Mr Steven Bailey  
Inquiry Director  
Inquiry into Regulatory Institutions and Practices  
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The Terrace  
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Dear Mr Bailey  

CIVIL AVIATION AUTHORITY: RESPONSE TO INQUIRY INTO REGULATORY INSTITUTIONS AND PRACTICES  

Please find attached the response of the Authority to the Commission’s Issues Paper “Regulatory Institutions and Practices”.  

If you have any questions or wish to discuss our response further, please don’t hesitate to contact me.  

Yours sincerely  

[Signature]  

John Kay  
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Encl.
Civil Aviation Authority

Response to Productivity Commission Inquiry

Into Regulatory Institutions and Practices
Civil Aviation Authority of New Zealand

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INTRODUCTION

Aviation is a dynamic industry within which safety rightly enjoys primacy in order to sustain the high level of integrity demanded by Government, its citizens and the international community. It is a disparate sector covering commercial operations and recreational (including sporting) activities. However, it is fundamentally a global activity for the majority based on international operations, which have a regulatory basis.

The International Civil Aviation Organisation

A specialised agency of the United Nations, the International Civil Aviation Organization (ICAO) was created in 1944 to promote the safe and orderly development of international civil aviation throughout the world. It sets standards and regulations necessary for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection. The Organization serves as the forum for cooperation in all fields of civil aviation among its 191 Member States.

The Convention on International Civil Aviation (also known as Chicago Convention), was signed on 7 December 1944 by 52 States. In October 1947, ICAO became a specialised agency of the United Nations linked to the Economic and Social Council (ECOSOC).

New Zealand’s obligations under the Convention on International Civil Aviation

New Zealand is party to the Convention on International Civil Aviation and the Minister of Transport is responsible for New Zealand’s participation in the Convention. Our obligations include having a comprehensive safety and security regime based on the standards and recommended practices prescribed in annexes to the Convention by the International Civil Aviation Organization.

The government’s role is predominately as a policy maker and regulator, although it has some ownership and operational functions. The role of regulator is established in the Civil Aviation Authority, through the Civil Aviation Act 1990.

The Civil Aviation Authority is responsible for implementing the Convention, except where compliance with the International Civil Aviation Organization Standards and Recommended Practices are not in New Zealand’s interest, or where it would unduly restrict New Zealand aviation regulation, or is inconsistent with New Zealand’s legislative framework.

The Level of Effective Implementation

The Level of Effective Implementation of the critical elements related to safety oversight systems established by the ICAO is instrumental to the achievement of positive and industry-wide safety outcomes. These outcomes are aided by proper adherence to safety-relevant International Civil Aviation Organization Standards and Recommended Practices, as well as associated procedures and guidance materials. As at 30 June 2012, 179 (94%) of the 191 International Civil Aviation Organization Contracting States have been audited under the Universal Safety Oversight Audit Programme Comprehensive Safety Audit.

New Zealand’s average Level of Effective Implementation on the eight critical elements is 8.63 out of 10, better than the Organisation for Economic Co-operation and Development average of 8.18, and on par with Organisation for Economic Cooperation and Development countries like Australia and
Czech Republic; and lower than other countries like South Korea, France, Canada, Ireland, USA, Japan, Switzerland, Poland, Spain and Iceland.

New Zealand does not fully comply because it has registered a number of areas where compliance with the International Civil Aviation Organization Standards and Recommended Practices are not in New Zealand’s interest, or where it would unduly restrict New Zealand aviation regulation, or is inconsistent with New Zealand’s legislative framework.

The Audit Programme result enables New Zealand to retain Category 1 status based on the United States Federal Aviation Administration’s International Aviation Safety Assessment Programme. This means that the Authority substantially complies with International Civil Aviation Organization standards. As a Category 1 State authority, New Zealand air carriers can expand services in the United States within the limits of the air services agreement.

It is in New Zealand’s economic interests to maintain a high degree of compliance with International Civil Aviation Organization standards and maintain its Category 1 aviation safety oversight capability status. Being downgraded from Category 1 to Category 2 by the Federal Aviation Administration carries detrimental economic consequences to New Zealand’s aviation sector, air freight and tourism industries. For instance, a certificated New Zealand air operator with scheduled services in the United States would not be permitted to expand services in US territory regardless of whether it operates a United States State of Design aircraft, if the CAA was downgraded to a Category 2.

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1 The last International Civil Aviation Organization Universal Safety Oversight Audit Programme audit results for New Zealand are based on a 6-year audit cycle that was completed in March 2012. In 2011, International Civil Aviation Organization began its transition with the Universal Safety Oversight Audit Programme to a Continuous Monitoring Approach which will be implemented in phases from 2013. (In July 2011, the United States Federal Aviation Administration presented its International Aviation Safety Assessment Programme to New Zealand Embassy staff in Washington D.C.)

2 Category 2 means that the US Federal Aviation Administration determined that the Authority does not provide safety oversight of its carrier operators in accordance with the minimum safety oversight standards established by International Civil Aviation Organization. See www.faa.gov for further details.
NATURE AND SCOPE OF THE AUTHORITY

The CAA of New Zealand is a crown agent, and as such is a crown entity, governed by a five member board. The Authority comprises two divisions:

- the Civil Aviation Authority (the regulatory agency) under the Director of Civil Aviation

We have safety, security and other functions in New Zealand’s civil aviation sector. The way we carry out these functions contributes to an integrated, safe, responsive and sustainable transport system.

We have five core functions:

OUTREACH
We support and promote safety in the civil aviation sector through educational publications, seminars and advice. We focus our efforts on the areas of greatest safety concern.

CERTIFICATION AND LICENSING
We control entry to and exit from the New Zealand civil aviation system. The process depends on whether applicants are organisations, individuals or products. Entry is only granted when applicants can demonstrate that they meet the standards for safety and security.

SURVEILLANCE AND INVESTIGATION
We monitor compliance with the standards for safety and security. We investigate and analyse accidents and incidents that occur, and we undertake corrective action and enforcement, if required. We also administer the Health and Safety in Employment Act for the aviation sector.

SECURITY SERVICE DELIVERY
We provide screening for prohibited items and dangerous goods. We screen all departing international passengers and departing domestic passengers on aircraft with 90+ seats. Working with the New Zealand Police, we provide security at designated airports and navigation facilities. We also provide a maritime security response for high level threats affecting cruise ships or their passengers.

OPERATING ENVIRONMENT

Over the next 20 years, civil aviation is likely to change under the impact of many key developments. Global changes will flow through to New Zealand. We work to be proactive in managing how New Zealand’s aviation safety and security changes under developments such as:

- industry growth;
- technological advances;
- the regulatory environment;
- environmental impacts;
- the role of secondary aerodromes;
- the changing nature of security threats; and
- changing expectations of government.
STRATEGIC DIRECTION

We have three key areas of focus:

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

These three key areas link our core functions and outputs to the government’s overall goal and outcomes for the broader transport sector. They also summarise the priorities of the Authority for 2013–2016.

DOCUMENTATION

Copies of the following documents are available:

- Strategic Direction - Oct 2011
- Statement of Intent 2013-2016
- Annual Report 2011-2012
- Regulatory Operating Model - Feb 2012
- Use of Regulatory Tools - May 2012

NOTE

In the context of this document the term aviation safety includes aviation security.
Key Points

Civil aviation operates within an international regulatory framework.
- The framework sets consistent standards that enable aircraft to fly to/from different countries, aircrew to work in different countries and aircraft and associated systems to operate in different countries, providing the requisite standards etc., are met.
- New Zealand is a ‘taker’ of these standards because of the international framework
- If the New Zealand civil aviation regulatory environment does not keep up with the international framework then there is a real possibility of New Zealand international credibility declining, resulting in more difficult trading conditions for major airlines and air service providers, and higher costs of compliance.

There is a real need for a regulatory body to have a clear purpose (e.g. safety) which can be discharged in a way that is mindful of (or supports) other Government policy goals:
- In the CAA’s case, maintaining a safe civil aviation system is the primary goal, and this can be achieved whilst being mindful of other Government policy imperatives (e.g., economic development)

Civil Aviation Rules in New Zealand are currently a mix of technical standards and descriptions on intended outcomes.
- There is a tension between the pace of technological change and the speed at which it is possible to update Civil Aviation Rules to take account of (or even permit the use of) new technologies
- With respect to institutional arrangements, enabling either the Authority, or the Director of Civil Aviation to amend the technical elements of Rules has some appeal

The institutional form of the Regulator is a less critical issue than the stability of the institutional form, and the clear vesting of powers/authorities either in a designated role holder, or a board
- Aviation may lend itself more naturally to a single decision-maker, and the current situation of the CAA is in reality a hybrid of the multi-member decision maker model (a board), and the single decision maker (the Director).
THE CAA’S REGULATORY FORM AND APPROACH

There are a number of issues that influence the CAA’s thinking about the effectiveness and efficiency of its regulatory form and approach. These can be summarised as:

- **There is a complex trade-off between political control and agency autonomy.** Discussion suggests more managerial autonomy and discretion and more decentralization, flexibility, deregulation and devolution; while on the other hand central administrative and political control seems to be increasing through contractual arrangements, performance reporting, centralisation, co-ordination and re-regulation and possibly budget/revenue control/oversight. Achieving stability over the medium term in this area may well be an elusive goal.

- **The dual process of de-regulation and re-regulation:** new forms of control are emerging as a supplement to established methods resulting in increased complexity, or replacing them.

- **Old and new are merging to form new innovative methods of control and supervision.** The task of regulatory oversight has undergone a considerable change from the traditional audit/inspector role, focusing on compliance and individual cases, to more complex activity involving performance-based control arrangements and outcome based regulations, sophisticated risk assessment and management, extended suites of regulatory tools and increasing use of behavioural methods for regulatory oversight.

- **The problem of role-separation (specialisation) and co-ordination** in the case of state-owned entities subject to regulation: streamlining of the roles of regulator implies an attempt to isolate and separate the roles from the other roles of the state – that is owner, provider/producer and regulator. In contrast to the traditional model of resolving conflicts between roles in a multi-functional state through role integration, governments are now adopting a “role streamlining” approach to the problem.

Monitoring the Regulators

Wherever societies engage in economic activity (which is to say everywhere), demand arises for regulation by the state to curb the undesirable impacts of that economic activity.

Rules may not be perfect. As a result, wherever states deploy regulation, demand also arises for oversight of the regulatory system to reduce the costs and side effects of regulation, promote efficiency in standard-setting and instrument choice, encourage consistency and transparency, and improve the overall social outcomes of regulation. The Roman poet Juvenal asked “who will watch the watchers, who will guard the guardians?” Today we ask: who will oversee the regulators?

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3 In the CAA’s case, it is both the regulator of, and provider of, aviation security services.
4 Juvenal was asking who would oversee those assigned to guard the queen’s fidelity during the king’s absence, lest those guards betray their own duty.
RESPONSE TO INQUIRY INTO REGULATORY INSTITUTIONS AND PRACTICES

1. **What sort of institutional arrangements and regulatory practices should the Commission review?**

   It looks as though everything in the list at p4 has been covered in the questions.

2. **The Commission has been asked to produce guidelines to assist in the design of regulatory regimes. What type of guidelines would be helpful?**

   Because of the range or variety of regulatory bodies in New Zealand it is difficult to develop guidance of any real specificity. Regulatory agencies are not an homogeneous set; they are unique to the sectors they regulate and in some cases those sectors have stronger international than domestic links and norms. However, the underlying theory or paradigms may have some commonality.

   Guidance similar to that of the Office of the Auditor General and the Treasury in regard to Fees and Charges might be useful. Generally, however, the establishment of a regulatory body is probably best guided by the department with monitoring responsibility, with support from the three central agencies and the OAG.

   It is important not to overlook the knowledge and experience of other regulators with institutional knowledge of what it is to be a regulator in their jurisdiction. Regulators should be encouraged to share learning, and experience with peer organisations.

   The development of a set of guidelines to assist in the design of regulatory organisations and the regimes under which they operate would be useful. These guidelines should:

   - set out principles for the design of the regulatory system, although should not predetermine the design;
   - set out principles for the design of the organisation, and not predetermine the design; and
   - consolidate the existing documentation from the central agencies (e.g. Treasury, State Services Commission, Office of the Auditor General, etc.), into a single comprehensive ‘governing’ document that is signed-off by the Cabinet. (At present, an underlying issue is the plethora of guidelines, which, which are not necessarily ‘consistent’ one with another.)
The International Context (pp12-13)
The discussion document notes that New Zealand is part of a global regulatory system – aviation personifies that 'global' aspect.

- The CAA is in-effect a net taker of international rules (regulations), which are then customised for New Zealand conditions - credibility of our aviation system stands on the degree to which New Zealand conforms to the Rules expected/defined in the international environment by the International Civil Aviation Organization (ICAO).

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 the ICAO; and the effectiveness of the regulatory body (the CAA) in responding to an implementing these requirements.

The CAA expends considerable effort in seeking to influence the development of international aviation standards in areas we consider vital to New Zealand’s interests.

- Mutual recognition with Australia under the ANZA agreement is an example of a type of mutual recognition - Australian operators can fly in New Zealand under their Australian documents, and are overseen (regulated) by CAANZ's Australian counterpart (CASA), and vice-a-versa.

This drives inherent efficiencies between the regulatory systems because if the costs of the New Zealand regime over Australian regime are too high, then there is little incentive for New Zealand based operators to remain New Zealand certificated, when they can operate in New Zealand under Australian certificates and oversight (and vice-a-versa)

Joint Regulation (p14)
There could be an argument for joint regulation between Australian and New Zealand for civil aviation, however it:

- would raise interesting and challenging issues about the compatibility of the regulatory approaches adopted by both countries, despite the global nature of civil aviation regulation (how the regulatory systems are implemented);
- may impact on the degree of influence New Zealand can exercise on/in the international system as our 'non-aligned' status enables engagement that would not otherwise eventuate;
- could impact adversely on cost structures in the short- to medium-term as harmonisation of regulations and approaches was achieved; and
- could reveal the very different sector profiles with respect to safety risk of the two countries, highlighting the different approaches and priorities taken to regulatory oversight in the aviation sector..
3. **Does New Zealand have (or need) a unique ‘regulatory style’ as a result of our specific characteristics?**

The New Zealand regulatory environment is unique, to the extent that political and administrative structures are somewhat different from other countries to which we frequently compare ourselves. This is canvased well in the document. It is not surprising therefore that our institutions differ in many ways from those in other jurisdictions.

However, we are increasingly importing regulatory frameworks from other jurisdictions. The civil aviation regulatory framework largely comprises an international rule set (ICAO), albeit modified for New Zealand conditions.

Trade treaties and international agreements, too, import regulatory requirements with which New Zealand must comply to meet the commitments made in those treaties (for example in Food Safety).

4. **What influence has New Zealand’s specific characteristics had on the way regulation is designed and operated in New Zealand?**

The framework and structure of New Zealand legislation and regulation, and the institutions that ensure compliance have developed, initially based on United Kingdom law, but also New Zealand law since 1865.

New Zealand's Civil Aviation Authority is viewed highly amongst its international peers and has close relationships with other aviation regulators - such as the Australian Civil Aviation Safety Authority, the United States Federal Aviation Authority (FAA) and the European Aviation Safety Agency - as well as working relationships with local industry.

The development of New Zealand’s aviation regulatory system has occurred in response to many international, and local, stimuli - legal, political, social and geographic, including:

- New Zealand was an ‘early adopter’ of aviation. South Canterbury farmer Richard Pearse had worked on ideas for powered flight as early as 1899, and may have made his first attempt at flight on 31 March 1903, eight months before the Wright brothers made a controlled flight in the United States. The first controlled powered flight in New Zealand occurred in 1911. In August 1920 came the first crossing of Cook Strait, with a flight over Mt Cook shortly after, followed early in 1921 by a flight to Stewart Island. By the late 1940s people could fly to most New Zealand centres, and to other countries.

- The New Zealand aviation regulatory system is based significantly upon the recommendations of the Swedavia-McGregor report that was published in April 1988. The report considered, from the viewpoint of safety, the need for regulatory controls and enforcement requirements in civil aviation, and recommended the appropriate level of regulation with regard to safety, economics, and New Zealand's international commitments; and institutional arrangements, organisational structure, and resource requirements for a civil aviation safety authority in New Zealand.

