Ministry of Transport
TE MANATŪ WAKA

OC210337

5 May 2021

[redacted]

Withheld on privacy grounds.

Dear [redacted] Withheld on privacy grounds.

I refer to your request dated 22 April 2021, pursuant to the Official Information Act 1982 ("the Act"):

> *Pursuant to section 11 of the Official Information Act, we formally request any Ministry of Transport briefings provided to the current or previous Minister of Transport on the following topics:*
>
> - *Options for supporting regional air connectivity*
> - *Airways New Zealand structure and incentives, and*
> - *Air navigation services and regional connectivity.*

The following documents fall within the scope of your request and are enclosed:

1. a briefing to the Minister of Transport *Options for supporting regional air connectivity*, dated 11 April 2019
2. a briefing to the Minister of Transport *Airways – Structure and Incentives*, dated 31 October 2019
3. a briefing to the Minister of Transport *Air Navigation Services and Regional Connectivity*, dated 9 February 2021.

Certain information has been withheld from the three documents under the grounds set out below (not all of which apply to each document).

- Section 9(2)(a) of the Act in order to protect the privacy of natural persons. This information relates to certain names and phone numbers.
- Section 9(2)(b)(ii) of the Act in order to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information.

- Section 9(2)(ba)(i) of the Act in order to protect information which is subject to an obligation of confidence or which any person has been or could be compelled to provide under the authority of any enactment, where the making available of the information would be likely to prejudice the supply of similar information, or information from the same source, and it is in the public interest that such information should continue to be supplied.

- Section 9(2)(f)(iv) of the Act in order to maintain the constitutional conventions for the time being which protect the confidentiality of advice tendered by officials.

- Section 9(2)(g)(i) of the Act in order to maintain the effective conduct of public affairs through the free and frank expression of opinions by or between or to Ministers of the Crown or members of an organisation or officers and employees of any public service agency or organisation in the course of their duty.

- Section 9(2)(i) of the Act in order to enable a Minister of the Crown or any public service agency or organisation holding the information to carry out, without prejudice or disadvantage, commercial activities.

- Section 9(2)(j) of the Act in order to enable a Minister of the Crown or any public service agency or organisation holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).

In regard to the information that has been withheld under section 9 of the Act, I am of the opinion that there are no countervailing considerations that make it desirable, in the public interest, to make the information available.

You have the right under section 28(3) of the Official Information Act to make a complaint about the withholding of information to the Ombudsman, whose address for contact purposes is:

The Ombudsman
Office of the Ombudsmen
P O Box 10-152
WELLINGTON

Please note that there is an error in the briefing to the Minister of Transport *Options for supporting regional air connectivity*, dated 11 April 2019. The total in the Table on paragraph 38 has been stated as $42 million. This is an error and should be $21 million.

The Ministry publishes our Official Information Act responses, and the information contained in our reply to you will be published on the Ministry website. Before publishing, we will remove any personal or identifiable information.

Yours sincerely

Tom Forster
Manager, Economic Regulation

Ministry of Transport
TE MANATŪ WAKA

BRIEFING

Options for supporting regional air connectivity

Reason for this briefing	To provide options for supporting regional air connectivity in New Zealand, for you to consider with Regional Economic Development Ministers.
Action required	Discuss with officials.
Deadline	Monday 15 April
Reason for deadline	You are meeting with officials on 15 April 2019.

Contact for telephone discussion (if required)

Name	Position	Telephone	First contact
Tom Forster	Manager – International Connections	[redacted]	✓
Sonya van de Geer	Principal Adviser	[redacted]	
Russell Brown	Senior Adviser	[redacted]	

Withheld under Section 9(2)(a) of the Official Information Act 1982

MINISTER'S COMMENTS:

Date:	11 April 2019	**Briefing number:**	OC190291
Attention:	Hon Phil Twyford	**Security level:**	In confidence

Minister of Transport's office actions

☐ *Noted* ☐ *Seen* ☐ *Approved*

☐ *Needs change* ☐ *Referred to*

☐ *Withdrawn* ☐ *Not seen by Minister* ☐ *Overtaken by events*

Purpose

1. This briefing provides you with options for supporting sustainable regional air connectivity in New Zealand, and recommends developing a strategic approach that includes a dedicated fund to subsidise air connectivity.

2. This builds on previous work that has outlined high-level principles for assessing the value of air connectivity, and work commissioned by the Ministry of Transport to produce an economic model for assessing the costs and benefits of improvements to particular airports.

3. The briefing also outlines some projects that may lead to applications for investment from the Provincial Growth Fund. These could present opportunities for Ministers to support regional air connectivity, as well as economic development, in the short term.

Executive summary

4. As part of its overall transport strategy, the Ministry of Transport is undertaking work on regional air connectivity, and what transport choices New Zealanders need to have available to ensure access to social and economic opportunities.

5. The main issue we have identified is that a number of smaller airports are not able to raise enough revenue from aeronautical fees or other income to maintain the necessary infrastructure and standards. These airports are supported by local councils, but this puts a strain on regional ratepayers. Underinvestment has meant facilities such as terminals and runways have deteriorated. Some airports are also facing other issues, such as erosion or changing service requirements, that impose further costs. This situation is unlikely to be sustainable, and the extent and quality of regional air connectivity is at risk.

6. Several airports can show that improving their facilities could contribute to regional economic growth, and have made applications for funding to the Provincial Growth Fund. The Fund has already invested in three airports, and more applications are being evaluated or are expected. This is a great opportunity for Ministers to support regional air connectivity in the short term, and to bring some services well up to date with regional needs. The Ministry of Transport is providing advice on evaluating Provincial Growth Fund applications, and has also engaged with NZ Airports, and with some of the airports directly.

