission (TAIC).

Audit preparation had involved a coordinated effort, led by the Authority with the Ministry of Transport, the TAIC and the Rescue Coordination Centre New Zealand (RCCNZ). The Authority had completed a significant amount of work on outstanding 2006 audit findings and had put considerable effort into answering ICAO's Protocol Questions (PQs) covered by this audit. The answers provided to PQs are used by ICAO to assess a State's level of effective implementation of ICAO standards.

Despite this, the Authority continues to work with the Ministry of Transport to progress six outstanding issues from the 2006 audit through a rules development project for inclusion in the 2016/17 Transport Rules Programme. The Regulatory Impact Statement for this was submitted to the Ministry for review on 27 October 2016.

⁶ The eight Critical Elements are: CE 1: Primary aviation legislation; CE 2: Specific operating regulations; CE 3: State civil aviation system and safety oversight functions; CE 4: Technical personnel qualification and training; CE 5: Technical guidance, tools and provision of safety-critical information; CE 6: Licensing, certification, authorization and approval obligations; CE 7: Surveillance obligations; CE 8: Resolution of safety concerns

Regulatory Craft Programme

In 2013/14, the Authority started a project to replace its legacy business systems. In January 2014, a decision was taken to expand the scope of the business system replacement project known as the Aviation Safety Management System (ASMS) replacement project and a programme of work commenced titled the Regulatory Craft Programme (RCP).

While the RCP includes a focus on information management systems, it will also bring a continual improvement of operational capability to help the Authority cope with changing regulatory approaches and systems (for example, the introduction of SMS). The RCP is a significant part of the Authority's strategic focus to be a more responsive and results driven organisation.

The RCP's success will see improved aviation safety and security outcomes, an increase in the public's confidence in air travel, improved productivity for the Authority and participants, and a number of other wide reaching benefits.

The changes will enable the Authority to be more focused on results and in particular improve its ability to identify, understand and fix the important problems that affect the aviation system.

The key drivers for the programme are:

- To improve safety performance by developing the organisation to meet its regulatory business needs.
- To address the risks associated with retaining legacy information systems to ensure that the Authority is able to perform its regulatory role effectively and efficiently.
- To align with broader government strategies to create a better public service.

The Ministry of Transport is being regularly updated on progress.

The Civil Aviation Act Review

The Ministry of Transport, in consultation with the Authority, has undertaken a review of the Civil Aviation Act 1990 (the Act). As a result of the review, a number of amendments are proposed to the Act and the Civil Aviation Rules.

Proposed to the Act and the Civil Aviation Rules.

Redacted under section 9(2)(f)(iv) of the Official Information Act 1982.

The amendments relevant to the Authority's functions relate to:

- the protection of safety information;
- offences and penalties;
- improving processes around fit and proper person tests;
- clarifying the Aviation Security Service's search powers in the landside part of security designated aerodromes;

- providing for alternative airport terminal configurations and implications for security screening;
- institutional arrangements relating to the Aviation Security Service;
- the inclusion of national security considerations in the Act; and
- · a new purpose statement.

In addition, the new Act will include amendments relating to the management of drugs and alcohol (the 'Clear Heads' initiative, below).

'Clear Heads' Drug and Alcohol Management

The Authority is pleased that drug and alcohol management in aviation is progressing in the form of 'Clear Heads'. We have been advocating the importance of the issues for some time. In early 2016, Cabinet decided to:

- mandate drug and alcohol management plans (DAMPs) for all commercial aviation and maritime operators, including random testing of workers in safety sensitive roles; and
- give powers to the regulatory agencies to undertake non-notified testing of commercial operators in order to ensure compliance with their DAMP.

Throughout 2016, the Ministry of Transport developed the policy to give effect to these Cabinet decisions (the 'Clear Heads' policy) in conjunction with the CAA and Maritime New Zealand.

A DAMP will prescribe how an operator must manage the risks associated with drug and alcohol use in their organisation. This will likely include which employees will be tested, for what substances and how this testing will be undertaken. The DAMPs will outline what procedures the employer will take to ensure that an employee that tests positive for drugs or alcohol is removed from any safety sensitive activity.

The Director of Civil Aviation will have the power to undertake non-notified testing of these operators to ensure they are complying with their DAMPs.