It was that report which formed the basis for the Civil Aviation Act 1990 and the formation of the CAA as a standalone Crown agency distinct from the Ministry of Transport.
• There are three distinct participant groups in New Zealand aviation:
  a) large commercial and internationally aware entities;
  b) smaller domestically focused commercial activities; and
  c) general and recreational aviators;

• New Zealanders tend to be pragmatic, pioneering and problem solving by nature. An adventurous spirit and uncluttered and open airspace has resulted in New Zealand having one of the highest rates of aircraft ownership in the world. At most recent count, there were 4851 aircraft registered in New Zealand \(^5\), (excluding military aircraft), or roughly one aircraft for every 875 people. These encompass over 500 different models - including a high number of helicopters. A growing number of companies are also certified to maintain a wide range of commercial and military aircraft used by domestic and international operators.

• Most of New Zealand’s 780-odd aviation and related companies are small and privately owned but there are exceptions such as Air New Zealand. There are 28,421 aviation document holders, with another 15,546 (mostly) medical certificate holders.

• New Zealand has established globally recognised industry standards in extreme environments which are ideal for conducting flight test engineering trials. Additionally, developing products for New Zealand’s tough and small market means its products are ready to meet the rigorous requirements of international projects. New Zealand aviation exports are worth just over NZ$800m;

• New Zealand’s geography, long and narrow with areas of sparse population, makes aviation a useful tool for communications and other uses (e.g. the agricultural sector made good use of aviation early on for the application of fertilisers to hilly and remote country);

• The geography has also created opportunities for tourist and recreational aviation in and over marine, alpine and remote areas; and

• Despite New Zealand’s aviation system being a closed system (that is entry and exit are controlled) many of New Zealand’s general and recreational aviators believe they have a ‘right to fly’. This causes some conflict between the CAA’s application of the Civil Aviation Rules and a lack of willing by some to accept the application of those rules to them as individuals.

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\(^5\) This number includes Aeroplane, Amateur Built Aeroplane, Amateur Built Glider, Amateur Built Helicopter, Balloon, Glider, Gyroplane, Hang Glider, Helicopter, Microlight Class 1, Microlight Class 2, Para Glider, Parachute and Power Glider categories
Thematic categorization of regulators (p15)

- The transport sector (e.g., rail, land, air, maritime) regulations are not homogeneous to the extent that might be imagined
- Civil aviation and maritime have broad similarities (e.g., similar international regulatory frameworks, broadly similar domestic regulatory frameworks, etc.), but have quite different characteristics in a technical sense (aviation and maritime engineering, navigation, etc., whilst conceptually similar in some ways, are very different)
- In reality, the transport sector is a set of systems that have elements/degrees of overlap and congruence – it is not all that obvious that categorization by theme (e.g., transport) would add much in the way of value or insight

5. What other ways of categorising New Zealand’s regulatory regimes and regulators would be helpful in analysing their similarities and differences? How would these categorisations be helpful?

Agencies that have regulatory oversight responsibilities and powers, to a greater or lesser extent, have the organisational status of:

- Public Service Departments 29
- Non-Public Service Departments 6
- Crown Agents (incl. DHB) 46
- Autonomous Crown Entities 18
- Independent Crown Entities 17

Alternative ways of categorising regulatory agencies could include:

- Organisational status (see above);
- Activity (service delivery; regulatory compliance; trading; or a mix of two or more of those activities);
- Sectoral span; (e.g. aviation or marine, or aviation and marine); or
- Regulatory objective (e.g., safety, or security, or economic, or social, or a mix of two or more of those).
Clarity of purpose (p19)

• Civil Aviation Act confers a clear purpose for the CAA - aviation safety and aviation security service provision

• Where the purpose of the Authority and its activities can become less clear is through the inclusion of other requirements that are not necessarily aligned to its primary purpose.

For example, if economic development had the same 'status' as safety and security in the Authority's purpose it would be more difficult to make consistent decisions where economic development may be negated by arguments for safety and vice-a-versa. (as in the case of the CAA in the UK)

6. Can you provide examples of regulatory regimes with particularly clear or (conversely) unclear objectives? What have been the consequences of unclear regulatory objectives?

The role of the Authority is set out in Sections 72AA and 72B of the Civil Aviation Act.

72AA Objective of Authority

The objective of the Authority 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.

72B Functions of Authority

(1) [Repealed]

(2) The Authority has the following functions:

(a) to promote civil aviation safety and security in New Zealand:

(b) to promote civil aviation safety and security beyond New Zealand in accordance with New Zealand’s international obligations:

(c) [Repealed]

(ca) to establish and continue a service to be called the Aviation Security Service:

(d) to investigate and review civil aviation accidents and incidents in its capacity as the responsible safety and security authority, subject to the limitations set out in section 14(3) of the Transport Accident Investigation Commission Act 1990:

(e) to notify the Transport Accident Investigation Commission in accordance with section 27 of accidents and incidents notified to the Authority:

(f) to maintain and preserve records and documents relating to activities within the civil aviation system, and in particular to maintain the New Zealand Register of Aircraft and the Civil Aviation Registry:
(g) to ensure the collection, publication, and provision of charts and aeronautical information, and to enter into arrangements with any other person or organisation to collect, publish, and distribute such charts and information:

(h) to provide to the Minister such information and advice as the Minister may from time to time require:

(i) to co-operate with, or to provide advice and assistance to, any government agency or local government agency when requested to do so by the Minister, but only if the Minister and the Authority are satisfied that the performance of the functions and duties of the Authority will not be compromised:

(ia) to provide information and advice with respect to civil aviation, and to foster appropriate information education programmes with respect to civil aviation, that promote its objective:

(j) to enter into technical or operational arrangements, or both, with civil aviation authorities of other countries.

The legislative provisions make the CAA’s role clear, and this is set out in:

**OUR VISION**

Safe and secure civil aviation.

**OUR MISSION**

To manage safety and security risks in New Zealand civil aviation through the implementation of efficient oversight, regulatory, and promotional action.

All of the CAA’s business activities are focused on managing safety and security risks in New Zealand civil aviation. This enables focus in:

- Strategic direction;
- Priority setting
- Decision making
- Resource allocation
- Relationship building and management; and
- Staff professional development,

The CAA does not have visibility of New Zealand regulatory regimes that have a lack of clarity about purpose or objectives. However it does note the lessons derived from the Pike River tragedy. (See our responses to question 7)

Internationally, we note the 1996 legislation change for the Federal Aviation Administration (FAA). To address public perceptions about FAA’s “dual mission,” the Federal Aviation Reauthorization Act of 1996 specified safety as the agency’s highest priority. The FAA
remained responsible for encouraging and developing civil aeronautics, but references to a promotional role were eliminated from its mandate.

7. Where regulators are allocated multiple objectives, are there clear and transparent frameworks for managing trade-offs? What evidence is there that these frameworks are working well/poorly?

There is potential in a high-risk high-reliability industry that has had very few failures (such as aviation) of failure to maintain regulator relevance and public understanding of the sector. A consequence of this is loss of interest in the activities of the regulator, and progressive disinvestment and loss of priority for the agency.

Introducing new regulations, or changes to existing regulations, in the absence of failure, in order to be precautionary and continue that level of performance becomes increasingly difficult. It is particularly so if the “test” for regulations, or changes to existing regulations, is dependent on adducing evidence of failure to demonstrate or quantify costs/benefits. Such a difficulty would be multiplied in the case of a multi-focus regulator.

In regard to the Pike River Mine inquiry, the Commission’s conclusions about the performance of the regulator (as a small business unit in very much larger organisation) are sobering. In essence, the Commission points to:

- the Department of Labour not providing adequate resources or tools to enable its inspectors do the job required;
- assumptions about the operator’s actual performance determining a regulatory approach that were not matched to the actual risk posed by the nature of the operation nor necessarily the behaviour of the organisation (or certain role-holders within the organisation); and
- failure to respond to evidence of risk, and even when action was taken, it was taken only partially, and not followed through logically.

Could or should the CAA assume the mantle of being the economic regulator of the aviation sector, as well as the safety regulator?

The UK Civil Aviation Authority (CAA-UK) is a public corporation, and was established by Parliament in 1972 as an independent specialist aviation regulator and provider of air traffic services. Its work is focused on:

- enhancing aviation safety performance by pursuing targeted and continuous improvements in systems, culture, processes and capability;
- improving choice and value for aviation consumers now and in the future by promoting competitive markets, contributing to consumers' ability to make informed decisions and protecting them where appropriate;
- improving environmental performance through more efficient use of airspace and make an efficient contribution to reducing the aviation industry's environmental impacts; and
• ensuring that the CAA is an efficient and effective organisation which meets Better Regulation principles.

In New Zealand, the CAA-NZ is safety regulator, and as such regulates aviation safety and security providing assurance to the public and users of the civil aviation system through:

• certificating and licensing aviation participants;
• monitoring aviation participants’ compliance with civil aviation safety and security legislation and rules (through surveillance);
• enforcing compliance with the civil aviation Act and rules; and
• taking action to remove unsafe products, organisations or individuals from the civil aviation system.

In addition to the core regulatory obligations, the CAA-NZ also provides:

• policy advice;
• civil aviation rules development (under contract to the Ministry of Transport);
• education and promotion of civil aviation rules, advisory circulars and other safety and security-related information;
• investigation of civil aviation accidents and incidents together with analysis of trends; and

The CAA and the Director also exercise functions and powers delegated by the Minister of Transport, including in particular, undertaking the Crown’s obligations as a Contracting State to the International Civil Aviation Organization (ICAO).

The economic regulatory activities applied to the aviation sector are currently the responsibility of the Ministry of Transport, Ministry of Business Innovation and Employment, and the Commerce Commission.

If the CAA was to undertake the economic regulation of the aviation sector, the consequences could include:

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<td>• apply aviation sector knowledge and intelligence to the regulation of the sector</td>
<td>• compromise the CAA’s sole focus on aviation safety</td>
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<td>• ability to consider safety/security issues in economic decision making.</td>
<td>• compromise the ability of the Commerce Commission to apply a whole of economy approach</td>
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8. Can you provide examples of where assigning a regulator multiple functions has improved or undermined the ability of the regulator to achieve the objectives of regulation?

The merger of *Offer* and *Ofgas* to create *Ofgem* in the United Kingdom is an example of realising the benefits of multi-industry regulation. One of the reasons for the joint regulation of gas and power industries is that it reflects the increasing integration of the companies operating in both. Similarly, with restructuring in many sectors, companies leveraging resources to provide multi-sector services, such as gas, power, water, cable TV and the like are becoming more common. Given the similarities across network utilities, resources can be leveraged and learning can be enhanced across sectors.

A joint organisation could limit the extent of capture by one or other sector as the larger organisation would require a wider range of expertise, and have a wider stakeholder community. Capture by either regulated entities, or politicians, is also more difficult as a larger number of stakeholders with different interests creates a system of checks and balances.

As indicated earlier, the CAA is both regulator of, and provider of, aviation security services.

9. Can you provide examples of where a single agency is responsible for both industry promotion and the administration of regulations? What processes are in place to align the incentives of the regulator with the desired regulatory outcomes? What evidence is there of success or failure of these processes?

The CAA carries out promotion of aviation safety and security, and Health and Safety in Employment in aircraft operations, as a necessary part of its regulatory responsibilities. This, however, is not promotion of the aviation industry as an economic activity.

Economic regulation of the aviation sector lies with other government agencies (e.g., Ministries of Transport and Business Innovation and Employment, and New Zealand Trade and Enterprise). For example, recently a Minister enabled a whole-of-Government approach, along with the industry, to seek improved economic benefits from the aviation industry without compromising the integrity or application of the safety regulatory system. We are able to work within and across the sector and Government to achieve economic benefits without that end compromising our primary functions and safety objectives.

As stated in our response to question 6, the US Congress addressed public perceptions about the Federal Aviation Administration’s “dual mission”. The Federal Aviation Reauthorization Act of 1996 specified safety as the agency’s highest priority. The FAA remained responsible for encouraging and developing civil aeronautics, but references to a promotional role were eliminated from its mandate.

There are examples of failure where promotion or economic development objectives and safety objectives become too disconnected (as in the case of Pike River). The institutional form is less important than the “engagement” and “work together” requirement necessary to

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6 Gürcan Gülen, Ruzanna Makaryan, Dmitry Volkov, Michelle Foss; *Improving Regulatory Agency Efficiency and Effectiveness - Best Practices, Processes and Organizational Structures*; Center for Energy Economics, Bureau of Economic Geology, University of Texas at Austin (date not known)
ensure that the gaps that the Pike River Royal Commission pointed to do not repeat themselves.

10. Are there examples of where regulators have clearly defined policy functions? Conversely, are there examples of where the policy functions of a regulator are not well defined? What have been the consequences?

In terms of section 72(2)h of the Civil Aviation Act, the CAA advises the Minister, and contracts to provide policy advice to Ministry of Transport. The CAA also gives advice to other Ministries including Foreign Affairs and Trade, Business Innovation and Employment.

The policy functions of the Ministry of Transport and the CAA are tightly integrated.

In order to achieve the CAA’s policy obligations, our operational delivery and policy-making need to be appropriately ‘engaged’, one with the other and with the Ministry of Transport. Regardless of form, an agency such as the CAA needs some policy capability in order to be able to engage with policy agencies - otherwise it is rather like two different language speakers trying to communicate without a translator.

The CAA also needs an internal policy capability to develop the systems interventions and internal policy and procedures for its own operations.

From the CAA’s perspective, for a regulatory agency not to have some policy capability would reduce the agency’s ability to properly engage in government processes in three ways:

i. When it wishes to advocate for a change in policy settings, which might not result in rule (regulatory) changes;

ii. When being asked by Government to provide advice on policy issues; and

iii. When engaging in the international arena and seeking to influence international standards beyond simply ‘technical requirements’.

The line between policy and regulatory strategy is fine and somewhat blurred. The regulator needs policy/regulatory strategy capability, most particularly with respect to the choices of appropriate intervention methods.
Over-lapping regimes (p21)
To some extent an overlap exists with Health and Safety legislation, where the Authority administers the HSE Act for aircraft in operation. In some cases, Civil Aviation Rules may provide for better HSE outcomes than the HSE legislation (and vice-a-versa).
This can make for tensions between respective regulators, especially where there may be differing underlying drivers or expectations about the regulatory approach, or sectoral issues.

11. Can you provide examples where two or more regulators have been assigned conflicting or overlapping functions? How, and how well, is this managed?

The Ministry of Business Innovation and Employment is responsible for Health and Safety in Employment, while the CAA carries out oversight of the HSE functions for aircraft in operation.

The Prime Ministerial Designation requires the CAA to administer the Health and Safety in Employment Act 1992 for the aviation sector, specifically for aircraft while in operation. The scope of the designation covers the administration of the Act for work on board aircraft and for aircraft as places of work while in operation. Specifically, the scope incorporates the period when the aircraft is taxiing, taking off, in flight, and landing.

With the establishment of a new regulatory body to assume responsibility for Health and Safety in Employment, the CAA will continue to carry out its regulatory oversight of HSE for aircraft in operation.

In the case of airports, the “airside” of the security barrier is regulated by the CAA under its own Civil Aviation Rules and also in compliance with international agreements that include safety and security requirements. They are also subject to regulatory oversight of Health and Safety in Employment by the Ministry of Business Innovation and Employment.

The carriage of dangerous goods in aircraft is covered under Civil Aviation Rule Part 92. The rule part has existed since 1992 and incorporates requirements set down for such matters by the International Civil Aviation Organisations. This serves to ensure appropriate levels of protection are applied to the carriage of dangerous goods in aircraft in a manner that meets international best practice. The rule part also addresses the outcomes required by the HNSO Act which came into force in 2001. Under the HSNO Act, the Director of Civil Aviation is responsible for ensuring the provisions of the HNSO Act are enforced in or on any aircraft. Again airports are subject to Environmental Protection Authority (EPA) oversight as well as CAA oversight in this regard.

There is some potential for conflict in expectations between the differing regulatory regimes.

12. Are there examples of where regulators are explicitly empowered or required to cooperate with other agencies where this will assist in meeting their common objective?

The CAA cooperates with the NZ Police and the Transport Accident Investigation Commission in regard to the investigation of aviation incidents and accidents.
In addition, the Aviation Security Service (a service delivery business unit of the CAA) cooperates with the NZ Police and other security organisations in matters of aviation security.

The CAA is the enforcement agency for HSE for aircraft in operation, and thus cooperates with the Ministry of Business Innovation and Employment in this regard.