7. In this paper we further propose that the inevitable ongoing costs of maintaining airports that cannot support themselves commercially should be part of the government's overall transport planning and provision. We recommend that this include a dedicated fund that can be used to ensure that adequate air connectivity is supported throughout the country. Such a fund should at least guarantee a certain minimum coverage and standard of airports, as this is fundamental to air connectivity. Airline operators are better able to respond to changing demand and we are not aware of significant gaps in the provision of air services. However, if gaps in air service provision were identified, depending on how a dedicated fund is structured, it could also subsidise air services.

8. Some options are suggested for how a fund could be structured and resourced, and we seek your views on the direction of further work.

Regional air connectivity is important

9. New Zealanders expect transport infrastructure that gives them access to essential services and economic opportunities. For most of the country, roads provide good connectivity, and most freight is distributed by truck. Air connectivity complements these other forms of transport and most New Zealanders have a range of choices available to them.

10. However, different modes offer different benefits, including speed and convenience, and have different price structures. Air travel and air freight provide important support for social and economic activity, and regional air connectivity in particular provides, amongst other things, the following functions.

Connectivity and access

11. Regional airports and air services connect people and businesses to larger hubs and from there to the rest of New Zealand and overseas. New Zealand is not a densely populated country – people are spread out – but most parts of the country are just a short flight away from a city or an international connection.

12. Regional airports provide access to health care services and emergency services. Regional populations cannot support specialist health care, so air connectivity is an important part of even routine health provision. Emergency medical services, using fixed wing aircraft or helicopters get medical assistance to people, and people to hospitals, in less foreseeable circumstances.

Economic prosperity

13. Airports and air services are essential to domestic and international tourism. Most international visitors arrive by air, and many of them will also fly within the country. Regional tourism is growing and depends on transport links with international hubs.

14. Air services deliver less freight domestically than trucks, or internationally than ships. But air freight is high value, including time-sensitive exports and imports such as perishable goods and post. Many airports are also freight hubs.

15. Airports are themselves employers, and often also have a cluster of businesses around them, based on access to wider markets.

Resilience

16. Airports and air services contribute to regional economic and transport resilience. Our transport network is vulnerable to disruptions from crashes and natural events. Some regions are easily isolated if roads become impassable or congested, cutting businesses off from markets. Air access can be essential to emergency responses and subsequent recovery, as was evident after the 2016 Kaikoura earthquake.

17. Airports contribute to the resilience of the aviation network itself, which requires redundancy of both destinations and means of navigation. Flight plans must include alternate airports in case bad weather rules out the intended destination. Pilots also need to be able to use an alternative means of navigation if the primary means becomes unavailable. Increasingly, instrument navigation uses satellite positioning, but there is still a nationwide network of ground-based navigation beacons, hosted at airports, that can also be used, and which are an essential back-up.

The state of regional air connectivity in New Zealand?

18. New Zealand is well served by airlines. Air New Zealand serves 20 domestic destinations, and Jetstar travels to 9. Apart from the main trunk routes, these two airlines service most of the regional routes using 50-seat Q300 aircraft.

19. There are also many smaller airlines providing scheduled services, mostly connecting smaller towns with cities, and charter services. The destinations flown by the smaller airlines are outlined in the table below.

20. However, some smaller airports are not able to raise enough revenue to maintain their infrastructure.[1] Most are at least partly owned and supported by local government, which indicates the value those communities place on air connectivity, but puts a burden on ratepayers that according to NZ Airports is unsustainable.

Government support for regional air connectivity

21. In recent times, the government has had little direct involvement in providing and supporting regional air connectivity, apart from the airports it has an ownership stake in.

22. Five airports are co-owned by the Crown under individual Joint Venture agreements. Whilst each deed differs slightly, in general these oblige the Crown to pay half the operating loss of these airports, and half of agreed capital works required to maintain and operate the airport. All five Joint Venture airports are among those identified by NZ Airports as at risk (see below).

23. While the Joint Venture agreements do give some airports access to government assistance, they do so on the basis of historical commitments rather than any strategic overview of regional air connectivity.

24. The following table lists the towns and cities that have air services, and the relative size of their airports, to show roughly where government assistance could be considered. The larger airports should be commercially sustainable and able to make ongoing investment in infrastructure without central government assistance. Some of the smaller airports will struggle to fund essential infrastructure or enhancements that will assist economic growth. We have not identified any gaps in air services, but depending on the level of connectivity the government considers communities should expect, there may be a case for some assistance.

[1] This was what prompted NZ Airports to release *Linking the Long White Cloud* in 2017, which advocated for government support for smaller airports.

