NATIONAL AIRSPACE POLICY OF NEW ZEALAND

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FOREWORD TO NATIONAL AIRSPACE POLICY STATEMENT

When the government issued *Connecting New Zealand,* its policy direction for transport in August 2011, one of its aims was to help transport stakeholders understand how the government saw the transport system developing over the next decade, and thereby assist stakeholders with their own future investment decisions.

The government signalled that it would produce a National Airspace Policy to outline the future direction of airspace design and designation, and the principles that will be followed in decision making on airspace matters.

The National Airspace Policy achieves that aim. The Policy provides guidance on the future direction of the development and modernisation of New Zealand's airspace and air navigation system, and the desired attributes of the future system.

Associated with the Policy is a National Airspace and Air Navigation Plan, which will guide the aviation sector regarding future airspace design and the appropriate technologies for air traffic management systems. The plan will provide certainty for the sector's future investments in air navigation and air traffic management equipment acquisitions, and will be reviewed regularly to ensure it remains relevant. The safe and efficient movement of air traffic is at the heart of the policy and plan.

Hon Gerry Brownlee
Minister of Transport
Wellington, 24 April 2012

National Airspace Policy of New Zealand

Purpose

This policy statement is intended to provide guidance to the aviation sector in New Zealand as to the direction that the development and modernisation of the airspace and air navigation system will take over the next decade (or longer) to ensure the safe and efficient movement of air traffic. This statement is designed to set a framework under which the Civil Aviation Authority can develop a National Airspace and Air Navigation Plan, and designate different areas and classes of airspace consistent with this policy and the National Airspace and Air Navigation Plan.

This policy statement includes four principles to guide the Civil Aviation Authority and the Director of Civil Aviation in decisions on the classification and design of airspace, and two principles on the funding of air traffic management and air navigation services, and their resilience. The principles are complemented by the government's view of the desired attributes of New Zealand's future airspace system.

The government's overall goal is to grow the New Zealand economy to deliver greater prosperity, security and opportunities for all New Zealanders. The government's interest is therefore to ensure that New Zealand's future airspace and air navigation system supports the aviation sector in a way that will help it contribute to this objective.

As a consequence of this policy and the associated National Airspace and Air Navigation Plan, the aviation sector will be able to plan and make air navigation and air traffic management investment decisions with certainty as to the future of the New Zealand airspace and air navigation system. This includes the adoption of new and emerging technology in both territorial and international airspace managed by New Zealand.

Context

Article 1 of the Convention on International Civil Aviation, to which New Zealand is Party, acknowledges that every State has complete and exclusive sovereignty over the airspace above its territory. It is therefore appropriate that the Crown, through a delegation to the Director of Civil Aviation, classify and designate airspace in the national interest.

There is a world-wide 'step change' under way in air navigation involving a shift to performance-based technology. This step change is recognised in the International Civil Aviation Organization's vision for an integrated, harmonised and globally interoperable air navigation system. Technological advances in air navigation and air traffic services have the potential to bring about significant improvements in the safe and efficient operation of aircraft. These

changes are the driver of major projects to adopt the new technologies in other regions of the world including Australia, the United States and the European Union. The changes will impact the full spectrum of airspace and air navigation related services in New Zealand.

The International Civil Aviation Organization recognised the technological evolution in the early 1980s and led work on global standards for satellite-based communications, navigation, and surveillance/air traffic management systems. Its Global Air Navigation Plan was issued in 2007, providing member States with comprehensive guidance for the transition to a global air traffic management system. Developments in New Zealand will therefore be consistent with International Civil Aviation Organization guidance.

New Zealand has been innovative in some areas of development, for example in 1989 being the first country to implement a satellite-based air traffic control system over some 28.8 million square kilometres of oceanic (international) airspace delegated by the International Civil Aviation Organization to New Zealand's management, and recently taking part in proving flights to demonstrate more efficient air navigation techniques between New Zealand and the United States.

Government's interest

This policy statement is consistent with the government's goal for New Zealand's economic growth and its objective of an effective, efficient, safe, secure, accessible and resilient transport system that supports that growth.

Air transport is integral to the New Zealand economy as it is the primary international mode of transport for tourists, immigrants, and international business visitors. It is also important for connecting domestic communities (including to international air services), and for transporting high-value and/or time-sensitive freight. Private air transport and recreational aviation activities also make a valuable contribution to the economy.