Where deaths occur the CAA also cooperates with the Coronial Service through supporting Inquests and Coronial inquiries. However, a separate issue arises in regard to death from aviation accident. The Coroner carries out an inquest to determine the cause of death in the event of accidental death. In addition, both the CAA and the Transport Accident Investigation Commission may investigate a near-fatal or fatal accident. Thus there is the potential for

- conflicting findings arising from three bodies investigating the same event;
- duplication of effort;
- different investigation focus; and
- the impact of some investigations (e.g. Coroner’s investigations) being dependent on technical knowledge from the CAA even though the regulator may then be subject to criticism and recommendations by the investigator.

13. **Can you provide examples of where two seemingly similar regulatory areas are regulated under different regulatory structures? What factors have contributed to differences in the regulatory structures?**

In the case of airports, the “airside” of the security barrier is regulated by the CAA under its own Civil Aviation Rules and also in compliance with international agreements that include safety and security requirements. They are also subject to regulatory oversight of Health and Safety in Employment by the Ministry of Business Innovation and Employment.

The regulatory systems overseen by MaritimeNZ and the CAA are similar in that each:

- **Exist within an international regulatory framework as part of an international convention, and other agreements to which New Zealand is a signatory;**
- **Is bound to a greater or lesser extent by the international conventions and bilateral agreements;**
- **Has a separate Act and Rules determining the operation of the system that it oversees;**
- **Focuses on a specific transport sector;**
- **Has similar legislative and regulatory instruments, and regulatory tools, to ensure compliance within its sector; and**
- **Is funded in a similar way (that is, predominantly through fees charges and levies), set in a triennial cycle.**

But, while the aviation system is a closed system (that is entry and exit are controlled), the marine system is a partially open system (that is licences and qualifications are not a necessary precursor to access the sea).
Institutional Form, independence and Capture (pp22 – 27)

- The institutional form of a regulator is in many ways not all that relevant, other than for the purposes of the regulated parties (participants in CAA language) being clear about the powers/duties/obligations of the organization exercising regulatory authority
- The form can be influenced by the long-term nature of the desired regulatory outcomes arguably the longer-term the focus, the more reason to have a 'stable' institutional form (although that is not a guarantee!)
- Technical adjustment of rules would be useful- bearing in mind that Rules are essentially tertiary legislation and sound processes in which both Government and public can have confidence in are in place. There is also a need to ensure that Rule making processes are not captured (e.g., by the sector, or by technocrats or policycrats, etc.), such that technical adjustments are appropriate, do not create unreasonable burdens, and maximize safety or other benefits
- Inability to adjust rules from a technical (or technological) perspective is an issue for sectors where technology or international requirements move faster than domestic rule making processes
- Civil Aviation Act review is considering a number of these issues raised by the Commission with respect to institutional form.
- Civil aviation is 'bi-polar' in the NZ context -there are a couple of big organisations (e.g., AirNZ or Airways NZ) and many small organisations
  - The potential for capture by the sector or the larger or smaller players is quite real, especially given most of the 'expertise' the organization relies upon comes from industry
  - The nature of the decisions being made, particularly around standards are long-term (e.g., Air Space and Navigation Plan which has a time horizon of between 5 and 20 years to enable capital investment)
  - Consistency is necessary to create stability and to some extent predictability
  - Government owned (or partially owned) enterprises are subject to civil aviation regulation - strengthens an argument for the need for the regulator to be independent
  - Institutional form, ability to make technical adjustments to Rules may be influenced by being a high risk, high reliability industry.

14. Are the dimensions of regulator independence discussed in Figure 4.3 helpful in thinking about New Zealand regulators?

Yes.
15. Which of these dimensions of independence is most important to ensure a regulator is seen to be independent?

Each is important at differing times and in differing circumstances. We are not sure there is one over-riding dimension, but Regulation Independence (setting the rules) is possibly weaker than the other three for the CAA.

This is evidenced in CAA’s inability to change Aviation Rules independently, and the Rules process being worked through the Ministry of Transport on behalf of the Minister (reflecting the Rules status as tertiary legislation. ‘Technical’ issues (e.g., the type of equipment an aircraft must carry) are embodied in rules and subject to the same degree of ‘political’ process as those elements which are specifying/describing intended safety outcomes. Inclusion of technical elements in the rules-making process slows the ability to keep rules ‘technically current’. So, a risk exists if a Rule containing technical requirements which are out-of-date, or precluding use of modern technology which could have clear safety benefits.

The CAA director does, however, issue CAA Advisory Circulars contain information about standards, practices, and procedures that the Director has found to be an Acceptable Means of Compliance (AMC) with the associated rule.

The consequence of this structure is that if the CAA wants, or needs, to amend a Rule for a simple technical issue, then a full Rules Amendment process must be undertake. This is akin to reviewing a Regulation, with consultation and a Regulatory Impact Statement (RIS) required each time. This is a cumbersome, time-consuming and expensive process for what may only be a minor change.

Further, 5 or 6 rules are amended each year – resulting in a slow process for ‘technical adjustment’.

Refer also to our response to question 41.

16. Can you provide examples of where a lack of independence or too much independence according to one of these dimensions undermines the effectiveness of a regulatory regime?

In an environment of high paced technological change, the CAA currently lacks the ability to carry out ‘minor’ technical adjustments to Rules without a full blown rules amendment process, including a full Regulatory Impact Statement, etc. This means the current aviation regulatory regime in New Zealand is not:

- responding quickly enough to deliver safety improvements in a timely fashion;
- keeping up with technology change;
- allowing the Civil Aviation Authority to have confidence that its resources are appropriately focussed on the risks of the aviation industry and that it is intervening to best effect;
- responding to new international standards quickly enough; or focusing the aviation industry on proactively identifying and managing risk.
This is very expensive in staff and other resources for both the Authority (CAA) and the Ministry of Transport, and in political time. The resulting time delays cause “technology lag” in Rules, with compliance and delay costs for participants and users.

In addition, the CAA lacks the ability to carry out minor adjustments to fees, charges and levies to respond to changing market conditions. Because CAA’s revenue stream is based significantly upon passenger numbers, fluctuations in those numbers can have a significant effect on CAA’s cash flow and financial position.

Having the ability to operate as a business (including setting fees, charges and levies) tends to drive efficiency and effectiveness better than acting as a regulator where efficiency and effectiveness are driven primarily through the political process.

17. **What should be the limits of regulator independence? What sorts of regulatory decisions should be the preserve of Ministers rather than officials?**

The Cabinet Office Manual provides at Section 5, that the following should be referred to Cabinet (through the appropriate committee):

- a. significant policy issues;
- b. controversial matters;
- c. proposals that affect the government's financial position, or important financial commitments;
- d. proposals that affect New Zealand’s constitutional arrangements;
- e. matters concerning the machinery of government;
- f. discussion and public consultation documents (before release);
- g. reports of a substantive nature relating to government policy or government agencies;
- h. proposals involving new legislation or regulations;
- i. government responses to select committee recommendations and Law Commission reports;
- j. matters concerning the portfolio interests of a number of Ministers (particularly where agreement cannot be reached);
- k. significant statutory decisions (see below);
- l. all but the most minor public appointments;
- m. international treaties and agreements;
- n. . . .

(part 5.12 edited)

Many statutes provide for individual Ministers to take certain actions or make certain decisions. In each case, the Minister must ensure that he or she considers all relevant matters and does not take into account irrelevant matters. Relevant matters will vary depending on the particular statute under which the decision is to be made. (part 5.31-5.32)

The CAA therefore ensures that Ministers are engaged in a way that enables them to fulfill their responsibilities in accordance with the relevant statutes, and the current conventions for relationships and support between Crown Agencies and their Ministers (e.g. no surprises, etc.).
Where legislation empowers the Minister to direct an independent regulator, the limits of the power to direct the regulator should be clearly set out. The legislation should be clear about what can be directed and when. Any direction made by the Minister or politicians should be documented and published. In the CAA’s case this is so (refer s72 of the Civil Aviation Act 1990).

Any communication between the Minister, the Ministry and an independent regulator should occur in a way that does not compromise the actual or perceived independence of regulatory decision-making.

18. Do you agree with the list of features in Figure 4.3 which indicate a need for more or less regulatory independence? What other criteria are missing?

The criteria provided in the issues paper can be read to be inclusive.

The discussion about independence from the sector being regulated is interesting. Many commentators in this area refer to independence from the regulated sector as being critical:

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<tr>
<td>• An arm’s-length relationship with regulated firms, consumers, and other private interests.</td>
<td>• Independence from government.</td>
<td>• Independence from the interests of the regulated industry</td>
</tr>
<tr>
<td>• An arm’s-length relationship with political authorities.</td>
<td>• Independence from stakeholders.</td>
<td>• Legal personality, separate from the ministries</td>
</tr>
<tr>
<td>• The attributes of organisational autonomy—such as earmarked funding and exemption from restrictive civil service salary rules—necessary to foster the requisite expertise and to underpin those arm’s-length relationships.</td>
<td>• Independence in decision-making (substantial competencies and actual decision making powers).</td>
<td>• Clear and sufficient competences</td>
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<td>• Organisational autonomy (in charge of their own budget and personnel policy).</td>
<td>• Financial independence from the state (revenues preferably from participant fees)</td>
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<td>• Board members:</td>
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<td></td>
<td></td>
<td>o meritocratic and impartial appointment process</td>
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<td>o fixed mandate, removal for cause only</td>
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<td>o no direct or indirect financial interests in the sector, no conflicts of interest</td>
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<tr>
<td></td>
<td></td>
<td>• Sufficient, highly qualified personnel and own management policy</td>
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<tr>
<td></td>
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<td>• Sufficient equipment (budget, buildings, IT technology, etc.)</td>
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However, in the CAA’s case, the Civil Aviation Act 1990 (at S72A) expressly provides for two of the Authority Board members to be representative of the industry:

(4) The Minister shall appoint as members persons who the Minister considers will represent the public interest in civil aviation.


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(5) Before appointing 2 of the members, the Minister shall request, from such organisation or organisations as the Minister considers represent those who have a substantial interest in the civil aviation industry in New Zealand, the names of persons such organisation or organisations consider proper candidates for appointment to the Authority.

(6) [Repealed]

(7) A person may hold office as a member concurrently with any other office, except any office or appointment under the Transport Accident Investigation Commission Act 1990.

(8) Neither the Director nor any other employee of the Authority may be a member of the Authority.

There is a similar provision in the Maritime Transport Act 1994, in regard to MaritimeNZ.

Under the existing Civil Aviation Act, the Minister is required to consult with industry for the names of people who industry thinks appropriate to be members of the Authority. The underlying premise is that industry has a substantial interest in the civil aviation sector, and therefore a strong interest in the members of the Authority. This arrangement is consistent with the Director having independent functions and powers for which he/she is not accountable to the Board with respect to the case-by-case decision-making.

If the Board exercised the powers of the Director (i.e., made decisions about the privileges an organisation or individual holds), then arguably Board members should not have interests in, or be from, the civil aviation industry. If they did, then that could give rise to either perceptions of, or actual issues of, bias, especially in relation to decisions that grant or revoke privileges, or when decisions are made to take enforcement or administrative actions. This could lead to an erosion of the credibility of the NZ civil aviation system, and/or the introduction of opportunity for corruption of decision making processes.

19. **Is regulatory capture more or less likely in a small country? Can you provide examples of capture in New Zealand?**

When the majority of technical expertise that a regulator can recruit from is in the regulated industry, there is a risk of capture with personnel moving between the regulator and the regulated.

Other than recreational participants, the CAA’s stakeholder community is relatively small. Thus the knowledge and skills relating to aviation and aviation technology tends to be sourced from a small number of people and organisations, with a relatively high degree of interpersonal familiarity, and potentially strong bonds (personal and/or business).

The mind-shift necessary in moving from the industry into the regulator is huge; somewhat akin to the move from ‘poacher’ to ‘gamekeeper’. Such moves are frequently end of career moves (for example, the majority of the CAA’s Airlines Flight Operations team are ex-airline employees). Such moves offer the potential for capture or antagonism (in limited numbers).

20. **Are there other institutional forms for government-established regulators?**

The New Zealand regulatory system is largely governed through Acts, Regulations, Rules and cited Standards and Codes of Practice. To ensure products do not cause harm or injury that they are safe and suitable for use, legislation grants controls to government and industry regulators. Regulators are responsible for developing regulations and standards for products
or services. Businesses may then be required to comply with multiple regulatory regimes mandated by different regulators. (MBIE Website)

New Zealand has a number of differing forms of regulatory organisation. Four important features set them apart from departments.

- **They are not part of the legal Crown**, but are generally bodies corporate in their own right. This means that they contract, employ staff, hold property and engage in legal proceedings in their own name. Those that receive Government funding normally do so through a Vote. Typically Crown entities are governed by a board, which is appointed by the Crown. The board in turn appoints the chief executive.

- **Crown entities operate at arms-length from their Responsible Minister.** Usually, specific legislation is used to set up each Crown entity, and this legislation, together with the relevant parts of Public Finance Act 1989, defines the relationship between the Minister and the entity. As a result, there is nothing comparable to the shared legal and conventional framework under which Public Service departments operate. Consequently the role played by the Minister varies much more from entity to entity than is generally the case for departments (or SOEs).

Crown entities range from those that are basically agents of the government of the day, e.g. Health Funding Authority (HFA), to those that are quite independent, e.g. Police Complaints Authority. In recent work, the labels Crown Agent, Autonomous Crown Entity and Independent Crown Entity have been used to capture the observed range within the overall Crown entities category.

- **Ministers’ formal powers of direction are far more structured** (and public) than is the case for the Public Service, and may be constrained or even non-existent. Some Crown entities may not feel bound by the conventions that apply to the Public Service, and may, for example, disagree publicly with Government policy.

- **A company would be the preferred way of organising activities that are commercially productive**, or where ease of exit was desired (although a trust would also be a possibility in the case of non-commercial activities). In general, an SOE is the preferable form for arranging Government-owned commercial enterprises because they have a clearer commercial focus than Crown Owned Companies (CrOCs). A CrOC might be considered where the organisation was to have both commercial and non-commercial objectives, or for technical reasons (e.g. allowing less than 100% Crown shareholding).

While allowing a private organisation to carry out a regulatory function would be unusual for constitutional reasons some agencies do enable private organisations to carry out limited regulatory functions under delegation. For example, in the case of the CAA, the Director has issued delegations to many organisations to approve certification and licensing (under strict conditions). (See our answer to question 44)

There are several broad reasons that support the growing use of third-parties in regulation, internationally. In many areas, regulatory agencies are faced with assuring the compliance of an increasing number of entities and products without a corresponding growth in resources.
Third-party assessors may leverage private resources and expertise in ways that make regulation more effective and less costly. In comparison with other regulatory approaches, third-party assessment may also enable more frequent compliance assessment and more complete and reliable compliance data. Because agencies can authorise third parties located in other countries to undertake assessment activities, third-party assessment may be particularly effective when regulated products or processes are international in scope.

Regulatory third-party programs raise a host of important questions. Because third-party programs represent a partial privatisation of the public function of implementing and enforcing regulatory law, they are a form of “public-private governance,” in which private actors play roles that are traditionally viewed as governmental in nature. While third-party assessment may increase regulatory compliance or otherwise improve the performance of regulated entities and products, these programs also pose risks if they are not well-conceived, well managed and have appropriate levels of oversight.

Agencies that establish third-party delegations generally cannot or do not delegate their regulatory authority to compliance assessment bodies. Rather, agencies authorise compliance assessment bodies to perform certain technical tasks to assess conformity, and the regulatory agency relies on these assessments in their own enforcement of regulatory requirements. The goal is to leverage private expertise and resources to serve regulatory objectives. Because the regulatory agency must remain ultimately responsible for achieving regulatory objectives, it is vital to maintain public oversight of third-party assessment activities.

In another example, some professional bodies exercise statutory powers in respect of their members (Accountants, Lawyers, Doctors, Engineers, etc.) whose professional regulating bodies are Associations protected by law.

Different types of statutory corporations vary significantly from each other in terms of their powers, accountability arrangements and the relationship with their Minister depending on the type of function they undertake, as well as the context in which they operate. Is the organisation expected to be independent of the Minister (e.g. Police Complaints Authority), or is it merely separate from the Minister but still subject to significant ministerial control (e.g. the Careers Service)?

Another key aspect of the governance arrangements for any organisation is the scope of its activities and its powers. In general, these bodies will have the powers of legal persons. However, it is common for them to be constrained in terms of some of those powers, e.g. the power to borrow. The desirability of doing so is clearest perhaps, for small regulatory bodies.