Air services	Airport infrastructure
Air New Zealand flies to: Auckland, Gisborne, Hamilton, Kerikeri, Napier, New Plymouth, Palmerston North, Rotorua, Taupo, Tauranga, Wellington, Whangarei, Blenheim, Christchurch, Dunedin, Hokitika, Invercargill, Nelson, Queenstown, Timaru. Jetstar flies to: Auckland, Christchurch, Dunedin, Napier, New Plymouth, Nelson, Palmerston North, Wellington, Queenstown. Some smaller airlines also fly to these destinations.	International airports: Auckland, Wellington, Christchurch*, Queenstown. Large regional airports: Dunedin*, Hawkes Bay*, Napier, Nelson, Palmerston North. (*Corporatised airports in which the Crown holds shares.)
Smaller airlines provide further scheduled services to: Great Barrier Island, Whakatāne, Kaikoura, Whanganui, Picton, Chatham Island, Kaitaia, Oamaru, Wanaka, Stewart Island, Takaka, Whitianga, Paraparaumu, Westport. Charter services are also available for ad hoc flights.	Regional airports: Invercargill, Marlborough, Hamilton, New Plymouth, Rotorua, Tauranga. Small airports (fewer than 200,000 passengers): Chatham Island, Gisborne, Hokitika, Kaitaia, Kerikeri, Masterton, Timaru Crown Joint Venture airports: Taupō, Whangarei, Whakatāne, Whanganui, Westport Crown owned (cost recovery operation): Milford Sound
There may be gaps in service if: • there are potential routes that smaller airlines have not taken up • there are socially desirable routes that cannot be provided commercially • there are opportunities for economic growth that have not been taken up.	There may be gaps in service if: • an airport is not viable, either commercially or with local government support • there is a social need for an airport • there are opportunities for economic growth that have not taken up.

	No clear government role
	Potential government role, including Provincial Growth Fund
	Need to consider the overall funding model

How do other countries support regional air connectivity?

25. Many other countries ensure regional air connectivity by directly or indirectly subsidising remote airports or air services. These subsidies can be considerable, and are justified as providing services that are essential for connectivity.

26. The EU allows members of the European Economic Area to subsidise infrastructure for airports with less than 3 million passengers annually, but for small airports they may only subsidise operating costs. Public Service Obligations involve tenders for domestic air services that include fare limits and per passenger subsidies. Governments can also pay for access infrastructure, such as road and rail.

27. Norway and Spain have a publicly owned operator for most airports, so allow cross-subsidisation of airports that are not commercially viable. Like New Zealand, Norway has only a few profitable airports – most of the revenue to support the network comes from just four airports. Spain also directly subsidises island residents, with 50% off fares.

28. In the United States, the Airport Improvement Program uses aviation taxes to fund small airports. Air services are also subsidised for airports that would not otherwise receive scheduled services.

29. Canada funds airports if they are owned by the Crown or if they are considered remote. The performance of funded airports is assessed by whether they are open all year, stay safe and maintain their certification.

30. In Australia, the Remote Air Service Subsidy assists 366 communities of under 200 people. Services are provided by seven air operators. The federal government in Australia has recently announced $100 million in funding for upgrades at regional airports.

Does regional air connectivity need support in New Zealand?

31. A network of airports to support air connectivity throughout the country is a fundamental part of our national transport infrastructure.

32. Airports also serve the network not only as primary destinations, but as sites for navigation aids, and alternate destinations in case of malfunction, fuel shortage, bad weather or satellite navigation fault.

33. The most pressing issue for small regional airports is that they are struggling to maintain infrastructure or respond to increasing demand. In many cases expenditure is being deferred and facilities are deteriorating, even at airports that are being supported by ratepayers or the government.

34. The Joint Venture arrangements, whereby some regional airports do have direct access to government funding, at least support those airports. But they are a historical legacy, not a strategic approach to the network, may not be cost effective and may have adverse effects on markets. Furthermore, the budget available to meet Joint Venture expenses is limited[2] and must be shared between airports. The government is currently struggling to satisfy demands on this budget, despite its legal obligations.

35. NZ Airports has been advocating for the government to support regional air connectivity by subsidising airports that are not commercially sustainable, and which it says are at risk of

[2] The Crown has available a five-year multi-year appropriation (2018/19 to 2022/23) of $2.500 million – effectively $0.500 million per year.

closure. In 2017, it released a document, *Linking the Long White Cloud*, setting out the issues as it sees them. It identifies 12 airports that it says are unsustainable and at risk[3].

What can the government do?

Airports

36. The costs of maintaining the minimum standards for an airport to operate are high, even if it only supports a few services. NZ Airports has provided the following estimates, updating those it presented in *Linking the Long White Cloud*. These estimates are in line with costs at our Joint Venture airports but are likely to be conservative.

37. The main problems faced by the airports are the cost of maintaining or improving infrastructure, or retaining and attracting services – and this is what the airports would like support for.

38. The estimates below are for 12 airports, assuming a 20-year economic life for runway seals and major terminal upgrades, and including remedial runway work between full reseals[4].

Capital Projects	Year 1	Year 2	Year 3	Year 4	Year 5	5 year total
Air Navigation Services upgrade or replacement	$3 m	$3 m	$3 m			$9 m
Runway Resurfacing	$1.3 m	$1.3 m	$1.3 m	$1.3 m	$1.3 m	$6.5 m
Terminal Refurbishment	$1.1 m	$1.1 m	$1.1 m	$1.1 m	$1.1 m	$5.5 m
Infrastructure total	$5.4 m	$5.4 m	$5.4 m	$2.4 m	$2.4 m	$21.0 m
						$42 m

39. Assuming typical sizes for terminals and runways, NZ Airports suggests the investment at each airport over 20 years is about $1.8 million for a major terminal refurbishment, and $2.1 million for runway work. Terminal refurbishments vary quite a bit in cost, depending on the requirements of the particular airport. The applications received for support from the PGF have been considerably higher.

40. The estimates above probably focus on the basic operating requirements and leave little room for funding projects intended to increase airport capacity or stimulate the regional economy.

[3] Chatham Island, Gisborne, Hokitika, Kaitaia, Kerikeri, Masterton, Taupō, Timaru, Westport, Whakatāne, Whanganui, Whangarei.