This policy statement will inform an integrated planning process leading to the Civil Aviation Authority's promulgation of a National Airspace and Air Navigation Plan that will guide the aviation sector regarding the future airspace and air navigation system, including airspace use, and the adoption of new and emerging technologies to be employed in air navigation and air traffic management. The implementation of the plan will ensure that New Zealand's airspace and air navigation system will continue to be safe and efficient, accessible to all users, and comparable to international best practice. The Civil Aviation Authority will continuously monitor the National Airspace and Air Navigation Plan to identify whether any revision to the plan is necessary in future.

The policy statement will also provide the impetus for system-wide coordination of planning through the National Airspace and Air Navigation Plan, including reconciling any differing interests within the aviation sector concerning the designation and use of airspace and phasing of system

changes. It will also provide opportunities to improve the safety and efficiency of aircraft operations, integrate airspace planning with decisions on land use and ensure the appropriate regulatory requirements are sound, coherent, and stable.

Role of the Civil Aviation Authority

The Director of Civil Aviation shall continue to designate the dimensions and classes of controlled and uncontrolled airspace in New Zealand, consistent with International Civil Aviation Organization classifications, and shall promulgate them as appropriate following a consultative process. The Director of Civil Aviation will continue to promulgate 'special use' airspace as necessary in the interests of national security, or for any other reason in the public interest. Special use airspace includes restricted areas, military operating areas, mandatory broadcast zones, volcanic hazard zones, danger areas, and low-flying zones.

The Civil Aviation Authority is responsible for developing and promulgating the National Airspace and Air Navigation Plan, which shall be reviewed at least once every five years.

Role of the Airways Corporation of New Zealand Ltd

The Airways Corporation of New Zealand Ltd, a State-owned Enterprise, is the current provider of national air traffic services in New Zealand and for the international airspace assigned to New Zealand's management by the International Civil Aviation Organization.

Role of Aerodrome Operators

Aerodrome operators ensure the provision of the necessary infrastructure and facilities for safe and efficient aircraft operations, balancing the needs of aerodrome users. Aerodromes are obliged to ensure the provision of aerodrome air traffic services where required by the Director of Civil Aviation, and place limitations or requirements on those services and impacts on airspace (including potential obstacles) in the vicinity of and at aerodromes. The management and use of airspace in the vicinity of and at aerodromes can also impact on the efficiency of aerodrome operations. Aerodromes accordingly should play a role in system decisions and in coordination affecting their operation.

Principles to be applied to airspace classification and design

In undertaking the responsibilities outlined above, the Civil Aviation Authority and the Director of Civil Aviation shall consistently apply risk-based principles when making determinations as follows:

- *Safety* – that New Zealand's airspace will be managed holistically with safety as the principal objective.

- *Compatibility* – that New Zealand's airspace classification and air traffic services shall be compatible with international standards or best practice; and that New Zealand will manage international airspace assigned to it by the International Civil Aviation Organization consistent with international standards and best practice.
- *Protection of national interests* – the Civil Aviation Authority will continue to be able to designate areas of restricted airspace for military purposes, national emergencies, search and rescue operations, and in any other situation where it is deemed necessary in the interests of safety. Under normal circumstances, the New Zealand Defence Force is expected to have regard to the Civil Aviation Authority's designation of airspace in its operations, but under exceptional circumstances it will be able to operate freely and without restriction in any New Zealand airspace.
- *Accessibility* – except where restrictions on airspace access are necessary for safety, operational, or other reasons, all aircraft will be able to access such classes of airspace that the aircraft and crew are able to operate safely within.

Principles applying to provision of air traffic management and air navigation services

The following principles will apply to the future provision of air traffic management and air navigation services:

- *Funding of services* – the cost of providing services will continue to be recovered on a commercial basis with regard to legislation and, where appropriate, charging guidelines issued by the International Civil Aviation Organization.
- *Resilience* – the supporting systems and infrastructure will ensure that any disruption to the network as a result of natural disasters or interference is mitigated to the extent possible.

Desired attributes of New Zealand's airspace system

While ensuring that safety is not adversely impacted by any other objective, the government expects that the future airspace and air navigation system in New Zealand will have the following attributes:

Efficient

The air navigation system, and the design and classification of airspace will facilitate the efficient operation of aircraft within New Zealand airspace as an enabler of New Zealand's economic growth. In circumstances where there are several uses of airspace, this may require consultation to achieve the appropriate prioritisation of aircraft operations.