In the UK, the civil aviation regulator is a Crown Company, which fulfils the roles of economic regulator, safety regulator, and is also a trading organisation. It is obliged to make a profit and pay a dividend.

In New Zealand, the CAA, the civil aviation regulator, regulator is a Crown Entity, classified as a Crown Agency.
21. Do particular types of institutional form lend themselves to more enduring regulatory regimes?

Given the changes in public expectation of regulatory systems, and those of the Government’s “Better Regulation” programme, regulators which move their approach to a risk-based paradigm are more likely to succeed. In designing, applying, and developing regulatory systems, regulators should be attentive and responsive to five key factors:

i. the *behaviour, attitudes, and cultures* of regulatory actors;

ii. the *institutional setting* of the regulatory regime;

iii. the *different logics* of regulatory tools and strategies (and how these interact);

iv. the *regulatory regime’s own performance* over time; and

v. *changes* in each of these elements.

Sensitivity to *change* lies at the heart of acceptable regulatory performance. In virtually all sectors, regulatory challenges are in a state of constant shift. Thus, for instance, new risks and risk creators or risk exacerbators emerge, or are recognised, and uncertainties can harden into risks as events occur, knowledge develops, technologies and markets change, institutional structures are reformed, political and legal obligations alter, and public expectations and preferences move.

So, without prescribing a specific institutional form, endurance is more dependent upon:

- **Adapting to change**: if regulators cannot adapt to change, they will apply yesterday’s controls to today’s problems and underperformance will be inevitable.

- **Responsiveness**: it is best to regulate in a way that is responsive to regulated parties’ behaviour, attitude, and culture; institutional environments; interactions of controls; regulatory performance; and change.

- **Variety**: the challenges of regulation vary across the different regulatory tasks and astute regulators will deal with the variety of those challenges.

Malcolm Sparrow talks about the idea of the “Risk Based Regulator” in the following terms:

i. rather than the “Legal” model, focus on the “Expert” model of regulation;

ii. focus more on identifying and reducing “bads” (risks/harms), less on defining and promoting “goods”;

iii. practice “Regulatory Craftsmanship” (utilising a broader range of tools, organized around specific tasks);

iv. master new organisational methods (less program-centric, more problem-centric);

v. fit different regulatory structures to different classes of risk (structural versatility);

vi. use risk-mitigation as the foundation for partnerships;

vii. understand types of risk that pose special challenges.
This can be summarised as:

<table>
<thead>
<tr>
<th>Old/Legal Model (Compliance)</th>
<th>New /Expert Model (Expert Regulator)</th>
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<tbody>
<tr>
<td>• Enforcement</td>
<td>• Compliance assistance and ‘customer’ service</td>
</tr>
<tr>
<td>• Reactive</td>
<td>• Preventative</td>
</tr>
<tr>
<td>• Adversarial</td>
<td>• Partnership</td>
</tr>
<tr>
<td>• Hard</td>
<td>• Soft</td>
</tr>
<tr>
<td>• Incident response</td>
<td>• Problem Solving</td>
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</tbody>
</table>

This differentiation is similar to that between the ‘Scientific-technocratic’ and the ‘Socio-political’ models discussed in Appendix 1 and referred to in our response to question 25 below.

22. **What are the key differences of institutional forms in terms of their regulation, operational, institutional or budgetary independence?**

The SSC\(^8\) states that “There are several general, machinery of government, criteria that can be used to assist with evaluating the strengths and weaknesses of the various options for regulators. From the viewpoint of ensuring that the institutional arrangements operate efficiently and effectively, the following criteria have been considered:

- **Clear accountabilities** must be maintained. Without clear accountability, incentives to deliver against the Government’s desired outcomes are diminished.
- **Roles and responsibilities must also be clear.** If they are not, there is greater risk of gaps or overlaps in service delivery.
- The structural arrangements should **promote effective decision making and enable achievement of the Government’s desired outcomes.** This means assigning decision making responsibilities to those who have the best information and right incentives to consider the options and make the right trade-offs.
- The arrangements should **promote efficiency and effectiveness;** that is, decision making should lend itself toward selecting the right mix and level of outputs (effectiveness) and further that those outputs are produced with no waste of resources (efficiency). This may require input from specialist personnel the availability of which is relatively scarce. Accordingly, there is even greater onus than normal to ensure that resources are utilised as effectively as possible.
- The arrangements should also be **cost effective.** Costs in this context include both the costs incurred by the regulator as well as costs imposed on others including compliance costs for industry.
- **Risks should be effectively managed** as part of achieving the Government’s objectives (which is not to say that there should be no risk).”

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23. Are there aspects of regulatory independence that are more or less important in regulating state power or government-provided/funded services?

CAA regulates other state owned organisations (SOE, Crown Companies, Crown Entities) so independence in regulatory action is essential. These include AirNZ, Airways NZ, and the Aviation Security Service).

This requires the CAA’s regulatory staff to have, in addition to technical expertise:

- political nous;
- trust and confidence of the participants;
- an understanding of sector-wide risk; and
- an understanding of the Machinery of Government, and the inter-relationships between the various entities, and their place in both the Government structure and the aviation sector.
24. Are there other types of governance structure than the three listed (above)? How well do they work?

The CAA’s governance structure is, perhaps, a fourth option.

S72 I of the Civil Aviation Act 1990, provides:

(1) The Authority shall from time to time appoint a chief executive of the Authority, who shall be known as the Director of Civil Aviation.

(2) The Director shall have and may exercise such functions and powers as may be conferred or imposed on the Director by this Act, or regulations or rules made under this Act, and such functions and powers as may be delegated to the Director by the Authority under section 73 of the Crown Entities Act 2004.

(4) In performing or exercising any functions or powers in relation to—

(a) the granting of aviation documents; or

(aa) the issue, suspension, or revocation of medical certificates; or

(b) the suspension of aviation documents; or

(c) the revocation of aviation documents; or

(d) the granting of exemptions; or

(e) the enforcement of the provisions of this Act or any other Act, or of rules or regulations made under any such Act,—

in respect of any particular case, the Director shall act independently and shall not be responsible to the Minister or the Authority for the performance or exercise of such functions or powers. (emphasis added)

In making such decisions, the Director follows a process that includes accurate definition of the actual safety issues involved in a particular case, the selection of the appropriate regulatory tool and a comprehensive natural justice process. In all cases the Director will be looking to see that any recommendations made have included consideration of the CAA’s Regulatory Operating Model and Regulatory Tools Policy.

Decisions are not arrived at lightly and the Director has a very thorough and robust process in place to ensure the best decision possible is made in the interests of maintaining aviation safety in New Zealand.
In some cases, these decisions are challenged through the court system and it is important to ensure the decision is the right one and that safety is maintained.

**The Keith Report on constitutional aspects of civil aviation authorities**

In 1991, Sir Kenneth Keith reported to Cabinet on constitutional aspects of civil aviation authorities. He highlighted the following:

- The Authority has an independent function that must always be seen to be implemented in an independent manner;
- Several of the Authority’s functions involve judgements about particular people, things and situations;
- Such functions are normally exercised by independent experts who are not subject to any specific control by Ministers or others who are ordinarily superior to them in an administrative hierarchy;
- The power [associated with the functions] should be exercised following proper process and independently by the responsible person, and subject to rights of appeal; and
- There need to be appropriate arrangements deployed to maintain public confidence in the decision-making process [used by the independent expert].

In the context of the current Civil Aviation Act, the Director has a number of functions vested in him/her. These functions are independent and exercised on case-by-case basis. The Director is also the Chief Executive of the Authority. Through this role, the Chief Executive is accountable to the Authority (the Board) for the management of the organisation. The Board has the ability to set direction and policy and to hold the Chief Executive to account for adherence to both. The accountability mechanism used is the employment relationship.

With respect to the Director’s independent functions and powers, the Board cannot interfere in the case-by-case decision-making used to exercise those powers. The Board can determine policy and procedure that the Director must give effect to when exercising those powers and functions. However, in setting policy and procedure, the Board needs to be mindful that it cannot set either in such a way that could be seen to interfere or constrain the Director’s independent functions. The focus of policy is thus on elements of ‘how’ decisions might be properly made and assurance that decisions are associated with the decision-making process (i.e., not on the actual decision).

A number of critical issues arise from either the current approach (the Director being an independent expert) or the alternative approach (i.e., the Board is the party vested with the powers and functions).

**Addressing the issues surrounding the Director holding independent powers and functions**

first, the critical issues are:

1. How does the Board attain assurance that the Director is reasonably and properly exercising his/her independent powers without being seen to influence case-by-case decision-making? and
2. Is there any evidence that the independent decision-making of the Director is being improperly exercised, and if so, why?

With respect to the alternative approach, the critical issues are:

1. How would perceptions of bias or conflict of interest be managed with respect to the exercise of the additional powers and functions?

2. Assuming the Board delegates the additional functions to the Chief Executive, how would it then gain assurance that the decisions being made are reasonable and that sound process has been followed?

3. Would industry be concerned about the absence (or reduced presence) of Board members from the civil aviation sector, and thus lose confidence in the Authority?

4. For complex decisions, where the ability to delegate is not permitted under current legislation (e.g., revocations), how would the Board manage the process and make the decision when it has to be the demonstrable decision-maker?

**Which Option?**

Each option has its strengths and weaknesses. The tables below attempt to describe these.

<table>
<thead>
<tr>
<th>Director has independent powers and functions</th>
<th>The Authority has all powers and functions vested in it</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pros</strong></td>
<td><strong>Cons</strong></td>
</tr>
<tr>
<td>Enables complex and time consuming decisions to be made by an individual</td>
<td>Requires clear and unambiguous processes to be followed in order to maintain confidence</td>
</tr>
<tr>
<td>Enables what are dominantly 'technically driven decisions' to be made by an individual with technical expertise</td>
<td>Requires good assurance processes that discriminate between the actual decision being made, and the discharge of the power or function being properly undertaken (adds complexity to assurance processes)</td>
</tr>
<tr>
<td>The Authority can delegate powers and functions it is able to, to role holders within the organisation and hold those individuals to account for both the way in which they make a decision and the decision they make</td>
<td>The Authority is seen by industry to be accountable for all decision-making within the organisation</td>
</tr>
<tr>
<td>For those functions the Board cannot delegate, its governance and management role can become confused</td>
<td>Requires clear and unambiguous processes to be followed in order to maintain confidence</td>
</tr>
<tr>
<td>Director has independent powers and functions</td>
<td>The Authority has all powers and functions vested in it</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td><strong>Pros</strong></td>
<td><strong>Pros</strong></td>
</tr>
<tr>
<td>Reduces the perception or potential for conflict of interest or bias in decision-making</td>
<td>Decision-making could be viewed as being technically correct but disconnected from the policy settings surrounding the power and function</td>
</tr>
<tr>
<td>The governance and management functions of the Board are kept separate with respect to the Director’s functions and powers</td>
<td>For those functions/powers that cannot be delegated, the Board must operate in such a way that those decisions can be made in a timely way, and the Board must be able to demonstrate that it has made the decision (not merely accepted a recommendation)</td>
</tr>
<tr>
<td>Decisions can be appealed to a District Court</td>
<td></td>
</tr>
</tbody>
</table>

On balance, the status quo has some advantage over the alternative, with the primary benefit being the clearer separation between the Boards’ governance role, and the technical decision-making that is exercised by the Director.

At present, the CAA’s management provides a good deal of information in Board papers as a means of providing the Board with assurance around the proper and prudent exercise of the Director’s independent powers.

**25. What type of governance and decision-making structures are appropriate for different types of regulatory regime?**

Rather than pre-selection of a particular decision making approach (with all its attendant difficulties), it is argued that a flexible framework is required that enables elements of both the “Legal” model, and the “Expert” models of regulation to be invoked where appropriate. This is particularly the case regarding decision making and Impact Assessments.

In the appendix is a summary of the ‘Scientific-technocratic’ and ‘Socio-political’ modes of decision making, that are similar to the Old/Legal Model (Compliance) and the New /Expert Model (Expert Regulator) discussed by Sparrow, and shown in our response to question 21.

See also our response to question 24.
26. How effective and consistent are the review and appeals processes provided for in New Zealand regulatory regimes?

Appeals and reviews of Decisions of the Director are provided for in Part 6 of the Civil Aviation Act.

The current process of appeals against decisions of the Director of the CAA to the District and superior courts seems adequate. There are usually fewer than five (5) such events annually, and in the last 5 years, there have been 15 CAA appeals.

Requests to review a Medical Decision go to a specialist Convenor. There have been 71 requests to the Convenor for reviews on medical matters in the last 5 years. Of those none were dismissed; four (4) proceeded to the District Court on appeal, and are included in the numbers reported above.

Similarly, s424 of the Maritime Transport Act 1994 provides that appeals in that sector go to District Court.

27. Can you provide examples where the review and appeals processes provided for are well-matched or poorly suited to the nature of the regulatory regimes?

The CAA believes the current system of appeals is well matched to the regulatory regime.

28. What are the advantages and disadvantages of a general merits review body like the Australian Administrative Appeals Tribunal?

The jurisdiction of the Australian Administrative Appeals Tribunal covers a huge range of executive decision-making (including e.g. issuing communications interception warrants). In some areas a high level of discretion is involved. In others the Tribunal is acting more like a court. In all cases, the role of the Tribunal is to substitute its decision for the decision of the original decision-maker. It stands in the shoes of the original decision-maker. It must arrive at the correct or preferable decision in the cases before it: correct if only one decision is available; preferable when it is choosing from a range of equally satisfactory decisions (a merits review). Merits review can be defined by the potential result.

In every case before it the Administrative Appeals Tribunal is empowered to affirm, vary or set aside the decision it is reviewing. Where a decision is set aside the Tribunal can substitute a decision or return the matter to the decision-maker with a direction about how the decision is to be remade. The power to remake any decision before the Tribunal is complete.

The Tribunal has a significant reputation. “Other countries may care to look at it as a model for high quality and effective review of administrative decision-making”.

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9 appeals to the District Court were discontinued and 2 are on-going. 3 appeals were dismissed by the courts i.e. in favour of the DCA decision. 1 was initially upheld in the DC but later dismissed. Excluding two on-going matters, which will most likely be discontinued, 9/13 were discontinued and 4/13 were dismissed.
In 2007, a Cabinet paper noted that “The general trend in each jurisdiction is towards amalgamation - from the current 'specialist' tribunals towards a 'generic' model. Key drivers for the general trend include the need to strengthen coherence in administrative law terms and increase administrative efficiency, primarily, by amalgamating administrative arrangements and unifying (or standardising) processes across tribunals”\(^\text{11}\). However, that Cabinet paper excluded the decisions of the Director of the CAA from the Tribunal Reform programme.

The Australian Civil Aviation Safety Authority’s (CASA) experience of the Australian Administrative Appeals Tribunal relates to appeals regarding the testing of aviation document holders being tested for colour-blindness. Decisions in those cases seem to have been made on a case-by-case basis, with little or no thought for the overall systemic implications of compromising a long term policy position. This has had an effect upon the CASA’s adherence to the expected international standards, and in practical terms has led CASA to issue licences to pilots with colour deficiencies that have some limitations on duties, and which are not consistent with international standards.

On balance, the CAA believes the current system of appeals work well for the Authority and participants alike.


11 The Hon. Rick Barker; Cabinet Paper – Tribunal Reform Programme October 2007
29. **Can you provide examples of regimes where risks are borne by a regulator, regulated party, or the public/consumers, but they are not best-placed to manage those risks?**

Currently there is a significant risk for the Authority in that a large part of its regulatory revenue stream is based on fees charges and levies that are set by Regulation on a triennial basis, and driven by passenger numbers and market activity. Passenger numbers and market activity can fluctuate widely from estimates based on changes in the international and national economic and/or security situation.

The Authority cannot adjust its revenues in a short time-frame to respond to passenger number fluctuation.

A further risk borne by the CAA is its reliance on a ‘fit-for-purpose’ set of Civil Aviation Rules to enable appropriate regulatory oversight when the CAA itself has no ability to create or amend those rules.

Our answers to questions 15 and 16 clarify this.

30. **Can you provide examples of where the mix of funding sources contributes to the effectiveness or ineffectiveness of a regulatory regime?**

There is an underlying issue here, and that is whether revenue sources are seen as a legitimate form of intervention logic, not simply a means of funding a regulatory activity. The CAA’s current position is that the Authority sets its fees charges and levies in line with the guidance from the Treasury and the Office of the Auditor General. This can include using the level of those fees charges and levies to influence market, sector or individual behaviour, positively or negatively. However, the extent to which the CAA is able to use its charges and fees (but not levies) as a regulatory intervention is not necessarily supported by current central agency guidance, which focuses more tightly on costs falling where they lie, at a rate that recovers the cost of the activity (i.e., not as an intervention that encourages or dissuades certain types of behaviour).