[4] The table does not include inflation, so is in current dollars. The air navigation service costs (such as landing and runway lights) have not been updated from the 2017 estimates.

41. Depending on what is funded, and what proportion of costs is covered by the government, a subsidy fund would have to make at least $5-10 million available per year.

Air services

42. Air connectivity requires not only airports, but airlines providing services to those airports. Airlines are, obviously, mobile and can follow opportunities around the country. With enough players, we should expect competition for routes and an effective market. New Zealand does have a number of small airlines, and we do see quite a bit of activity in the market, with some airlines keen to expand into new routes.

43. New Zealand is generally well connected by domestic air services as outlined in the diagram below.

44. We are not aware of significant ongoing gaps in service. However, this is possible as there may be gaps when an airline decides to exit a route, while the market readjusts, where no suitable provider is available, or where the commercial risks are unacceptable. There may also be routes that could not be served commercially, but which are socially desirable.

45. Air New Zealand has informed us that it has no plans to exit any of the routes it currently serves.

46. The Ministry's view is that the best option for government support for air services, if demand for specific services or routes is identified, is to tender for airlines to provide those services.

47. In Linking the Long White Cloud, NZ Airports suggested that underwriting essential air services could cost around $3 million per year, but we understand that this is not based on specific proposals.

How to subsidise regional air connectivity

48. The following sections suggest ways for the government to provide ongoing funding to ensure comprehensive air connectivity for regional New Zealand. We seek your views on these proposals.

Eligibility for subsidy

49. We suggest that three considerations are relevant to criteria for subsidising air connectivity.

    49.1. Is a facility or service essential to a community's access to the transport system, such that the government should guarantee provision?

    49.2. Is a facility or service commercially sustainable?

    49.3. Could a facility or service be commercially sustainable – i.e. are there commercially viable services that are not being provided, or opportunities for economic growth that are not being captured?

50. These are independent justifications and may not pick out the same candidates. We recommend a programme to subsidise, at least, airports or air services that are essential for regional connectivity and which cannot be provided commercially.

51. It could be argued that if the government is to guarantee essential services, they should all be provided on a similar basis, regardless of commercial potential. But the point is to ensure fair access – i.e. at a reasonable cost to the user – so there is no reason to subsidise services that can be sustained by reasonable prices. Furthermore, subsidising commercial services could be expected to reduce the effectiveness of wider transport markets and reduce the efficiency of the transport network.

52. Depending on how funding is made available (see below), subsidies could also be used to kick-start services that could be commercially provided but which for some reason are not, or to capture growth opportunities (i.e. to address market failures). At the moment, the Provincial Growth Fund can make funding available for this purpose.

53. If the government is to provide funding for essential services, it would be appropriate to rationalise the government's relationship with Joint Venture airports within this overall framework.

Essential services

54. Criteria for assessing the need for air connectivity can be used to assess existing services or to identify gaps.

55. The subsidy programmes in Europe and United States assess whether particular air connections should be subsidised by specifying the level of service that communities should expect.

56. The criteria used in Europe to determine Public Service Obligations include assessing access to useful destinations such as a major city or administrative centre, a transport hub or international airport, a large hospital, or a university. Such criteria are usually evaluated in terms of travel time. There may also be requirements for the capacity and frequency of any subsidised service, the size of aircraft used, emissions or ticket prices.

57. To be eligible for subsidy under the US Essential Air Service programme, a community must be at least 282 kilometres from a large or medium airport, and have at least 10 passengers per day (there are looser requirements for Alaska and Hawaii). There are also requirements for services with no more than one connection, and for the times of day when services must be provided. Providers are selected based on: experience and reliability; contractual arrangements and interline agreements with a larger carrier for service beyond the destination airport; the views and preferences of the community; and any marketing plans.

58. The Ministry of Transport has been considering some criteria by which air connectivity to a region might be evaluated in New Zealand, which may include the following.

- How far are people from airports?

- Where do services go?
- Is it possible to do a day's business in a large town or city?
- Are other transport modes available?
- How many people are served?
- How easy is it to get to large city hospitals?

59. There are also broader considerations that should be factored into evaluations where relevant.
    - Emergency resilience.
    - Disaster relief.
    - Benefits to the network (e.g. alternate airports in bad weather).

Commercial viability

60. The number of passengers using an airport is correlated with the potential income from airport charges (and perhaps more loosely with costs). Given the significant minimum cost of maintaining a functioning airport, passenger numbers provide a rough but credible threshold of commercial viability.

61. Previous work undertaken by NZ airports, which included consideration of a 2016 Office of the Auditor-General report on local government audits suggested that annual passenger numbers of about 200,000 was a threshold above which airports tend to be commercially self-sustaining.

62. NZ airports has provided the following table of the number of passengers using small airports. The next biggest airport is Rotorua with about 240,000 passengers, which we understand is operating satisfactorily.

	To 31 March 2017	To 31 March 2018
Airport	**Passengers**	
Gisborne	156,146	170,993
Kerikeri and Kaitaia	99,593	111,255
Whangarei	91,000	97,400
Taupō	53,320	60,200
Whanganui	47,390	45,360
Hokitika	38,767	42,318
Timaru	42,000	51,458
Whakatāne[5]	23,280	25,476
Chatham Islands	Not available	12,800
Westport[6]	[redacted]	[redacted]
Masterton	-	-

63. The largest airport that NZ Airports considers to be at risk – Gisborne – is the only one in the gap between 100,000 and 200,000, with about 170,000 passengers a year. One airport – Kapiti – has fewer than 100,000 but is not considered at risk.