This project requires changes to the Civil Aviation Act as these powers are a form of search and seizure. These Act changes are being made alongside the wider changes to the Civil Aviation Act as part of the Civil Aviation Reform Bill project.

There will also be changes made to the Civil Aviation Rules. We currently anticipate that the rule changes will begin once the Civil Aviation Reform Bill has passed (see above).

Once the Act and rule changes are in place, operators will have 18 months to create and implement their DAMPs. The Director's non-notified testing will commence after this 18-month period. We will continue to update you as this project develops towards implementation.

Redacted under sections 9(2)(c) and (9)(2)(f)(iv) of the Official Information Act 1982.



Strategic Priorities

The Authority's work programme is focused on ensuring safe flight for social connections and economic benefits. Detailed information regarding the strategic priorities is provided in the Authority's *Statement of Intent 2016-2026*.

In order to ensure safe flight for social and economic benefits the Authority focuses on three key areas. These are:

- improving the overall effectiveness of the aviation system;
- improving sector safety performance; and
- becoming a more responsive and results driven organisation.

Improving the Overall Effectiveness of the Aviation System

New Zealand's social and economic development depends on the integrity and connectivity of the aviation system. One of our key roles is enabling efficient use of the airspace without compromising safety. This is done by having clear requirements for aviation participants in line with international standards.

The Authority has a strong focus on regulating the aviation sector through a risk-based approach. There have been a number of internal changes to enable a risk-based approach across all Authority functions.

Our strategic priorities to improve the overall effectiveness of the aviation system are:

- increase the value of New Zealand's airspace:
- embed a risk-based approach to safety and security across the aviation sector; and
- monitor and proactively engage with new and emerging technologies.

Improving Sector Safety Performance

The Authority monitors the performance of the civil aviation system and, by using safety analysis data (accident and incident rates), it can develop Sector Risk Profiles. The Authority uses these profiles to better identify specific safety risks and offer more targeted and proactive responses.

Our strategic priorities to improve sector safety performance are:

- sustain a strong safety and security performance in the airline sector;
- improve safety regulation and performance in other key sectors, including adventure aviation and agribusiness; and
- develop Sector Risk Profiles across the general aviation sector and support participants in implementing SMS.

Becoming a more Responsive and Results Driven Organisation

In recent years, the Authority has undertaken a significant change programme to better prepare the organisation for future challenges. The technologies used and the risks and threats to security in the aviation sector are changing rapidly. In order to keep up to date the Authority needs to be an adaptive and resilient organisation.

A significant part of the change programme is the Regulatory Craft Programme (RCP). The intent of the RCP is to build on existing capability and to enable the Authority to be more effective, efficient and risk-focused.

The Authority proactively engages and influences relevant domestic and international issues so that we are able to determine the most appropriate response for the New Zealand aviation environment.

Our strategic priorities to become a more responsive and results driven organisation are:

- · continue to improve our operational systems and processes;
- strengthen our stakeholder relationships;
- maintain a sustainable funding model for regulatory and security operations; and
- improve the demonstration and reporting of performance.

Appendix A: Regulatory Responsibilities

International Regulatory Framework

New Zealand has significant international obligations as a signatory of the 1944 Convention on International Civil Aviation. The Convention contains 19 Annexes of global aviation standards and recommended practices (SARPs) and is administered by the International Civil Aviation Organization (ICAO), a specialist United Nations agency.

As a member State, New Zealand must secure, to the highest degree practicable, compliance with ICAO's SARPs (unless impracticable) and must notify ICAO of any differences between New Zealand rules and the SARPs.

The credibility of New Zealand's aviation system depends on the degree to which it conforms to ICAO's SARPs. Sufficient compliance or alignment with ICAO's SARPs is required to sustain our international credibility and to enable aviation trade.

Entry in foreign markets of aviation services and products is to some extent dependent on the 'completeness' of the New Zealand regulatory system in comparison to that promoted by ICAO and the effectiveness of the Authority in responding to and implementing these requirements. If there is too much deviation from ICAO's SARPs it will decrease New Zealand's international standing — New Zealand's international credibility would decline, resulting in more difficult trading conditions for major airlines and air service providers, and higher costs of compliance.

New Zealand therefore is a net taker of international rules. The Authority's approach is to adopt ICAO's SARPs, customised for New Zealand conditions, for both the international and domestic aviation sectors as major safety risks could arise if different procedures and standards were to apply.