Falling participation in activities upon which fees charges and levies are based can create constraint in revenues at a time when increased surveillance and regulatory activity may be necessary. Such a result could constrain the CAA from acting at a time when regulatory action may well be very desirable.

See also the response to question 16.

31. **Is the mix of funding sources for individual regulators consistent with their stated funding principles?**

Yes, in CAA’s case. The CAA’s funding sources are consistent with the requirements specified in the legislation.
The outstanding issue relates to the degree to which the price charged associated for the granting, maintenance and continuation of a privilege exercised under the Act is used as a regulatory intervention.

32. **Which New Zealand regulators (or regulatory regimes) provide good examples of open and transparent funding arrangements? Can you provide examples where the transparency of funding needs to be improved?**

All regulators whose funding is set by Regulation have funding transparency due to the process for making regulations, which includes the delivery of a Regulatory Impact Statement, and a mandatory consultation phase. The Authority’s fees are set using this mechanism.

However, the degree of this transparency is becoming increasingly onerous and expensive, particularly so because of the (apparent) expectation that the organisation will undergo a full business Value-for-Money review as a precursor to any fees charges and levies update. It may create the risk that the funding review process distracts the CAA from its primary role – aviation safety.

33. **Can you provide examples where a regulator’s funding arrangements support or undermine its independence?**

The amount of funding provided to CAA by way of the Multi Output Class Appropriation from the Ministry of Transport can constrain or enable delivery of CAA input to policy and international relationships. It may also constrain the extent of CAA’s delivery of HSE services on-board aircraft.

The Treasury’s recent redefinition of ‘policy’, in the very narrow way that they did, may well have been useful at a Departmental or whole-of-Government level. However, in terms of the CAA’s policy relationship with the Ministry of Transport, it has created inflexibility and has compromised the way in which the CAA can deliver quality policy advice to both the Minister and the Ministry of Transport (and other government departments), while being able to meet its own internal operational policy requirements.
34. What approaches are there to identifying, building, and maintaining workforce capability? How effective have they been?

The CAA has recently completed its Management Development Programme, and has now incorporated leadership development, operational certification, and individual professional development into its Learning Management Framework. This programme links directly to the CAA’s learning plan, which will help us to maintain long-term key technical competency. Current projects under this plan include:

- Training in regulatory skills has been delivered by Professor Malcolm Sparrow of Harvard University to all CAA managers and other selected staff.
- Surveillance training programme is complete.
- A Plain English course within the management development programme has been completed, and the initial project has been expanded to develop internal expertise in designing an Authority writing standard. Plain English writing aids are available for all staff members.
- Targeted health & safety training has been delivered and shared training within the sector, and courses from the Ministry of Business, Innovation and Employment will be used once the programme becomes operational.
- Risk management training
- Interviewing skills

The CAA induction programme targets recruiting, interviewing, on-boarding, certifying, and recurring learning requirements for all Authority employees. In addition we have begun a systematic project to identify individual learning, education, and development needs for each job position and validating those needs with current job holders.

The programmes in place are proving effective at increasing the capability of CAA’s managers and staff.

In addition, there is a clear requirement for the regulator to understand how regulatory action broadly impacts upon business and how different regulatory actions can impact upon a single business.

35. What restrains or enables a regulator to develop the capability they need in the New Zealand context?

Recruiting competent staff and establishing institutional competency can be a challenge. It can be difficult to find sufficient number of appropriately qualified and competent employees from within New Zealand’s own work force. Although there are very good engineers and other
professional staff members in almost every aviation safety regulator around the world, their expertise with economics, finance, regulatory principles (re: applying regulation) and public administration is limited, and the competition for such a skills mix is intense.

In order to attract and keep qualified personnel, salaries compatible with private sector or international salaries (usually much higher than New Zealand State service salaries) are required in some circumstances.

We believe that it is also important that the CAA’s staff members are empowered to innovate, take initiative and make decisions; or else, they could become unproductive as regulators or seek employment in the private sector.

36. Where are there gaps in regulator workforce capability? Can you provide examples?

While the CAA is able to recruit staff (subject to the constraints detailed in our response to question 35) we still have to provide additional professional development in being a regulator.

To enable new, and some current, staff to ‘join up’ their technical expertise with ‘being a regulator’, the CAA has been carrying out training for its own staff (and staff from other regulators) in the Art of being a Regulator using Prof Malcolm Sparrow from Harvard. This training has involved staff from other regulatory agencies as well (MaritimeNZ, Pharmac, etc.).

It is particularly important, given the move to performance-based regulatory regimes, for regulatory staff members to have a very high degree of technical expertise in the area they are regulating.

37. What is the potential to improve capability through combining regulators with similar functions, compared with other alternative approaches?

While there might be some potential to improve capability through combining regulators with similar functions, there is probably more potential through:

- developing support function/shared services activity

- joint training and professional development, particularly in regard to the ‘regulatory craft’.

The CAA already provides IT support for MaritimeNZ, and has arranged joint training events with other regulatory agencies, and participated in training events organised by others.

See our response to question 36.

38. When do changes to institutional arrangements work best to improve capability, and when are other solutions preferable?

Changes to institutional arrangements work best to improve capability when they focus on freeing up under-used or wrongly prioritised resources for redeployment to higher priority activities to meet the organisation’s mandate more effectively.

One institutional change that might improve regulator capability is the further development of a common regulatory capability development approach across the State sector. This has
commenced with the Compliance Common Capability Programme (CCCP) 12. Such an approach leads to:

- **A development–focused approach**: – provides clarity of role, focuses on professional development, and provides effective means of supporting it;

- **A more effective approach**: – enables regulators to be responsive, as well as proactive, to new risks across the system, employ effective deployment of scarce skills and experience, through having an understanding of the system as a whole;

- **A single approach that is more efficient and sustainable**: – more likely to be fully embedded into staff development processes and culture, and therefore more likely to achieve sustained impact, whereas separate and different approaches will be cumulatively cumbersome, inefficient, and likely to be less well applied and embedded. In addition there is a critical mass argument in terms of development provision which adds to the overall efficiency of the approach;

- **A more flexible and future proofed approach**: – content management and design of the development process combine to provide a flexible product which can be tailored to diverse requirements and future changes of approach, without incurring major additional costs; and

- **Getting more from the investment made in training and development**: – A common core of competencies and aligned approach makes it possible to gain economies of scale in training and development provision, and from investment in training and development. Specifically, this is achieved by:
  
a) focusing development more closely on business needs and prioritising accordingly;

  b) promoting solutions which are more cost effective than the default approach of a single training course; and

  c) the use of economies of scale in training provision.

However, not all regulators are alike, and while there may be a ‘common core’ of regulatory competencies, there are other sector specific competencies that must be developed as well.

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12 The CCCP is a joint Department of Internal Affairs (DIA) and Learning State (the industry training organisation for the public sector) initiative. The CCCP is aimed at delivering better and smarter public services for less by supporting a government-wide, collaborative, problem-solving, and risk-based approach to compliance issues. Compliance activities include auditing, licensing, education, monitoring, surveillance, and investigation. See the [CCCP website](#) for further information.
Monitoring and Enforcement, Regulatory Tools

39. Can you provide examples of strengths and challenges in the way regulators monitor and enforce regulations? What are the consequences?

Malcolm Sparrow \(^{13}\) observes that “Citizens do not expect that governments will be able to avoid all disasters or contain all harms. But they do expect government agencies to provide the best protection possible, and at a reasonable price, by being:

a) **Vigilant:** so they can spot emerging threats early, pick up on precursors and warning signs, use their imaginations to work out what could happen, use their intelligence systems to discover what others are planning, and to do all this even before much harm is done

b) **Nimble:** flexible enough to organize themselves quickly and appropriately around each emerging risk rather than being locked into routines and processes constructed around the risks of a preceding decade, and being more problem centric than program-centric

c) **Skilful:** masters of the entire intervention toolkit, experienced (as craftsmen) in picking the best tools for each task, and adept at inventing new approaches when existing methods turn out to be irrelevant or insufficient to suppress a risk. These notions are fundamental to effective risk control.”

In CAA’s case the strengths and challenges can be characterised as:

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A high level of aviation technical expertise</td>
<td>• Maintaining the confidence and trust of Ministers, the public and the sector;</td>
</tr>
<tr>
<td>• Increasing use of non-coercive regulatory tools;</td>
<td>• Risk is becoming increasingly behavioural as safety-related technology improves;</td>
</tr>
<tr>
<td>• Greater focus on ‘human factors’ and behavioural change;</td>
<td>• Difficulty in keeping in step (if not ahead) of technology development and sector complexity;</td>
</tr>
<tr>
<td>• More subtle surveillance activity;</td>
<td>• Increasing public expectations of ‘no-risk’ results in high-risk aviation sports/activities;</td>
</tr>
<tr>
<td>• Improved data analysis and information sharing;</td>
<td>• Media seeks to ‘blame’ regulators (and Investigators) for failure to ‘keep people safe’ in high-risk aviation sports/activities; and</td>
</tr>
<tr>
<td>• Improving relationships with the regulated sector; and</td>
<td>• In a high-risk high reliability industry that has had very few failures (such as aviation) there is a challenge of maintaining regulator relevance and public understanding of the sector.</td>
</tr>
<tr>
<td>• Better use of various media to promote the ‘safety story’.</td>
<td></td>
</tr>
</tbody>
</table>

This has been achieved through:

- Increased/improved engagement with the Minister;
- Increasing sophistication in stakeholder engagement;
- Improving media relationships;
- Recognition of the need to ‘tell the safety story better’ – what impact does CAA have?
- Better strategic foresight/insight;
- Recruitment based on behavioural characteristics as well as technical skill;
- Competency based professional development;
- Increased training in ‘soft’ skills (for example, interview techniques); and
- Improved performance management systems.

40. Do New Zealand regulators have access to a sufficient range of enforcement tools? If not, what evidence is there to suggest that a broader range of tools would promote better regulatory outcomes?

Regulatory agencies have access to a wide range of regulatory tools (both coercive and persuasive) to encourage and achieve compliance. Different tools and combinations of tools can be deployed at different times in the engagement cycle to achieve the desired regulatory outcomes.

Some of these tools are proactive and help prevent non-compliance and harm, and others respond to non-compliance and areas of concern. The choice of tool or combination of tools is influenced by informed assessments of how regulators can best minimise harm, maximise benefit, change participant behaviours, and promote sustained compliance.

The CAA deploys the following Regulatory Tools and associated interventions:

**Education and safety promotion** interventions such as:
- development of guidelines;
- safety publications;
- conduct of safety seminars;
- dissemination of safety occurrence trend information and safety reviews;
- promulgation of safety sector risks and engagement with stakeholders to develop safety initiatives;
- training courses;
- the conduct of safety investigations for the purposes of determining incident and accident causes and improving safety.

**Certification, Monitoring and Investigation** interventions such as:
- certification (including certificate amendment and certification on re-entry after a period of operation in the system);
• safety monitoring activities including audits, inspections, no-notice checks, focused special purpose audits and inspections, with formal findings, corrective actions, and follow up as needed to support risk reduction through a willing return to compliance;
• reactive monitoring by collection of occurrence information and mandatory reports;
• reactive measures including investigations of document holders in response to an identified safety issue or concern to establish levels of safety performance and inform further decision making on the need or otherwise for further interventions;
• proactive risk management and engagement with affected participants.

Administrative Actions such as
• removal or mitigation of unacceptable risks to safety through administrative actions to suspend, revoke, or impose conditions on, an aviation document or detain aircraft, seize aeronautical products or impose prohibitions and conditions.

Law Enforcement Action such as:
• investigation of alleged offences;
• issuing of infringement notices;
• prosecutions.

Other
• Rule development and amendment

Other agencies, with which we are familiar, have similar tools (e.g. MaritimeNZ and the Department of Internal Affairs Regulatory Compliance group).

41. What sort of regulatory regimes are suited to more (or less) discretionary enforcement?

CAA has a mix of compliance requirements and many risk-based areas, within a legislative and rule structure supported by Advisory Circulars from the Director:

Regulatory Hierarchy

Legislation

The Civil Aviation Act 1990, Part 3 empowers the Minister to make rules for both general and specific purposes. Civil Aviation Rules (CARs) have the same force as regulations. The Part includes provisions for:

Part 3: Rules
28 Power of Minister to make ordinary rules
29 Rules relating to safety and security
29A Rules relating to airspace
29B Rules for noise abatement purposes
30 Rules relating to general matters
31 Power of Director to make emergency rules
32 Procedures relating to rules
33 Matters to be taken into account in making rules
34 Procedure for making ordinary rules
34A Governor-General may make ordinary rules
35 Procedure for making emergency rules  
36 Incorporation by reference  
37 Exemption power of Director

**Rules (Regulations)**

Each Civil Aviation Rule made by the Minister of Transport must contain a statement specifying the objective of the rule, and the extent of any consultation undertaken.

**Advisory Circulars**

Advisory circulars are developed as part of the Rule Development Process. Draft versions are published for public comment before being issued in final form. Advisory Circulars contain information about standards, practices, and procedures that the Director has found to be an **Acceptable Means of Compliance (AMC)** with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and consideration is given to other methods of compliance that may be presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate Advisory Circular. An Advisory Circular may also include **guidance material (GM)** to facilitate compliance with the rule requirements. Guidance material must not be regarded as an acceptable means of compliance.

The consequence of this structure is that if the CAA wants, or needs, to amend a Rule for a simple technical issue, then a full Rules Amendment process must be undertaken. This is akin to reviewing a Regulation, with consultation and a Regulatory Impact Statement (RIS) required each time. This is a cumbersome, time-consuming and expensive process for what may only be a minor technical change. See our responses to questions 15 and 16.

This can be compared with the hierarchy of civil aviation legislative and regulatory instruments in Australia, for example.

The table below shows the differences in highly summarised form:

<table>
<thead>
<tr>
<th>Instrument</th>
<th>New Zealand</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rules</td>
<td>Civil Aviation Rules (CARs):</td>
<td>Civil Aviation Safety Rules:</td>
</tr>
<tr>
<td></td>
<td>• Drafted by CAA for the Ministry of Transport</td>
<td>• Drafted by legislators</td>
</tr>
<tr>
<td></td>
<td>• Contain most of the technical specification within the Rule</td>
<td>• More general in nature</td>
</tr>
<tr>
<td></td>
<td>• Require full regulation review process to amend, delaying technical currency</td>
<td>• More performance based</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Less technical specification</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Require less frequent amendment to ensure technical currency</td>
</tr>
<tr>
<td>Instrument</td>
<td>New Zealand</td>
<td>Australia</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Technical Standards</td>
<td>Not provided for in New Zealand’s regulatory system</td>
<td>Manual of Standards:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contains technical standards and specifications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Able to be amended by the Director of Civil Aviation (after due process)</td>
</tr>
<tr>
<td>Advisory Circulars</td>
<td>• Contain information about standards, practices, and procedures that the Director has found to be an Acceptable Means of Compliance (AMC) with the associated rule</td>
<td>• Civil Aviation Advisory Publications (CAAPs) provide guidance and information in a designated subject area, or show a method acceptable to an authorised person or CASA for complying with a related Civil Aviation Regulation. CAAPs should always be read in conjunction with the referenced regulations.</td>
</tr>
<tr>
<td></td>
<td>• May also include guidance material (GM) to facilitate compliance with the rule requirements</td>
<td>• Civil Aviation Advisory Publications (CAAPs) are advisory only, providing recommendations and guidance to illustrate a method, or several methods, not necessarily being the only method by which legislative requirements may be met. They also provide a means of illustrating the meaning of certain requirements by offering interpretive and explanatory guidance.</td>
</tr>
<tr>
<td></td>
<td>• Able to be amended by the Director of Civil Aviation (after due process)</td>
<td>• The CAAPs relate to the Civil Aviation Regulations (1988) only. The new Civil Aviation Safety Regulations (CASR 1998) are supported by Advisory Circulars (ACs).</td>
</tr>
<tr>
<td>Publications</td>
<td>Many publications providing information and guidance</td>
<td>Many publications providing information and guidance</td>
</tr>
</tbody>
</table>

Work, currently underway, on a review of the Civil Aviation Act will include consideration of possible changes to facilitate a more timely response to technical matters in civil aviation rules.