New systems and technologies will be introduced in a systematic and orderly manner, in accordance with the National Airspace and Air Navigation Plan.

Any investment decisions affecting the industry as a whole will be economically justified, and will ensure that non-commercial users are afforded the opportunity to participate in the system at reasonable cost. However, the slow uptake of new technologies by some airspace users will not impede the early adoption of technologies that result in benefits to the overall system.

Environmentally responsible

The government recognises that aviation has an impact on the environment in terms of both emissions and aircraft noise. The future airspace and air navigation system will be respectful of these impacts. Developments that can reduce the overall environmental impact of aviation will be pursued as long as this can be achieved safely and at reasonable cost.

The classification and designation of airspace, the use of in-aircraft navigation technology and provision of air traffic services will all contribute to the minimisation of aircraft engine emissions and the impacts of aircraft noise to the extent possible, consistent with safety and other requirements.

Integrated

There is an important interface between airspace and land use planning – at aerodromes regarding noise emissions from aircraft taking off and landing, and in the case of potential obstacles or hazards which extend beyond the immediate vicinity of aerodromes. More efficient performance-based procedures have the potential to reduce fuel use and emissions, and in some cases, may enable flight paths that reduce current impacts on development in the vicinity of aerodromes. The government expects the aviation sector and local authorities to proactively address their respective interests in any future planning. Local authorities should facilitate the adoption of rules and designations in regional and district plans that recognise new and modified aircraft arrival and departure paths, including timely completion of all submission and hearing procedures.

To avoid or mitigate incompatible land uses or activities and potential obstacles or hazards that will impact, or have the potential to impact on the safe and efficient operation of aircraft, regional and district plans should have regard to applicable Civil Aviation Rules. Airport authorities and local authorities should work together in a strategic, cooperative and integrated way to ensure that planning documents (including those under the Resource Management Act) appropriately reflect the required noise contours and/or controls and approach and departure paths that take account of current and projected traffic flows.

Resource Management Act planning tools (including plan rules and designations) should as far as practicable seek to avoid the establishment of land uses or activities and potential obstacles or hazards that are incompatible with aerodrome operations or create adverse effects.

Interoperable

New Zealand receives foreign aircraft operations and New Zealand registered aircraft operate globally. The safe and efficient operation of these aircraft is vital to New Zealand's economic progress. Therefore it is essential to enable both conformance with relevant International Civil Aviation Organization safety standards and interoperability between New Zealand's airspace, air navigation system and supporting technologies and those employed in our aviation partner economies.

The National Airspace and Air Navigation Plan will therefore be compatible with other global and regional plans, including the International Civil Aviation Organization's Global Air Navigation Plan, to the extent possible while taking into account any unique aspects of airspace and air traffic management in New Zealand. Any deviation from international best practice will be well justified.

Planning

A policy framework and national planning are required to ensure that the various components of the airspace and air navigation system operate and develop in a cohesive and coordinated manner. Aspects to be incorporated in the planning include:

- *Airspace classification and designation*: the specification of requirements for access to different volumes of airspace, and the types of air traffic service to be made available. The classification of airspace for air traffic services and the designation of airspace as controlled, uncontrolled or special use.

- *Air Traffic Management*: the provision of air traffic services to optimise safety and capacity.

- *Communications/Navigation/Surveillance*: respectively, the systems for transferring information between participants in the airspace system; the ability of flight crews to determine their position and accurately follow a defined flight route or path; and the ability of air traffic services to identify an aircraft's position and trajectory.

- *Meteorology*: the provision of meteorological information to participants in the aviation system.

- *Aerodromes*: the provision of infrastructure and services that meet the needs of aerodrome users and communities, including the safety and efficiency of aircraft operations.

- *Aeronautical Information Management*: The provision of quality-assured, accurate and timely aeronautical information to aviation system participants.

Safety is and will continue to be a primary objective of the airspace and air navigation system in New Zealand. Any new technologies, systems or procedures will be assessed against the benchmark of the overall safety of the system being at least maintained, and ideally, improved. Any decisions concerning the design and classification of a particular volume of airspace should take into account the safety implications for all airspace users, including those operating in close proximity to controlled airspace.

Conclusion

The government expects that this policy statement will promote a safe and capable airspace and air navigation system both within New Zealand and the international airspace it manages, that measures up to international safety standards and best practices, and contributes to economic growth through efficiency gains.

Ministry of Transport
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