64. For funding purposes, a threshold for commercial viability could be set at 200,000 passengers per year.

Economic growth and the Provincial Growth Fund

65. The government currently makes funding available through the Provincial Growth Fund to capture opportunities for economic growth. Several airports and air services, including all of the airports that NZ Airports considers at risk except for [redacted] and [redacted], have expressed interest or applied for funding. Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

66. Applications for funding from the Provincial Growth Fund are assessed against criteria which include requirements that any project:

- increase regional productivity
- contribute to other government and Fund objectives, including job creation, community benefits, improved use of Māori assets, sustainability of natural assets, and mitigating and adapting to climate change
- create additional value and avoid duplicating existing efforts
- accord with regional priorities and be supported by stakeholders

[5] The figures for Whakatāne are from the airport's annual report, [redacted]

[redacted]

- be well managed, well-governed and have appropriate trade-offs between risk and reward.

67. The Provincial Growth Fund has so far invested in two regional airports: Kerikeri and Gisborne. It has declined a funding request from the airline, Sounds Air.

68. An application from Westport, to rebuild a seawall it needs to retain certification, has just been approved ($2.074 million).

69. The Provincial Development Unit is currently considering funding requests from these airports.

- Invercargill – apron extension and terminal upgrades ($0.5 million).
- New Plymouth – development of a business case for a runway extension and realignment ($56,762). Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982
- [redacted]

70. The Provincial Development Unit anticipates further requests soon.

- Taupō – terminal upgrade and extension.
- [redacted]
- Whanganui – runway and taxiway resurfacing, and a new taxiway
- [redacted]

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

71. The Ministry of Transport has been informed **in confidence** that the following airports are also planning or considering requests for funding.

- [redacted]

Withheld under Section 9(2)(ba)(i) of the Official Information Act 1982

72. The Provincial Development Unit is focussed on regional productivity and, while it has noted that maintaining capacity is a consideration, it is unlikely to invest in deteriorating airport facilities unless there is also potential for growth. The Ministry of Transport provides advice on funding applications.

73. The Provincial Development Unit will be advising the May meeting of Regional Economic Development Ministers of the five airports that it is most likely to invest in. This has been discussed with the Ministry of Transport and we support the Unit's assessment.

74. The Provincial Growth Fund is a short-term measure. If a dedicated subsidy fund were to be available for air connectivity projects in the long term, it could include funding for projects aimed at economic growth. Such a fund would likely have to be larger than one that only funded essential infrastructure. However, funding growth could put airports on a commercial footing and reduce the need for future subsidy.

How would funding be provided?

75. To subsidise air connectivity, it would be best if a dedicated fund is made available for the purpose, rather than enabling ad hoc budget bids. The costs are ongoing and, though they include both periodic and emergency expenses, are reasonably predictable.

76. We have identified several funding options for providing support for regional air connectivity. These are discussed below.

Option: general taxation

77. The goals of subsidising air connectivity relate either to the national good, or to principles of national provision. On that basis, a fund could be drawn from general taxation, and the costs would fall on those who benefit.

78. It is likely that this option would be the most straightforward to administer, since it would not require new collection mechanisms. It would also be the most flexible, in that changing the size or conditions of the fund would not require changing probably legislated taxes or levies. However, this option would not raise new revenue, so would have to be traded off against other expenditure.

Option: aviation tax

79. Some jurisdictions impose excise taxes on a range of aviation services, such as airline tickets, international passenger arrivals and departures, and aviation fuel.

80. In the United States, aviation taxes are used to fund the FAA, including its Airport Improvement Program, which subsidises small airports.

81. The participants in the aviation sec or benefit from the maintenance of the sector and should contribute to its cost. However, like the following options, this involves cross-subsidisation of part of the aviation system by users of the other parts. Ultimately, the cost is likely to be borne by some airline passengers. S ngling out passengers for this cost may only be justifiable if it is thought that they receive network benefits relating to their travel (in addition to network benefits received by all New Zealanders). This may be the case; for example, flight plans require a ternate airports in addition to the actual destination.

82. Taxes or levies that will end up in the price of tickets could affect tourism or reduce New Zealander's access to travel. The costs considered here would have little effect on prices, but there are already many government-imposed levies contributing to ticket prices, and their cumulative effect is considerable.

Option: levy service providers

83. Businesses that benefit commercially from New Zealand's aviation network could be required to contribute to maintaining the wider network. A regional air connectivity Levy would apply to commercial airports and airlines, and a statutory determination process used to identify which service providers should be liable.

84. Such an arrangement would be similar to the Telecommunications Development Levy that has been used in New Zealand to fund rural broadband among other things.

85. This option also involves cross-subsidisation – ultimately by some passengers, who will pay more for tickets. If some businesses receive network benefits from the aviation system, it may be reasonable to pass these costs on to passengers, even if they do not.

Option: airport dividends

86. NZ Airports proposed, in *Linking the Long White Cloud*, that a fund be drawn from the dividends that the government receives from the profitable airports in which it has shares, and include the money currently budgeted for the Crown contribution to Joint Venture airports. Thus passengers using Dunedin, Christchurch and Hawkes Bay airports would contribute to the maintenance of small regional airports. Currently, dividends from these airports amount to about $10 million – almost all from Christchurch. NZ Airports claims that in this way the fund would be drawn from within the sector, without additional money being required.

87. Income from airport dividends is about the right size to contribute to a fund, but this would diverting existing revenue, so cannot be said to require no additional money. The burden would effectively fall on passengers using Christchurch airport.