42. Can you provide examples of where a regulator has too much or too little discretion in enforcing regulations? What are the consequences?

While not wishing to rehearse the Pike River tragedy, the Commission’s report delivers four key lessons about how to make safety regulation effective.

1. Safety regulation that permits entry-monitoring-exit control provides better opportunities for system failures to be understood and effectively managed. Arguably, in the case of Pike River, the first failure in the regulatory schema was the “break-up” of the Mines Inspectorate which operated an entry-monitoring-exit model. Replacing the model with one that required different agencies to co-operate and manage their differing and potentially conflicting drivers created opportunity for safety risk to be poorly managed.
There was no longer an over-arching view that enabled a common intent to be universally applied.

2. The Commission’s recommendation for a stand-alone workplace health and safety agency reflects a view that single focus agencies are likely to be more successful than agencies with multiple purposes. However, this recommendation of itself will not resolve the conflict between competing policy imperatives. If Pike River teaches government agencies anything, it is the need to understand and respect the roles of different agencies, and to ensure that mutuality of respect and understanding exists at all operational levels in an agency.

3. Effective safety regulation is only possible through good information flows which enable risk assessments, and thus regulatory interventions, to be informed by data and evidence. Pike River reinforces the need for two related elements in any regulatory schema:
   a. Regulator contact with employees to help verify management and owner claims about safety systems; and
   b. Mandatory reporting systems that enable the regulator to have visibility of actual accident and incident events.

4. Safety regulators need to have the capability and capacity to understand and intervene in the industry they are regulating. The Commission’s report clearly shows the consequences of regulators being grossly under-resourced, under-skilled and disconnected from others when overseeing high-risk industries. In a small country, like New Zealand, that need for sufficient capability and capacity may require comparatively high levels of investment relative to other similar regulators in larger economies, or through different forms of association with other jurisdictions.

43. Can you provide examples of where risk-based approaches have been used well? What are the critical pre-conditions for effective implementation of risk-based approaches to compliance monitoring and enforcement in New Zealand?

The Authority has implemented a combined Assurance, Quality and Risk framework which provide us with the tools to obtain a forward-looking perspective on our risk landscape. The framework (alongside) also gives us a view on the design and effectiveness of our internal control and quality management system. We use the framework to ensure that risk management, quality systems and assurance drives efficiencies and resource allocation.
Our assurance activities are based on the integrated Assurance, Quality and Risk framework, with our annual assurance plans divided into four areas:

- compliance and audit provide a retrospective assurance view
- quality, operations and change provide assurance around contemporary issues and major projects
- strategic and corporate risks providing a forward looking assurance view, as do emerging issues.

CAA has a quality management framework based on the ISO 9001:2008 standard at the corporate level. This provides context and linkage with the risk and assurance management policies, processes, structures, reporting and data capture systems. We are following a three-year plan to progressively enhance the capability and maturity of the quality management system.

**Risk management**

CAA’s risk management programme is based on AS/NZS ISO 31000:2009 Risk Management Standard. As part of the risk management programme, we regularly assess strategic and corporate risks using the categories “Financial”, “Political”, “Stakeholder Engagement”, and “Operational”.

We assess the likelihood and consequence of strategic and operational risks, and reviews mitigations and level of residual risk. We mitigate risks to ensure that residual risks will be “As low as reasonably practicable” (ALARP principle) and mitigating controls will be able to be assessed as “Satisfactory” or “Strong”.

For a risk to be “ALARP” it must be possible to demonstrate that the cost involved in further reducing the risk would be disproportionate to the benefit gained. This recognises the fact that attempting to reduce a risk to zero could take infinite resources.

**CAA’s Role As A Risk-Based Regulator: The Civil Aviation ‘Life-Cycle’ Approach**

The Civil Aviation Act sets out a ‘life-cycle’ approach to regulating civil aviation within a closed system, the boundaries of which are determined by the Civil Aviation Act and Rules.

The life-cycle approach (see alongside) has three stages: entry, operation or participation, and exit. Under this approach, once participants have entered the regulated system, they must take responsibility for ensuring their operations meet these minimum standards. Failure to do so renders the participant liable for
regulatory action which may include penalties under the Act, and removal from the system.

The life-cycle approach is explained more fully in a publication available on our website: *Civil Aviation in New Zealand*¹⁴.

The **potential benefits of risk-based regulation** are variously described as¹⁵:

- A more pro-active approach to identifying and managing risks
- Regulatory decisions which are better informed by rational analysis maximise the efficiency of the regulator’s resources
- Greater clarity of regulatory objectives—helping promote more integrated compliance strategies
- A strong basis for assessing regulators’ accountability for performance.

**Assessing risk**

By taking a risk-based approach to regulation, we can target our resources more effectively. Targeting allows us to better mitigate risks in the civil aviation system and to apply the most appropriate intervention.

A risk-based approach means that, when we assess risk, we consider factors such as attitudes and behaviours, skills, business systems and resources. We base our assessment on information we gather from audits, investigations and incidents reporting. A key factor we consider when we allocate our regulatory resource is the consequence of a safety failure.

For example, a failure in passenger-carrying operations is unlikely compared to a failure in other aviation activities. However, the consequences of a failure are likely to be significant. We therefore place a high emphasis on regulatory activities for passenger-carrying operations.

We are implementing Safety Management Systems (SMS) requirements for certificated organisations in many parts of the civil aviation system. An SMS will require an organisation to develop and implement a more systematic approach to managing risks.

We are also developing risk profiles for the different aviation sectors, such agricultural aviation. The two initiatives—SMS and risk profiles—will enable us to better identify specific risk factors and apply more targeted and proactive responses.

**Aviation security risk**

As well as being essential to our strategic approach, identifying and managing risk is a key part of Aviation Security Services activity. The Aviation Security Service has developed and operates a risk management framework based on ISO principles. This framework takes into account changes in the external business environment that may impact on the Aviation Security Service.

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¹⁴ [http://www.caa.govt.nz/about_caa/Civil_Aviation_in_NZ/CAA-profile.html](http://www.caa.govt.nz/about_caa/Civil_Aviation_in_NZ/CAA-profile.html)

¹⁵ OECD-Israel Workshop; *Improving the implementation and enforcement of regulation*; Dr David Cousins, AM Professorial Fellow; 30 June 2011; Nicholas A. Sabatini, Associate Administrator for Aviation Safety, FAA—various references
**Risk Profiling**

The CAA risk profile is designed to highlight aspects of an operation that may involve increased risks to safe operation. It requires the CAA to assess a client’s organisational culture and internal functioning in many areas and rate performance against a standard scale.

When the ratings in each of the assessed areas are combined, a comparative risk profile can be derived, where the risk profile rating of an individual participant can be compared to the ratings of all other participants with the same document. Ratings are confidential between each participant and the CAA.

Refer to our response to question 60 for an indicative list of risk profile components.

**Critical pre-conditions for effective implementation of risk-based approaches**

The CAA has been encouraging organisations to adopt Safety Management Systems (SMS) requirements proactively. An SMS is a formal risk management system for organisations to improve safety. It integrates a range of safety management tools, including senior management commitment, hazard identification, risk management, safety reporting, occurrence investigation, remedial actions and education. An effective SMS generates an enhanced safety culture and provides the necessary management environment for an organisation to readily identify and resolve systemic safety problems. Every SMS must address the same key elements, but the size and scope differ in relation to the complexity of the organisation applying it.

SMS is now a cornerstone of the regulatory philosophy of the International Civil Aviation Organization (ICAO) which is strongly promoting safety management systems as the basis for certification of various types of operation. The CAA is consulting on requiring risk management systems like SMS as the philosophy fits well with our existing approach to safety regulation, and is better suited to achieving our safety performance goals than existing quality assurance and exposition requirements. The entire system would also be safest if all operators are working from the same approach to safety. While the current quality assurance approach provides an effective management tool, SMS develops safety activity further by focussing more on hazard identification and risk management. Properly implemented, SMS provide a comprehensive and integrated framework for organisations to manage their safety responsibilities appropriately.

The CAA’s SMS rules would:

- Require certificated organisations to establish, implement and maintain an SMS appropriate to the size and scope of their organisations
- Be consistent with the ICAO SMS requirements set out in Annex 19 and associated manuals
- Be performance based in that they will stipulate what the SMS has to achieve, rather than prescribing in detail what has to be done
- Build on existing exposition / internal quality assurance rules by providing a framework for all regulatory compliance requirements to be integrated into the SMS; especially
where those requirements are addressed in other CARs not directly linked at present to
the exposition or internal quality assurance rules (e.g. reporting of occurrences in
accordance with Rule Part 12).

44. What are the challenges to adopting risk-based approaches in New Zealand?

Having good ability to recognise risk, sector confidence and trust, sector knowledge,
intelligence systems, and good training for staff are all factors in the adoption of risk-based
approaches in New Zealand. Particular challenges relate to the speed and competence with
which smaller operators and sole operators will implement SMS.

Many larger aviation operators in New Zealand have already adopted SMS. Others are well on
the way. CAA education and information programmes will focus on smaller operators,
primarily in the General Aviation sector. In all cases, the CAA will give clear directions as to the
performance outcomes an SMS should aim to achieve. Advisory Circulars and other guidance
material have been and will continue to be developed explaining how to establish, implement
and maintain an SMS.

Another area relating to the management of risk is the extent to which private organisations
carry out a regulatory function. Some agencies do enable private organisations to carry out
limited regulatory functions under delegation. For example, in the case of the CAA, the
Director has issued delegations to many organisations to approve certification and licensing
(under strict conditions). These delegations include (for example) empowering organisations
to:

- Issue, grant and renew Hang Gliding and Paragliding certificates
- Issue Aviation Event Authorisations
- Issue, grant and renew Parachutist Certificates
- Issue, grant and renew Microlight Pilot Certificates and Microlight Pilot Instructor
  Certificates
- Issue, grant and renew Glider Pilot Certificates and Glider Pilot Instructor Certificates

This requires surveillance oversight of the bodies authorised, by delegation, to carry out those
activities.

It is important to note, however, that there is no self-regulation by any sector of aviation, and
particularly not by any airline, large or small. There can only ever be one set of regulations,
and therefore by definition one regulator. Sports aviation, where the degree of risk is
understood by the participants who are fully aware of those risks, is allowed a degree of self-
administration. That is appropriate - but not self-regulation.

See our response to question 20.
45. Can you provide examples of where regulatory regimes require too much or too little consultation or engagement? What are the consequences?

The Parliamentary Counsel Office advises that “There is no formal legal requirement of consultation in New Zealand before delegated legislation is made. However, empowering provisions often contain requirements relating to consultation.

Consultation must be meaningful. A duty to consult requires that the person or body consulted is given sufficient opportunity to state their views "before the mind of the executive becomes unduly fixed".

In considering whether a consultation requirement has been satisfied, the following principles should be taken into account:

- consultation does not require agreement or even negotiations towards agreement;
- more than mere notification is required; and
- for consultation to be meaningful, sufficient information must be made available to enable the other party to be adequately informed so as to be able to make intelligent and useful responses.  

The Civil Aviation Act 1990 requires consultation as part of Rule setting, and in relation to the setting of fees, charges and levies.

Transparency implies the openness of the regulatory process and decisions to stakeholders. If different interests from government, industry and customer groups have the right to access the regulatory process, they can participate and provide input before decisions are reached. This is the case in CAA Rule Making and fee-setting where extensive consultation occurs, in line with the Civil Aviation Act and the regulatory change process that is followed.

Such public participation can be helpful only if the participating public is able to understand technical background of the issues at hand. Industry representatives will likely have more information about the issues than, say, the consumer groups. This situation of asymmetric information may be abused by some of those consulted if the consultation process is not handled properly.

On the other hand, for consumer groups to contribute constructively they need to do more than simply to complain about prices or service quality; they need to base their arguments on economic, technological and business principles of the industry. Otherwise, their participation is likely to create delays, induce politicians to get involved, and undermine the success of the consultation process.

16 Parliamentary Counsel Office at: http://www.pco.parliament.govt.nz/lac-Chapter-10a
Any requirements in legislation or regulation regarding consultation should specify that consultation must occur, but not be specific about how the consultation must be carried out, or whom consultation must involve. This is because stakeholders may change over time, and consultation methodologies move on from those that may be provided for in legislation or guidance.

A particular issue for the CAA is the dichotomy it faces in consulting its stakeholders. There is a significant difference between consulting the big (almost monopoly players) versus, say, the recreational (i.e., the non-commercial flier), versus the small (often under-capitalised) entities in the sector. The ability to reach out to these various groups, using language that each understands, and then develop and apply a common set of rules ensures a complicated consultation and regulatory change process.

In addition, there is potential in a high-risk high-reliability industry that has had very few safety failures (such as aviation) of failure to maintain regulator relevance and public understanding of the sector and its risks. A consequence of this is loss of interest in the activities of the regulator, and progressive disinvestment and loss of priority for the agency. (See the discussion on the Pike River Commission Report in our answer to question 42.)

As Bartsch\(^\text{17}\) notes “While there is no doubt that the process of determining risk acceptability is commonplace and considered important in modern society, it is nevertheless a concept and a process which is not generally freely discussed. A suggested reason for this apparent dichotomy relates to the fact that the underlying premise involved in such a determination (i.e. risk assessment) ultimately relates to putting a price on human life. This is not a premise that is easily accepted and subsequently it is often ignored or pushed aside. To further complicate the matter there is a general misconception that, with respect to aviation, any risk is simply unacceptable. Apart from being naive such a view is counter-productive to gaining an understanding of the processes involved in determining risk acceptability.

The later confusion exists because of the divergence of thought between that which one would like (zero risk) and that which exists (level of acceptable risk).

“The acceptable level of risk is not the ideal risk. Ideally, the risks should be zero. The acceptable level is a level that is ‘good enough’, where ‘good enough’ means you think that the advantages of increased safety are not worth the costs of reducing risk by restricting or otherwise altering the activity.” (Facts and Fears: Understanding Perceived Risk)

It is commonly accepted that a thing is safe if its risks are judged to be acceptable. Irrespective of the basis of such judgment, (whether a cost/benefit analysis, informed opinion or gut instinct) the acceptability of risk is determined. Essentially it is a matter of what price (whether determined objectively or subjectively) the decision maker puts on safety. In fact the whole concept of safety is based on affordability. It is the point at which we consider certain risks to be acceptable, that is where we consider the resources allocated to risk countermeasures to have reached a reasonable limit.”

Introducing new regulations, or changes to existing regulations, in the absence of safety failure, in order to be precautionary and continue that level of performance becomes increasingly difficult. It is particularly so if the “test” for regulations, or changes to existing regulations, is dependent on adducing evidence of failure to demonstrate or quantify costs/benefits. Such a difficulty would be multiplied in the case of a multi-focus regulator.

Consultation with the public and ‘end-users’ of the aviation system becomes very important in this circumstance.

46. **What are the characteristics that make some regulations more suited to prescriptive consultation requirements than others?**

Any requirements in legislation or regulation regarding consultation should specify that consultation should occur, but not be specific about how the consultation must be carried out, or whom consultation must involve. This is because stakeholders may change over time, and consultation methodologies move on from those that may be provided for in legislation or guidance.

Greater prescription of consultation requirements may be required where the consultation is in regard to:

- The degree of coercion that might arise from the instrument;
- The potential for a participant’s exclusion from the regulated system; and
- The potential for high or increasing compliance costs.
- The potential for high impact penalties, fines, or incarceration;

Greater consultation might also be required where the industry or sector being regulated is not mature – that is, the less mature or capable the industry sector, the more prescription in regard to compliance, and hence consultation in regard to the degree of that prescription, might be necessary.

47. **What forms of engagement are appropriate for different types of regulatory regime? When do formal advisory boards work or not work well?**

The relationship a regulator has with its regulated sector is very important, but is only one of a number of relationships with key stakeholders that must be considered. These relationships are dynamic, shifting and developing in terms of importance and form.

The regulator must consider the impact of its compliance decisions on all of its stakeholders, not just the regulated sector it oversees. “For example, regulatory/compliance decisions must

18 For example, about 96% of the travelling NZ public travel on fewer than 2% of operators while the poorest safety performance comes from the other 98% or so of operators. Yet the most unacceptable safety failure would occur with the 2%. CAA’s regulatory focus has to be on that part of the aviation sector with the best performance, simply because to have a failure there is unacceptable. The national tolerance for a failure in say the agricultural sector is higher.
contribute towards **public value**, while being fair to the regulated sector and maintaining the confidence of Ministers in the ability of the compliance agency to perform its role”\(^\text{19}\).