As a result, the Authority expends considerable effort in seeking to influence the development of international aviation standards, recommended practices and associated guidance material in areas we consider vital to New Zealand's interests. This engagement is critical, as New Zealand has some unique elements to its civil aviation activity due to geographic isolation and high level of general aviation activity.

New Zealand is currently being audited by ICAO to determine how well it complies with its SARPs. This will result in a revised "Effective Implementation" (EI) score; New Zealand was last audited in 2006 and achieved an EI score of 83.72. Audit findings will likely include possible recommendations to change statutory settings as well as rules, and to address issues of concern to the Ministry of Transport, the Authority, and the Transport Accident Investigation Commission.

Staff⁷

Regulatory Function: The Civil Aviation Authority has 217 full-time equivalent and 11 part-time equivalent employees. Most are technical experts responsible for the certification and monitoring of aviation community participants and have generally come from careers in the aviation industry or the military, rather than the public sector.

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⁷ As at 30 June 2016

Security Service: The Aviation Security Service has 647 full-time equivalent employees, and 198 part-time equivalent employees. Most are front-line service delivery staff, based in airports around the country, with a small team based in Wellington.

Authority Funding

Approximately 90% of the Authority's revenue is from industry and participant levies, fees and charges. The remaining 10% comes from appropriation through Vote: Transport for policy advice, certain international relationships and Ministerial servicing; and contracts with government agencies for the delivery of specific services, for example the development of Civil Aviation Rules from the Ministry of Transport, and work in the Pacific for the Ministry of Foreign Affairs and Trade.

Civil Aviation Act 1990

The Civil Aviation Act (the Act) is New Zealand's primary aviation legislative document. The Act establishes the rules of operation and divisions of responsibility within the civil aviation system in order to promote aviation safety, and ensures that New Zealand's obligations under international aviation agreements are implemented.

The Director of Civil Aviation has powers conferred by the Act, which, when applied to a specific case, are performed independently of both the Minister of Transport and the Authority's Board. These powers include controlling entry and exit from the aviation system, monitoring performance, enforcing compliance with the Act and rules, and approving emergency rules where circumstances require immediate action.

The Act is currently being reviewed and the Authority is working closely with the Ministry of Transport as this progresses.

Civil Aviation Rules

The Civil Aviation Rules (the rules) set the common minimum standards to manage risks in aviation and for entering and operating within the New Zealand civil aviation system. The rules framework functions as a combination of standards and performance-based requirements.

Rules are made by the Minister of Transport under the Civil Aviation Act 1990 based on a programme approved by Cabinet and cover all aspects of the aviation system.

The Civil Aviation Act 1990 prescribes that rules must be consistent with ICAO standards to the extent that these have been adopted by New Zealand. When making rules the Minister must also take into account a broad range of considerations including the recommended practices of ICAO, the level of risk pertaining to a particular activity, and the cost of implementing the proposed measures.

The aviation industry provides input into the rule making process through various working groups. The Authority liaises with an industry consultative forum, the Aviation Community Advisory Group, on broader issues and priorities in the rule making programme.

A number of States have adopted New Zealand Civil Aviation Rules as the basis of their own regulatory system. These include Samoa, Tonga, the Solomon Islands, Vanuatu, Niue and Mongolia. Signatories to the Pacific Civil Aviation Safety and Security Treaty, which established the Pacific Aviation Safety Office (PASO), have undertaken to bring their civil aviation rules in line with New Zealand's rules.

The Authority also develops Advisory Circulars (ACs) that support the rules by providing explanatory information and acceptable means of complying with the rules.

Pacific Aviation Safety Office

Based in Port Vila, Vanuatu, the Pacific Aviation Safety Office (PASO) was established by a Treaty arrangement between a number of participating Island nations. It provides aviation technical services to the Treaty States, thus assisting in improving capability and capacity. However, PASO does not act as a regulator.

PASO. It is

designed to provide aviation regulatory advice to those States in order to help them better discharge their regulatory obligations.

Redacted under section 6(b)(ii) and section 9(2)(g)(i) of the Official Information Act 1982.

PASO is undertaking a significant change programme to bolster its ability to provide good technical and regulatory advice. The Authority is working closely with PASO to support this work. This has included providing a senior Authority staff member (funded by the Ministry of Foreign Affairs and Trade) to PASO to act as its interim General Manager. A new General Manager was appointed in October 2016.