Option: require Airways to maintain minimum standards

88. Many of the operational costs of an airport are for services that can be provided by Airways. These include runway lighting, navigational beacons and instrument flight procedures, though not major infrastructure like runways and termina s. Indeed, some airports face recently increased costs because Airways had been providing these services, and has withdrawn them. [redacted]

Withheld under Section 9(2)(f)(iv) of the Official Information Act 1982

89. However, Airways receives its revenue from charging for its services – mostly from large airlines, especially Air New Zealand, who recover it from passengers. The government may also direct Airways, as an SOE, to undertake non-commercial activities, but in that case the government would have to provide funding to Airways for the purpose.

90. This option may be efficient for the costs it covers, as funds do not have to be distributed to airports, but would not address the most significant costs.

Options for allocating subsidies

91. The following are options for how a subsidy fund could be structured. They are not mutually exclusive and a fund could have all of these features.

92. If funding were to be made available, more work will need to be done on criteria for assessing applications for it.

Specified expenditure to maintain minimum standards.

93. The government could guarantee at least a minimum standard of infrastructure for eligible airports – for example, adequate runways, terminals, lights, and instrument flight procedures. This would include any new security requirements that may be placed on airports as a result of the review of our airport security after the Christchurch terrorist event.

94. Funding allocation decisions and administration would be relatively easier. Subject to approval of what was needed and proposed, decisions would be fairly uncontroversial, and could be predicted and planned for with some confidence. This would be similar to the basis on which the Joint Venture airports are supported.

Contestable fund

95. A more flexible subsidy could be managed using a contestable fund. This would require airports, or their local authorities, to make their case for proposed expenditure, drawing on their own knowledge of regional needs, opportunities and markets.

96. A contestable fund need have fewer constraints on what could be paid for, but should have clear criteria for evaluating proposals. It could, for example, extend beyond airport infrastructure to air services, airport access infrastructure or even economic opportunities.

Shared costs

97. Depending on what is subsidised, we would recommend requiring that a share of any proposed work is paid for by the airport operator or service provider. Particularly if funding is available for more than the minimum necessary infrastructure, such a requirement would impose discipline on funding requests in terms of assessing both needs and costs.

Benefits of Government support

98. Airports that cannot cover their costs from their revenue will either eventually close to scheduled services or will be propped up by their communities.

99. If regional airports are lost, communities will have reduced access to transport and the social and economic opportunities it provides. There are likely to also be wider, national social and economic benefits at stake.

100. Government support would enable vital airports and essential air services to continue to be operated and provided, and would increase the resilience of the network.

Risks of Government Support

101. Subsidies can reduce incentives for efficiency and raise the costs of the transport network.

102. Subsidies can affect neighbouring markets, such as by attracting providers or resources away from marginally commercial services. For example a subsidy benefitting Whakatāne Airport could negatively impact unsubsidised services at Rotorua or Tauranga Airports, and similarly a subsidy for Whanganui Airport could affect Palmerston North Airport.

103. Subsidies can encourage recipients to shift the costs of infrastructure or services to subsidised areas – i.e. to cross-subsidise otherwise unsubsidised provision.

104. A contestable fund might encourage resources to be diverted into building competitive applications, and might favour better resourced airports.

105. Some of these risks can be mitigated by having strict funding criteria, making careful funding decisions, auditing applicants or making funding contestable. Better efficiency incentives might be created by allowing airports to keep some portion of efficiency gains, or requiring a fixed proportion of the cost of any project to be supplied by the applicant.

Potential legislative requirements Withheld under Section 9(2)(f)(iv) of the Official Information Act 1982

106. Currently airports are required to operate as commercial undertakings. NZ airports have long advocated that such a requirement is perverse as most small regional airports are unable to be commercial. [redacted]

107. [redacted]

108. It may be necessary to [redacted]

Recommendations

109. The recommendations are that you:

note that some airports are not commercially viable and are either at risk of closure or are imposing a high cost on ratepayers to maintain highly valued air services

note that there is a case for subsidising at least some airports to guarantee a minimum level of air connectivity

note that several airports, including most of the airports that are not commercially sustainable, have made or intend to make applications for funding from the Provincial Growth Fund – this is an opportunity to prevent the decline of neglected infrastructure or take advantage of grow h

note that the Ministry of Transport is providing advice to the Provincial Development Unit on Provincial Growth Fund applications which relate to air connectivity

agree to set up a dedicated fund to secure a minimum level of regiona air connectivity in New Zealand — Yes / No

indicate what types of fund you would like further work to be done on

funding for specified basic infrastructure	Yes / No
a contestable fund with potentially wider application	Yes / No

indicate what funding sources you would like further work to be done on

general taxation	Yes / No
aviation tax	Yes / No
levy on service providers	Yes / No
airport dividends	Yes / No
Airways	Yes / No

Tom Forster
Manager International Connections

MINISTER'S SIGNATURE:

DATE:

Ministry of Transport
TE MANATŪ WAKA

Document 2

Received
01 NOV 2019
Office of Hon Phil Twyford

BRIEFING

Airways- Structure and Incentives

Reason for this briefing	This briefing outlines Ministry concerns in relation to Airways Corporation of New Zealand Limited and the options we are considering to address these.
Action required	Note and discuss the contents of this briefing with Ministry officials.
Deadline	None
Reason for deadline	-

Contact for telephone discussion (if required)

Name	Position	Telephone	First contact
Kirstie Hewlett	Deputy Chief Executive	[redacted]	✓
Tom Forster	Manager, International Connections	[redacted]	
Sonya van de Geer	Principal Adviser	[redacted]	

MINISTER'S COMMENTS:

Date:	31 October 2019	**Briefing number:**	OC090961
Attention:	Hon Phil Twyford (Minister of Transport)	**Security level:**	In confidence

Minister of Transport's office actions

☐ *Noted* ☐ *Seen* ☑ *Approved*

☐ *Needs change* ☐ *Referred to*

☐ *Withdrawn* ☐ *Not seen by Minister* ☐ *Overtaken by events*

Purpose of the briefing

1. The purpose of this briefing is to:

   1.1. outline Ministry of Transport concerns about the current approach and form of Airways Corporation of New Zealand Limited (Airways); and

   1.2. outline options to mitigate these concerns.