Regardless of regime, a regulator needs to be able to operate in a series of modes ranging from supporting to working with, to doing to. No one mode of engagement will suffice to be an effective regulator.

CAA has a well-developed stakeholder programme that involves Vector (a bi-monthly publication that goes to over 16,000 people), Booklets, other publications, Outreach programmes, training programmes, Aviation Information Circulars, the Stakeholder Reference Group, various Industry consultation processes, and Email awareness programmes.

Relationships with the Ministry of Transport and Minister’s office are carefully managed. In addition, the Director and senior staff members sometimes attend board meetings of various industry associations.

This programme has been developed to meet the needs of stakeholders and to ensure that the CAA can both gather and disseminate information effectively and efficiently.

Part of our role is to give members of the public, and other transport users, confidence that the minimum standards of civil aviation safety and security are being met. We work closely with a range of stakeholders, including:

- the Ministry of Transport, for policy development; the Ministry is responsible for leading development of strategic transport policy, and monitoring the performance of the sector’s Crown Entities;
- other transport agencies in the public sector, for delivery of shared services;
- other government agencies, such as the New Zealand Police, the Transport Accident Investigation Commission (TAIC) and Maritime New Zealand, for delivery of safety and security functions;
- the ICAO and other international regulatory and non-regulatory organisations;
- aviation industry groups, with whom we regularly engage and consult on aviation issues and risks, and to share best practice;
- approved service delivery providers who have been granted a Director’s delegation to carry out our certification and licensing activities; and
- participants or aviation document holders who operate within the civil aviation system.

Stakeholder engagement is sufficiently important to our outcomes that we have made it a Strategic Priority.

The CAA also carries out a survey of passengers and airport users to test public perceptions regarding aviation security and other matters relating to the aviation sector.

\(^\text{19}\) March 2011, Achieving Compliance: A guide for Compliance Agencies in New Zealand, p129
Advisory boards

While the CAA does not have a formal standing advisory board as such, we are aware that an increasing number of organisations are appointing advisory boards to obtain expert advice on emerging technology or scientific advances, to gain insight into doing business in diverse global markets and/or to strengthen understanding on any number of topics, including technology, economics, demography, geopolitics, or the thinking of an individual government, to name a few.

An advisory board can add value by exposing the management (and the main board) to new thinking, thereby broadening horizons, improving understanding of the organisation’s markets, risks and future drivers of growth, challenging assumptions and guarding against groupthink. Advisors can directly benefit organisational performance.

To be effective, an advisory board needs a clear remit. An advisory board can support the board or the CEO by providing expert insight or contacts, but it must be clear where ultimate decision-making authority and collective responsibility lie. The advisory board must have an unambiguous mission and definition, with the structure, background and financial arrangements clear. The commitment must come from an appropriate point in the organisation.

• The CAA’s Aviation Community Advisory Group (ACAG)

ACAG is a representative industry body which has been formed to provide advice to the CAA, and to receive regular feedback from CAA and the aviation community on issues affecting aviation safety and the aviation operating environment. The functions of the ACAG include, but are not limited to, the following:

i. Identify Issues to be Addressed: ACAG’s primary function is to identify issues within the aviation system that may require consideration, analysis, and action by the CAA where appropriate. Identification of the issues will include a clear explanation of the problem.

ii. Provide Advice as to Issue Priorities: Review the full issue assessment list compiled by the CAA monthly, and provide a representative industry view of the prioritisation of the issues concerned, with reasons for the priority.

iii. Provide Technical Expertise during Issue Assessment Process: Identify relevant industry representatives who can be called on by the lead policy advisor to provide technical expertise to add value to the issue assessment process.

iv. Provide Advice on Implementation of Non-Regulatory Interventions: Provide advice on the implementation of non-regulatory solutions which require industry action and/or resource.

v. Provide Advice on Regulatory (Rules) Interventions: If requested to do so, identify suitable experts from the aviation community to participate in project working groups that provide technical advice and feedback during the Ministry of Transport’s Rules Development process.
Note that the ACAG does not have a role in the formal consultation process (arising from a Notice of Proposed Rulemaking). At that stage members of ACAG will be free to make individual submissions on proposed rulemaking unencumbered by their ACAG affiliation.

The ACAG membership is broadly representative of the aviation community to ensure that the CAA has access to the appropriate advice. The ACAG comprises of one member nominated by each of the following nine (9) permanent member organisations as follows:

- Air New Zealand
- Airways Corporation of New Zealand
- Aviation Industry Association
- New Zealand Air Line Pilots Association
- New Zealand Aviation Federation
- Flying New Zealand
- Society Licensed Aircraft Engineers and Technologists
- NZ Airports Association
- Aircraft Owners and Pilots Association

In addition to the above three (3) elected members may be appointed to ACAG. The following organisations will be invited to attend the ACAG meetings in an observational role:

- New Zealand Trade and Enterprise
- Ministry of Transport

The CAA establishes time limited consultative groups from time to time to assist with the development of policy and Rule making, and to provide valuable sector input into specific activities. An example of this is the Sector Reference Group, established to assist with the recent CAA Funding Review.

- **Funding Review Sector Reference Group**

At the time the CAA carried out a major review of the funding of its regulatory oversight activities, a special Sector Reference Group (SRG) was established. This group was largely representative of the wider aviation community and served as a link between the Authority and the aviation community during the funding review and the Value-for-Money (VfM) reviews. It was seen as important that the SRG was representative of the aviation community so that the views of one particular constituency did not predominate.

The SRG’s principal purposes were to be available to the funding and VfM reviews to provide input and information relating to the questions to be addressed by the reviews; and to be available to assist the Authority as it considered appropriate when considering the reports of the two reviews.

Membership of the SRG included nominated representatives from the following organisations/sectors:
- The Air New Zealand Group
- The Airways Corporation
- A representative nominated by the Board of Airline Representatives NZ
- A representative nominated by the Aviation Industry Association of NZ
- A representative nominated by the New Zealand Airports Association
- A representative from the sport and recreation sector
- Any other representative of the aviation community as may be agreed by the CAA.

As the CAA is soon to embark upon another Triennial Funding Review it is likely that a similar body will be formed.
48. What elements of a regulatory regime’s design have the biggest influence on culture? Why?

As set out in our response to question 21, regulators which move their approach to a risk-based paradigm are more likely to succeed. In designing, applying, and developing regulatory systems, regulators should be attentive and responsive to five key factors:

I. the behaviour, attitudes, and cultures of regulatory actors;
II. the institutional setting of the regulatory regime;
III. the different logics of regulatory tools and strategies (and how these interact);
IV. the regulatory regime’s own performance over time; and
V. changes in each of these elements.

So, without prescribing a specific institutional form, endurance is more dependent upon:

- **Adapting to change**: if regulators cannot adapt to change, they will apply yesterday’s controls to today’s problems and underperformance will be inevitable.

- **Responsiveness**: it is best to regulate in a way that is responsive to regulated firms’ behaviour, attitude, and culture; institutional environments; interactions of controls; regulatory performance; and change.

- **Variety**: the challenges of regulation vary across the different regulatory tasks and that astute regulators will deal with the variety of those challenges.

This means that the regulator must (as we set out in our response to question 39) be vigilant, nimble, and skilful. Professional regulatory capabilities must be developed as set out in our response to question 34.

49. How best can the challenges of working in partnership with Māori be met by regulatory agencies? What models, methods, and approaches are most successful?

No response

50. How well do regulatory agencies ensure consistency of approach between or amongst regulatory staff, so that individual variations are minimised?

Consistency is generally deemed to be a key principle of good regulation. It is also often demanded by regulated organisations and participants. Although no general definition for regulatory consistency exists, it usually means a requirement for equitable treatment; different organisations under identical conditions should expect to be treated in the same way.
The approach followed in legislation often seems to rely on ensuring that particular regulatory parameters are the same. Without detailed knowledge of the regulatory process, an outside observer may be tempted to equate consistency of specific regulatory parameters with regulatory consistency. This view, however, can be misleading as it ignores the discretionary nature of the choice of the regulatory parameters by the regulator.

To achieve consistency in decision making, statutory and other, most organisations tend to rely on some or most of the following:

- Clear understanding of the organisation’s outcomes, strategy and policy
- Good leadership & management
- Sound, up-to-date, well-documented processes
- Risk worksheets
- Case assessment worksheets
- Common training in various systems, procedures and processes such as risk management and decision making
- Internal audit procedures
- Regular programmed reviews of decisions/work
- Case management systems
- Good internal communications through newsletters, staff meetings, etc.
- Good documentation/templates/checklists, etc.
- Decision trees
- Good policies that are readily accessible
- Removal of ‘organisational silos’
- Internal review of regulatory decisions (self-audit)
- Reports to the Board of regulatory decisions

In the CAA’s case most of the tools referred to in the table above are utilised. However, it is in the area of behavioural change where the greatest challenge lies. Because CAA staff members are recruited from a wide variety of backgrounds, usually as well-experienced professionals, they bring with them an acculturation to previous organisations and roles. It is a big behavioural step to move from, for example, a senior military role with an aeronautical engineering background to a regulatory compliance setting. Similarly, a move from within the industry, having been subject to regulatory oversight, to the regulator and providing regulatory oversight can be very challenging, particularly when bonds between colleagues and/or friendship, or past organisational loyalty, may be strained by the change in role and relationship.

Some staff members cope with this change, others have difficulty. Managing the change frequently becomes a process of utilising the tools referred to above and formal coaching (if not performance management) in the behaviours required of regulatory compliance staff members.

Refer also to our response to question 25.
51. Can you provide examples where the culture or attitude of the regulator has contributed to good or poor regulatory outcomes? How?

The Civil Aviation Authority has had past successes in influencing international policy development in such international aviation forums such as the International Civil Aviation Organisation. The Authority is well able to apply New Zealand’s influence and ability to protect and achieve outcomes that support our economic interests within global aviation.

The Authority’s move to a more risk based approach led to the decisions made regarding the management of volcanic ash events recently, resulting in a positive outcome for New Zealand. Work done by the Authority on the International Civil Aviation Organization Airways Volcano Watch operations system — the proper operation of the Airways Volcano Watch operations system in Australia and New Zealand, following the eruption of the South American Puyehue Cordon Caulle volcano — facilitated a successful risk based response from airlines, with most Air New Zealand operations completed. This is in stark contrast to the European response to the 2010 Eyjafjallajökull eruptions in Iceland where European aviation systems did not allow the same risk-based approach, with enormous commercial and economic consequences in Europe and affecting other areas of the globe.

52. Can you provide examples where the culture within a regulator supports or inhibits staff in making difficult decisions, particularly where those decisions may be unwelcome to government, regulated parties or the general public? How?

A distinction should be made between the different levels of political influence operating at different levels of policy and regulatory decision making. At the macro level, the Parliament is regarded as representative of the public or the electorate. Hence, politics is a means by which society decides which regulatory direction is ethically acceptable, socially preferable, economically beneficial and scientifically reliable. From the perspective of representative democracy, therefore, it is desirable for politics to determine the overall legal frameworks within which regulatory oversight occurs.

But at the micro level, where decisions are made which apply those legal frameworks to specific cases, it is not desirable for politics to exert influence on individual cases.

It is for that reason that the Civil Aviation Act reserves the governance functions of the CAA to its Board, and others to the Director (section 72 I 4) “in performing or exercising any functions or powers in relation to—

(a) the granting of aviation documents; or

(aa) the issue, suspension, or revocation of medical certificates; or

(b) the suspension of aviation documents; or

(c) the revocation of aviation documents; or

(d) the granting of exemptions; or

(e) the enforcement of the provisions of this Act or any other Act, or of rules or regulations made under any such Act,—
in respect of any particular case, the Director shall act independently and shall not be responsible to the Minister or the Authority for the performance or exercise of such functions or powers.”

It is clear that such decisions are for the Director or his delegate, to make. To achieve quality decisions it is necessary for the CAA to ensure that it has:

- A good understanding of the role of ‘the regulator’, in addition to technical expertise;
- Robust and well understood regulatory decision making processes, including an understanding of precedent, and role clarity for all involved in the regulatory decision process;
- A Regulatory Decision Review process;
- Understanding of stakeholder interests, Government policy and expectations;
- Understanding of how regulatory action broadly impacts upon business and how different regulatory actions can impact upon a single business or group of businesses;
- Good training for staff in their respective roles and responsibilities;
- Connectedness with the aviation sector; and
- An atmosphere of trust and confidence between the key regulatory parties involved (the Minister, the Ministry of Transport, the Board, and the Director).

The CAA is moving from being a technocratic organisation to being much more a risk-focused regulator. That has required a culture change internally which, while retaining the strengths of the technocratic approach, utilises a much more risk-based approach to its role. This requires the CAA to focus on which risks are to be targeted rather than which technical problem is to be addressed. The change in operating mode also requires questions of internal resourcing and priority setting to be addressed.

Refer to our response to question 25, and Appendix 1.

53. Can you provide examples where a regulator places too much value on managing risks to itself, relative to other priorities (such as the regulatory objective, or customer service)? What are the consequences?

No response.
54. Can you provide examples of regulators whose approach to their business is largely shaped by their reliance on a particular profession? How might that approach be different if it drew on a wider range of professions?

The CAA has a wide range of professions represented among its staff members, including:

- Pilots
- Engineers (mechanical, electronic, aeronautical, etc.)
- Doctors and other medical professionals
- Policy analysts
- Statistical analysts
- Economists
- Legal
- Financial Management
- Psychologists
- Investigatory specialists
- Human Resources specialists
- Project Managers
55. Can you provide examples of how accountability or transparency arrangements improve or undermine the effectiveness of a regulatory regime?

We operate to a consistently applied Regulatory Operating Model, which is founded in the Civil Aviation Act. This model outlines the principles that underpin our regulatory approach. It applies to all activities in the civil aviation system, including: certification and licensing, surveillance, safety analysis, promotion, education, investigation and enforcement activity.

As the model shows we seek to achieve compliance with Civil Aviation Rules through voluntary compliance, and disclosure of incidents. This is predicated upon the following:

- It is more worthwhile to reduce accidents by learning from incidents (being reported openly and communicated to the regulator) than by punishing people for making mistakes, to stop them from making mistakes in the future;
- The threat of discipline does not necessarily increase a person’s awareness of risks or increase one’s interest in assessing the risks, and if it did would it that awareness outweigh the learning achieved through punishment;
- By providing safety information and knowledge, people tend more to be interested in assessing the risks, outweighing the learning achieved through punishment;

By gathering, analysing and sharing information and knowledge arising from disclosure of events, better learning about system performance and participant behaviour can be obtained.

However, the learning must be made transparent in such a way that participants are not inhibited from disclosure - total transparency may inhibit self-reporting of events by participants.

One key to the successful implementation of safety regulation is to attain a “just culture” reporting environment within aviation organisations, regulators and investigation authorities.
This effective reporting culture depends on how those organisations handle blame and punishment.

Only a very small proportion of human actions that are unsafe are deliberate (e.g. criminal activity, substance abuse, use of controlled substances, reckless noncompliance, sabotage, etc.) and as such deserve sanctions of appropriate severity. A blanket amnesty on all unsafe acts would lack credibility in the eyes of participants and end-users and could be seen to oppose natural justice. A “no-blame” culture per se is therefore neither feasible nor desirable.

What is needed is what is sometimes referred to as a “just culture”, an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety-related information - but in which they are also abundantly clear about where the line must be drawn between acceptable and unacceptable behaviour.

We need to learn from accidents and incidents through safety investigation so as to take appropriate action to prevent the repetition of such events. In addition, it is important that even apparently minor occurrences are investigated, in order to prevent catalysts for major accidents. Safety analysis and investigation is a necessary and effective means of improving safety, by learning the appropriate lessons from safety occurrences and adopting preventative actions. It is therefore important that an environment exists where occurrences are reported the necessary processes are in place for investigation and for the development of necessary preventative actions such as re-training, improved supervision, etc.

56. **What types of accountability or transparency arrangements are appropriate for different types of regulatory regimes?**

Transparency implies the openness of the regulatory process and decisions to stakeholders. If different interests from government, industry and customer groups have the right to access the regulatory process, they can participate and provide input before decisions are reached. It is not possible to determine one singular set of transparency or accountability arrangements for the range of regulatory regimes that are in place (as indicated in our response to question 5). Differing institutional forms require differing accountability regimes.