The Authority's support has seen Pacific Island stakeholders gaining confidence in PASO services as trust in New Zealand support of the organisation increases. Examples of the effect of this growing confidence include the Cook Islands signing a service level agreement with PASO to deliver services previously delivered by the CAA. In addition, demand from the Island States has seen approximately 50 certification activities scheduled before the end of 2016. Such work recently resulted in the completion of a full recertification of Air Vanuatu.

New Zealand and Australia are also members of PASO. The CAA is the New Zealand representative in the PASO and provides policy and technical support to encourage safer practices in Pacific aviation systems.

International Safety Agreements and Arrangements

The Authority, in consultation with the Ministry of Transport and the Ministry of Foreign Affairs and Trade, promotes aviation safety agreements and arrangements with other countries. These reduce regulatory compliance costs for New Zealand operators that provide aviation goods or services overseas or on behalf of overseas organisations.

The Authority has agreements or arrangements with Australia (Civil Aviation Safety Authority), Canada (Transport Canada), the United States of America (Federal Aviation Administration) and Europe (European Aviation Safety Agency).

In addition, the Authority has agreements or arrangements to provide technical advice and assistance on request with PASO, Tonga, the Cook Islands, Niue and Samoa. Assistance to the Pacific is seen as an imperative due to the air links within the region and the number of New Zealanders who travel in the area. Avsec works in partnership with the Pacific region authorities and airlines in relation to the provision of aviation security training, equipment and strategic co-ordination.

Accident Investigation

In New Zealand, two organisations are responsible for the investigation of aviation accidents: the Transport Accident Investigation Commission (TAIC) and the Authority.

TAIC is responsible for the independent investigation of significant aviation accidents and incidents, and makes recommendations to improve safety. The CAA investigates a variety of accidents and occurrences in its capacity as the regulatory authority.

The CAA and TAIC have a Memorandum of Understanding to clarify the accident investigation responsibilities of each entity, the sharing of resources when required, and management protocols between the two organisations.

Accidents are sufficiently rare in the aviation sector now, that more valuable information can be gained by identifying precursors to accidents. Therefore, the Authority will be focusing its accident investigation capability on identifying these precursors. There is a possibility that in the future some serious or fatal accidents will not be investigated if TAIC declines to investigate them.

Interaction with Border Agencies and the New Zealand Police

The Aviation Security Service works closely with the New Zealand Police and government border agencies such as Customs, Immigration and the Ministry of Primary Industries. However, while the government functions occur at the same time, the Aviation Security Service focuses on departing passengers, whereas most other agencies at the airport are focused on incoming overseas passengers, luggage and freight.

At the international screening point, Aviation Security Service staff are usually located adjacent to Customs personnel who are performing the immigration function as well as checking for Police and Customs alerts. Co-operation occurs across a wide range of areas including sharing intelligence and data on passenger numbers, passenger facilitation issues at both formal and informal levels and airport security issues.

The Aviation Security Service has maintained a support role in the government's Border Sector Governance Group, which is focused on the interactions and efficiencies of Customs, the Ministry of Primary Industries and Immigration.

The Aviation Security Service is working with the Ministry of Primary Industries and Customs on issues around airport restarts, passenger facilitation and a Ministry of Primary Industries trial x-ray image transfer (Australia to New Zealand).

Health and Safety

Under section 191 of the Health and Safety at Work Act 2015 (HSWA), the CAA is the designated agency for health and safety about:

- work to prepare an aircraft for imminent flight;
- work on board an aircraft for the purpose of imminent flight or while in operation; and
- aircraft as workplaces while in operation.

A dedicated Health and Safety Unit leads the CAA's regulatory responsibilities and functions under the HSWA. The Authority is also responsible for enforcing the Hazardous Substances and New Organisms Act 1996 on aircraft.

Maritime Security

Where the Director of Maritime Safety believes that the threat level at a particular port justifies additional security measures, Avsec will provide maritime security services such as passenger screening. The Aviation Security Service's activity is focused on the Port of Auckland during the cruise ship season. Avsec has trained 50 Aviation Security Officers to also work as Maritime Security Officers should the need arise.

The Aviation Security Service is also working closely with agencies to improve New Zealand's ability to act in the event of a maritime security crisis.