Executive summary

2. Airways is the State-owned enterprise (SOE) that operates key parts of New Zealand's air traffic control system as a statutory monopoly under the Civil Aviation Act 1990.

3. Airways is subject to business performance monitoring by the Treasury and safety-related oversight by the Civil Aviation Authority (CAA), but the current model does not allow for systematic monitoring of services standards or contribution to system outcomes.

4. We are seeing some issues with Airways performance that raise concerns:

   4.1. Airways is increasingly focussed on new services and new technologies with concerns being raised about delivery of its core role

   4.2. Airways does not always engage actively or early with the regulator on new technology

   4.3. Airways is pulling out of providing services outside of its core role that are important for regional airports

   4.4. Airways may be showing signs of rent seeking behaviour in its pricing decisions, and leveraging its monopoly to expand into new services.

5. There are a number of options that could address some of these concerns:

   5.1. Retaining the ability to change the scope of Airways' monopoly or remove it, [redacted]

   Withheld under Section 9(2)(f)(iv) of the Official Information Act 1982

   5.2. Using existing levers to make Government expectations of Airways role in the system clearer

   5.3. [redacted]

   Withheld under Section 9(2)(f)(iv) of the Official Information Act 1982

6. These options can be explored in combination. We are currently working with Treasury to clarify the role Airways plays in the aviation system, what outcomes the Government wants from the entity, and what the best options are to deliver this.

Context

Airways is a State-owned enterprise

7. Airways is the State-owned enterprise that operates key parts of New Zealand's air traffic control system as a statutory monopoly under the Civil Aviation Act 1990.

8. As a State–owned enterprise, Airways' principal statutory objective is to operate as a successful business and, to this end, to be:

   8.1. as profitable and efficient as comparable businesses that are not owned by the Crown

   8.2. a good employer

   8.3. an organisation that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates and by endeavouring to accommodate or encourage these when able to do so.[1]

9. Airways is a State-owned enterprise, which means the Ministry does not have a formal monitoring role over it. As the Minister of Transport, you have no formal responsibility to influence how Airways operates. Instead, Airways is monitored by the Treasury, which is principally focussed on protecting the value of the Crown's commercial portfolio, and monitoring that the dividend that Airways provides is in line with government expectations for commercial performance and return on investment. Its shareholding ministers are the Minister of Finance and Minister of State-owned enterprises.

CAA is the safety regulator

10. Airways, as the holder of an aviation document, can be required to meet requirements and provide services that align with the Civil Aviation Act and rules made under it, in the same way as other aviation system participants including pilots, airlines and airports. The CAA monitors Airways compliance with its aviation document. This is largely limited to ensuring safe operation of air services in compliance with the document, which is a relatively narrow ambit. It does not relate to broader aviation system objectives.

Airways has a statutory monopoly for parts of its business

11. Airways' statutory monopoly is established through section 99 of the Civil Aviation Act, which provides that Airways is the only person entitled to provide area control services, approach control services or flight information services. The monopoly does not apply to *aerodrome* control services or *aerodrome* flight information services.

12. Essentially, Airways has a statutory monopoly on air traffic control services and the provision of information intended for the safe and efficient conduct of flights, *except* in the vicinity of an aerodrome.

13. Airways provides additional aviation services such as air navigation infrastructure, flight path management, and technical and engineering services outside of its statutory monopoly. In most cases, Airways faces little competition for the provision of these additional services.

14. The Civil Aviation Amendment Act 1992 provides for removal of all or part of the monopoly by Order in Council (through the repeal of all or part of section 99). Given that this option had not been exercised in the 27 years since the 1992 Amendment Act was enacted, the Civil Aviation Bill exposure draft did not carry over this mechanism. Submissions on the exposure draft, discussed later in this paper advocated for its retention.

[1] State-Owned Enterprises Act 1986, section 4.

Airways is not subject to Part 4 of the Commerce Act 1986

15. Unlike airports, and some natural monopolies, Airways is not regulated as a monopoly under the Commerce Act. In addition, as a State-owned enterprise, Treasury has focused on its commercial return, rather than the usual monitoring undertaken of fee and funding reviews of crown entities that provide public services, i.e. the funding review is not required to go to Cabinet and Airways is not required to work with a monitoring agency to test its efficiency and effectiveness.

Part A: We have some concerns about Airways' incentives and approach

16. This section outlines Ministry concerns about whether the existing ownership and regulatory incentives are strong enough to ensure Airways' consistently supports the broader range of civil aviation and Government outcomes.

Airways generally performs well, but we are beginning to have concerns

17. Generally speaking, Airways has performed its role well, and has contributed to a well-functioning civil aviation system that benefits New Zealand. It appears to comply with its obligations under its aviation document and the Civil Aviation Rules as they currently stand.

18. We are, however, beginning to have some concerns relating to Airways' current approach. These are summarised below. A key issue to consider is whether Airways has the right incentives through the SOE model to consistently support broad transport system outcomes.