57. **Are the problems that the Commission identified in the assessment of local government regulatory performance also evident in the assessment of central government regulatory performance? If not, how do the problems differ for central government?**

The Productivity Commission identified a series of issues faced by Local Government in May 2013, including:

- Design of regulation
- Implementation and administration
- Generic system issues
- Performance assessment
- Local regulation and Māori
- Poor central and local government interaction
While the issues are similar, aviation regulation occurs within a closed system. The aviation sector is very much viewed as a system. There is a sophisticated performance reporting approach in place and that is improving with better data analysis and understanding of sector risk. Risk profiles at both individual participant and organisation level assist with those assessments.

There is improving understanding of the ‘value added’ by the regulator, and the linkages between regulatory action and the safety outcomes we seek to achieve. Performance information is used to drive performance improvement both by sectors within the aviation system and our organisation.

58. Can you provide examples of where performance assessment of regulatory regimes is working well, or needs improvement?

On 4 March 2013, Cabinet agreed to an initial set of expectations for regulatory stewardship (the regulatory expectations) [CAB Min (13) 6/2B refers]. The regulatory expectations outline at a high level how departments should be designing and implementing regulatory regimes and their stewardship responsibilities in administering those regimes, such as undertaking monitoring and review. The regulatory expectations create broader expectations on departments which apply throughout the full life-cycle of regulation. Central agencies will be monitoring and reporting progress towards the regulatory expectations over time.

The CAA’s accountability regime is, as with most Crown Entities founded in the Crown Entities Act and other arrangements entered into with the Minister’s office, the Ministry of Transport, and other monitoring agencies.

These monitoring and reporting requirements include, but are not limited to:

- **Weekly reports** to the Minister (cc to the Ministry of Transport);
- **Regular briefings** of the Minister and the Ministry of Transport on issues of importance;
- **Monthly Governance and Regulatory Decisions** reporting to the Board;
- **Quarterly governance reporting** to the Minister (cc to the Ministry of Transport);
- An **Aviation Safety Summary Report** is published on a quarterly basis;
- A **Strategic Directions** document is published periodically;
- A **Statement of Intent** is published annually;
- An **Annual Report** is published annually;
- **Ad-hoc Reports** by the Auditor General and others on aspects of the CAA’s operations; and
- **Monitoring by the ICAO** of the CAA’s performance in defined areas.

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The majority of these documents are available on the CAA’s public website, enabling public access to them.

59. When are feedback loops being used well to improve the performance of New Zealand regulatory regimes? When aren’t they?

Prescriptive regulation seeks bureaucratic accountability through adherence to prescribed rules while performance-based regulation seeks accountability for results.

The CAA has a number of feedback loops in place to accept and seek feedback from its stakeholders. These were set out in our response to question 58 above. In addition:

- Feedback is sought from participants on interactions with the CAAs staff members and systems.
- A biennial survey seeks input from members of the public and users of aviation services on their perceptions of aviation safety and security.

As the aviation regulatory approach moves closer towards a risk-based model from a more prescriptive, technically based model, the monitoring of system performance will become more complex requiring increasing sophistication in the design and implementation of monitoring and feedback mechanisms.

The case of “leaky buildings” in New Zealand illustrated very clearly what can happen when accountability structures are deficient. Flexibility was achieved without sufficient accountability for the performance for the particular building systems in question. In that case the configuration of the accountability method to achieve quality control of the regulatory system did not provide adequately for:

- Monitoring and feedback loops to check the on-going achievement of performance standards for innovative solutions designed into the system.
- A role for aggregating and analysing the results of feedback.

60. Can you give examples of indicators or proxies that are effective as early warning signs of regulatory noncompliance or failure?

The CAA has a sophisticated Risk Profiling system designed around the specific requirements of the different rule parts. An assessment is carried out, in relation to an organisation in regard to each component of the profile.

For example, the risk profile for a Part 125 Air Operator Medium Aeroplanes contains assessment of the following components:

- Associations with relevant service providers
- Attitude to safety and compliance by management
- Attitude towards risk taking
- Organisation’s attitude to the regulator
- Challenges to rules
- Financial situation affects safety
- Safety, risk and quality management systems
- Fatigue and alertness management (Day and night crew rosters)
• Demanding flight schedules or timetables
• Company experience e.g. New start-up company vs. experienced participant
• Change in company organisation, scope or size
• Staff turnover especially Chief Pilots/supervising staff
• Training programme
• Capability of senior persons
• Part time senior persons
• Staff morale
• Industrial relations
• Condition of facilities and equipment
• Tools/Equipment/Materials/Aircraft
• Multiplicity of aircraft types
• Aircraft capability to operate in extreme environments
• Maintenance cover
• Small operations (fleet size)
• Safety trends
• History of document action, including consideration of action (conditions, suspensions)
• Non-compliance/non-conformance
• Management structure
• Types of operation
• Level of activity

This provides the CAA with an indication as to whether non-compliance may be occurring.

Other indicators might include

• User complaints to the regulator;
• Decreasing public confidence;
• Leaks/Whistleblowers from within the organisation;
• Media coverage;

The CAA's primary focus is delivering aviation safety to the New Zealand public, and does this by:

• setting aviation standards and rules;
• licensing aerodromes, pilots and aviation engineers;
• certifying aircraft and operators;
• carrying out safety surveillance;
• enforcing safety standards and rules;
• providing regulatory oversight of the national airways system, air traffic services and aviation security services; and
• actively assisting the aviation industry to maintain high safety levels through education, training advice and consultation.

In an aviation safety context, regulatory failure means that an event (an accident or a hazard):

• has occurred in relation to a regulated organisation, person or others, which indicated a **significant failure** to secure appropriate aviation safety, or had, or could have had, a **significant adverse effect** on aviation safety, or
• might not have occurred or the adverse effect might have been reduced but for a **serious failure** in the aviation safety system or the operation of that system.

Regulatory failure in this situation is generally recognised after the event.

There are a number of contemporary models and theories that have been developed that attempt to explain the cause of ‘accidents’ and how ‘hazards’ might best be managed. Although there is a divergence of thought on the subject most theorists agree that rarely is the cause of an accident attributable to a single cause. Accidents that can be attributed to a breakdown of a system or process within a system are termed **systemic**. To avoid further such accidents the system needs to be modified so as to minimise or eliminate the likelihood of similar such occurrences.

One of the principal exponents of the system approach is Professor James Reason of the University of Manchester. The international aviation community’s contemporary approach to safety philosophy and practice has been greatly influenced by the work of Reason and his colleagues. Reason’s **accident causation model** has been supported by ICAO and recommended for investigating the role of management policies and procedures in aircraft accidents and incidents.

Professor Reason makes the point that like many other high-hazard, low-risk systems, modern aircraft have acquired such a high degree of technical (e.g. redundancy) and procedural (e.g. standard operating procedures) protection that they are generally not vulnerable to single failures, whether human or mechanical. Reason notes that such systems are much more likely to fall prey to an **organisational accident** - that is, a situation in which **latent conditions**, arising mainly in the managerial and organisational spheres, combine adversely with local triggering events (weather, location, etc.) and with the **active failures** of individuals at the “sharp end” (errors and procedural violations).

The CAA utilises risk assessment techniques through audits and inspections and risk profiling to assess the extent to which an organisation might be tending towards organisational non-compliance, conditions in which an event might occur, in an effort to pre-empt such an event.

**61. Can you provide examples of regulatory regimes with effective processes for formally or informally raising concerns about potential regulatory failures? What examples**

The CAA has formal Rules regarding the notification of aviation accidents and incidents. Rule Part 12 prescribes rules for the:

• notification, investigation, and reporting of accidents and incidents
• preservation of aircraft, aircraft contents, and aircraft records following an accident or serious accident
• reporting of aircraft operating and statistical data

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The CAA also uses an Aviation Related Concern (ARC) process for ‘informal’ advice of events of interest or concern to the CAA.

ARC’s are a means of collecting information that may pertain or relate to an individual event involving aircraft or some other aspect of aviation that is not reported under the Civil Aviation Rule (CAR) Part 12 reporting requirements. Put simply, ARC’s are a “catch all” mechanism. ARC’s have no basis in law or in Civil Aviation Rules. ARC’s can include:

- complaints about an aviation activity from members of the public, including issues such as low flying, noise, and spray drift from agricultural aviation activities; and

- complaints from civil aviation participants about the behaviours or conduct of other participants that are not otherwise reported under CAR Part 12 requirements.

ARC’s are a potentially rich source of information for the CAA. ARCs are notified through:

### Accidents
To report an accident call: **0508 ACCIDENT (0508 222 433)** 24-hour, 7-day, toll-free.

Send accident report forms to: ca005@caa.govt.nz

**Report Occurrences Online**

### Safety Concerns
To report other safety or security concerns call: **0508 4SAFETY (0508 472 338)** available office hours (voicemail after hours).

Report safety or security concerns by email: isi@caa.govt.nz

### Complaint
Complaints or allegations of suspected offences should be made in writing to:

Attention, Administrator Law Enforcement
Civil Aviation Authority of New Zealand
PO Box 3555
Wellington 6140

Fax: +64 4 569 2024

An initial analysis of each ARC is conducted by the manager with regulatory oversight responsibilities in conjunction with the ARC investigator. In considering the potential responses to the ARC, and bearing in mind the CAA’s regulatory operating model, the analysis will determine a suitable response based on the following factors:

- Seriousness of the safety concern and the alleged offence(s) committed
- The wider relevance of the event, including serious public concern
- Compliance record of the entity under investigation
• The level of risk
• Behaviour of participant
• The motivation and/or reliability of the person reporting the safety concern
• Public interest factors.

A decision will be made about whether a formal investigation will be undertaken.

At the conclusion of any ARC investigation, a Summary of Investigation will be produced. The ARC Summary of Investigation will be reviewed by the relevant manager with regulatory oversight responsibilities who may seek further input from technical specialists or request that additional investigative steps are conducted.

If the relevant operational manager believes enforcement action is required a referral is made in consultation with the Manager Regulatory Investigations. This request is also used as the closing action for the ARC investigation.

All ARC’s are recorded, investigated and acted upon as necessary. The themes and trends are also analysed to learn about shifts in the behaviour of participants, groups of participants or in the system itself. Learning about the expectations and concerns of other participants, communities and members of the public are also achieved. The notifier or complainant is advised of the action taken.
APPENDIX 1

The appendix contains material adapted from Ian Bartle & Peter Vass’ work Risk and the Regulatory State - A Better Regulation Perspective23.

A Technocratic Approach

Drawing on scientific ideas of risk, risk can be quantitatively identified and the quantitative effects of risk engineering can be assessed. Based on socially accepted value for life figures which are ‘willingness to pay’ or ‘willingness to accept’ assessments, acceptable levels of expenditure on risk mitigation can be calculated. Advocates of this recognise that there are inaccuracies in risk assessments and inevitably some judgements are required under uncertainty. However, they stress that this is not a reason to give up on ‘enlightened engineering’ but more reason for continuous and rigorous adherence to scientific principles of risk in policy making and risk management. Where they fail or are inadequate, better scientific and statistical techniques in risk assessment and better engineering of systems designed to reduce risk should be introduced. Where rational decision makers encounter significant obstacles from (uninformed) interest groups and public opinion better communication and education is required.

A Socio-Political Approach

This approach draws on criticisms of the technocratic approach and the recognition that risk is not simply a realist or physical phenomenon. As there are social, political and psychological aspects to risk, the decision making and management process requires engagement with the public and civil society as well as scientific analysis and engineering solutions. Trust, a crucial factor in risk management, requires engagement with the public as well as convincing scientific analysis. Models of risk also need to incorporate the varying ways in which subjective and objective risk interact, or more specifically how human behavioural responses to risk environments can affect the risk itself and the efficacy of the interventions aimed to mitigate risk.

These are summarised on the next page.

23 Adapted from: Ian Bartle & Peter Vass; Risk And The Regulatory State - A Better Regulation Perspective; Centre for the study of Regulated Industries (CRI) – University of Bath School of Management, pp61-62
### Notions of risk and risk decision making approaches

<table>
<thead>
<tr>
<th></th>
<th>‘Scientific-technocratic’</th>
<th>‘Socio-political’ (or ‘social constructivist’/ ‘socio-psychological’)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk and uncertainty</strong></td>
<td>• Risk and uncertainty are separate concepts;</td>
<td>• Risk and uncertainty blur and merge in most real situations;</td>
</tr>
<tr>
<td></td>
<td>• Risk can be derived from empirical data, quantified, probabilistic analysis undertaken;</td>
<td>• There are limits to the usefulness of quantitative techniques;</td>
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<td></td>
<td>• Risk defined as ‘statistical expectation value of an unwanted event which may or may not occur’;</td>
<td>• Qualitative judgements of risk and uncertainty are required;</td>
</tr>
<tr>
<td></td>
<td>• Uncertainty is when there is insufficient data and process knowledge to do probabilistic analysis.</td>
<td>• Judgements of significance of risk based on a variety of social, psychological and political factors as well as scientific and technical;</td>
</tr>
<tr>
<td><strong>Subjective and objective risk</strong></td>
<td>• Subjective and objective risks are separate;</td>
<td>• Subjective and objective risk interact;</td>
</tr>
<tr>
<td></td>
<td>• Objective risk exists ‘out there’ separate and distinct from that in people’s minds;</td>
<td>• Objective risk can be affected by subjective risk;</td>
</tr>
<tr>
<td></td>
<td>• Subjective or perceived risk is in people’s minds and can be very different from objective reality</td>
<td>• Subjective and perceived risk, even when different from objective risk, can be as valid an input into deciding how to respond to risk.</td>
</tr>
<tr>
<td><strong>Risk-based regulation and policy making</strong></td>
<td>• Key decisions made by governmental experts;</td>
<td>• Stress on qualitative techniques which recognise different kinds of understandings of risk and value placed on responding to it;</td>
</tr>
<tr>
<td></td>
<td>• Outside input limited mainly to scientific and technical experts;</td>
<td>• Democratic decision processes, i.e., made by Ministers with inclusion and dialogue with a wide range of differing actors;</td>
</tr>
<tr>
<td></td>
<td>• Stress on ‘utilitarian approach’ i.e., quantitative techniques for risk assessment and economic cost benefit analysis.</td>
<td>• Stress on a rights, societal concerns, and perceptions of risk.</td>
</tr>
<tr>
<td><strong>Areas of applicability</strong></td>
<td>• Low politicisation;</td>
<td>• High politicisation;</td>
</tr>
<tr>
<td></td>
<td>• High trust;</td>
<td>• Low trust;</td>
</tr>
<tr>
<td></td>
<td>• High consensus;</td>
<td>• Low consensus;</td>
</tr>
<tr>
<td></td>
<td>• Relevant knowledge from clearly bounded scientific and technical arenas.</td>
<td>• Relevant knowledge derives from many areas and crosses knowledge and professional boundaries.</td>
</tr>
</tbody>
</table>

### Integration of Technocratic and Socio-Political Methods

The critique of technocratic and quantitative methods appears to suggest that its polar opposite, the socio political approach should be adopted. However, as Hood\(^24\) (p225) notes “excessive reliance on dichotomies is dangerous”. Describing two different approaches separately has the problem of making them appear polar opposites, particularly when some of the key tenets of each are based on criticisms of the other. It is nevertheless possible to conceive of an approach or approaches which draw on elements of both models in a mix which is dependent on the context. No single method is likely to be appropriate in a highly context dependent environment. In conditions of low consensus, low trust, high politicisation and trans-scientific knowledge (i.e., no easy consensus amongst experts) elements of the socio-political model seem more appropriate (Hood, p226). Likewise in conditions of

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high trust and consensus, low politicisation and relevant knowledge limited to a small scientific area, a more technocratic approach has much to offer.

A sufficiently flexible framework to allow a more context specific and integrated approach will require, inter alia, “the explicit recognition that hazard is a sociotechnical problem”. A socio-technical system “stresses the close interdependence between people and their social arrangements and the technological hardware they make and use”. Risk decision making and management should also include an “articulation of the limits of models based on the attributes of function, form, grounding, specification and attributability” (Blockley\textsuperscript{25}, p38). Also, while not rejecting scientific and quantitative techniques, the OECD stresses the importance of the human context of risk (OECD\textsuperscript{26}, p258). In relation to the management of systemic risk factors such as the need to “develop risk awareness and a safety culture” and to “enhance dialogue and build trust” are stressed (OECD, pp270-271).


\textsuperscript{26} OECD (2003), Emerging risks in the 21st century. An agenda for action, Paris: OECD.