Appendix B: Seven Safety and Security Focus Areas

The Authority has identified seven safety and security focus areas that give rise to safety or security risks that need to be mitigated to improve the aviation system⁸. Each represents a set of issues that give rise to safety or security risks that the Authority believes need to be mitigated to improve the aviation system.

The current focus areas are:

- 1. **Loss of control in flight** the risk of aircraft divergence from normal flight parameters or paths, for reasons of weather, malfunction, automation, etc.;
- 2. **Runway excursions** the risk associated with runway take-offs and landings;
- 3. **Airborne conflicts** increasing concerns over reported airspace incidents in controlled and uncontrolled airspace with the potential for airborne conflicts and resulting mid-air collisions;
- 4. **The helicopter sector** various indicators suggest the industry is not in a good position regarding its safety performance;
- 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 need to be able to respond to changes in threat levels with clear decision pathways and responsibilities, and mechanisms for implementing new or additional security controls; and
- 7. **International air cargo security** air cargo security depends on a robust and trusted supply chain system. Informed and targeted intervention activity will sustain levels of compliance throughout the entire air cargo supply chain and retain wide stakeholder assurance as to the level of security applied to international air cargo.

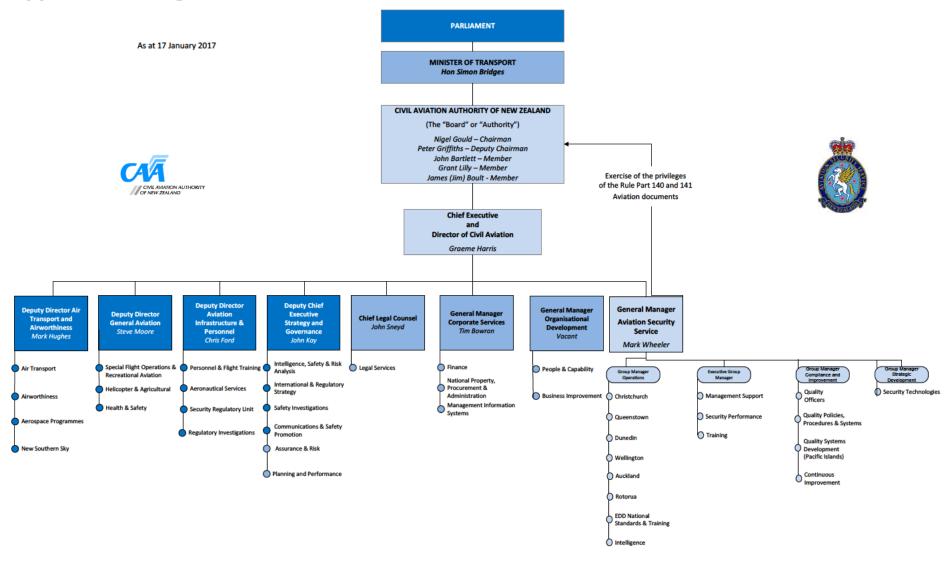
These focus areas drive the Authority's annual planning, day-to-day work, serve to sharpen existing regulatory interventions, and assist New Zealand maintain safe and secure skies. Addressing these areas will enable the Authority to ensure New Zealand continues to have a vibrant aviation system, effective and efficient security services, and improved sector safety performance. Resources and action plans have been organised around each focus area to improve sector safety performance.

Recognising the dynamic nature of the civil aviation system, the focus areas will change throughout the life of the 2016-2026 Statement of Intent and will be reviewed regularly. As behaviours of those inside the aviation system and those who use the system are influenced, the issues (focus areas) that cause concern will change, driving the need for an annual review.

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⁸ http://www.caa.govt.nz/publicinfo/focus areas 2016-2019.pdf

Appendix C: Organisational Structure



Appendix D: Key Organisational Contacts

Redacted under section 9(2)(a) of the Official Information Act 1982.

Role	Person	Contact Details
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Role Person **Contact Details Board Chairman** Nigel Gould DDI: Mobile: Email: Peter Griffiths Board Deputy DDI: Chairman Mobile: Email: **Board Member** John Bartlett DDI: Mobile: Email: **Board Member Grant Lilly** DDI: Mobile: Email: **Board Member** (Jim) DDI: James Boult Mobile: Email:

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