Airways is increasingly focussed on new services and new technologies with concerns being raised about delivery of its core role

19. Airways is seeking to centralise its provision of air traffic services and provide some services remotely through use of digital towers, it is also developing new services in relation to drones, as set out in our previous briefing to you (OC190742 refers).

20. Concerns have been raised as to whether Airways' focus on new services and approach is leading to it maintaining sufficient staff, and focus, on its core business of provision of air navigation services.

21. Airlines, Airways' key customers, have raised concerns that Airways is not always able to provide air traffic control for the hours or locations required. There are also occasions where scheduled air traffic control is not able to be provided as planned, causing flights to be re-routed or cancelled. Recent examples include well publicised issues with staffing cover at Napier airport, and shut downs for a number of hours at Queenstown airport. This causes disruptions for airlines, airports, passengers and businesses.

22. CAA and the Ministry have also received concerns around air service control operators and issues with fatigue and capability, and potential safety concerns. CAA is investigating these concerns and keeps them under review.

Airways is looking to move out of some areas with potential impacts on broader aviation outcomes

23. Airways is increasingly looking to move out of areas where it believes it could achieve efficiencies and pass costs and responsibilities on to others.

24. For example, over the last few years Airways has been withdrawing from providing air navigation services at smaller airports that are not used by the major airlines which are its largest paying customers, or is now charging airports for its services [redacted]

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

25. Airways may also pull services out of more airports as Performance Based Navigation is implemented and fewer Ground-Based Navigation Aids are required. In some cases, the reduction of the provision of these services and aids, will have potentially negative flow-on effects for resilience, access, and regional connectivity as small airports find it difficult to pay for these services. It also impacts the general aviation community.

26. While it may make commercial sense for Airways to do this under the SOE model and to operate more efficiently, it causes other problems in the delivery of aviation and broader government outcomes. The Government is then asked to respond. This is part of the reason why you are considering financial support for smaller airports (OC190490 refers). This is at the same time as Government dividends from Airways are growing.

27. Airways is also currently considering whether it should continue providing airfield power and lighting services. In this case it is looking to free up capital for alternative purposes and move this burden onto airports. This has the potential to significantly increase costs for airports (and the Crown in relation to the joint venture airports), and will further exacerbate the concerns around financial viability of regional airports. This is also raising concerns for Airports as these are core air navigation services critical for safety. Airports are not used to providing, or maintaining, these services.

Airways may be showing signs of rent-seeking behaviour

28. Industry submissions on the exposure draft of the Civil Aviation Bill, submissions on the Airways charging review, and meetings with stakeholders, have raised issues with the way Airways sets charges.

29. As a monopoly provider, Airways is currently able to set charges as it wishes, following a consultation process. As with all monopoly consultation processes, airlines have no formal power to influence pricing methodology or the resulting prices, and no ability to decline to pay, other than reducing or withdrawing services.

30. In the last year, Airways consulted on changes which have resulted in significant price rises for Airways customers. Commencing in July 2019, the three year price period will see charges for Airways services increase by 21.4 percent.

31. There have also been concerns raised by airlines around the ability of Airways' to set prices to fund significant capital investment required for changing technology, even where they may not be users of, or providers of, that technology.

32. In its submission the Board of Airline Representatives in New Zealand (BARNZ) notes its concern that Airways is going to charge airlines $7.5 million over the next three years for its drone management and enforcement programme, rather than charging drone operators who are causing the cost. While some costs of drone integration can arguably be justified as a cost to the current aviation participants as it provides benefits to them, it is inconsistent with transport funding principles to get the current participants to pay most of the share.

Airways is not always working closely with the regulator to manage safety and security risks of new technology

33. Airways has embraced new technology and how it can provide efficiencies, improve safety outcomes, and manage the integration of manned aircraft with drones. Disruptive technologies provide many advantages but also can lead to significant safety and security risks that need to be managed. Regulatory regimes also often need to catch up with technology.

34. For example, Airways is seeking to centralise its provision of air traffic services and provide some services remotely through use of digital towers. Centralisation using new technology likely makes good business sense and does not necessarily reduce service quality or safety outcomes, and in fact may improve outcomes in some areas, but does entail some risks.

35. Airways is also developing new services in relation to drones, as set out in our previous briefing to you (OC190742 refers). Again, while some of these new services will provide benefits and, if undertaken well, improve outcomes, they also introduce safety and security risks that need to be managed. These new services also need to be put in the context of broader outcomes the Government is seeking to achieve in an unmanned traffic management system.

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

36. We are concerned that Airways has not been working as closely with CAA, as have other large innovators like [redacted] to ensure safety and security risks are managed as technology is developed. Airways frequently cites the fact that there is no specific regulation yet of digital towers or drone traffic management that requires it to engage. We are concerned that this may lead to safety and security risks not being managed appropriately, or Airways investing in technology that needs to be changed at a later date.

37. We also note that CAA has not always been as clear as it could be about its expectations and timing around engagement on new technology, but has written to Airways to put in place a new approach.

38. We will continue to work with Airways and CAA to encourage better joint working between our three agencies on these issues.

Existing incentives and oversight may not be adequate given the impact Airways can have on the aviation system

39. How Airways operates can have a significant impact on:

    a) the safety of participants in New Zealand's airspace;

    b) the security of the aviation network;

    c) the resilience of the aviation system and broader resilience and emergency management;

    d) the integration and operation of new participants into the system;

    e) other broader regional and national economic development objectives.

40. As highlighted above, we believe given the impact Airways can have on the aviation and innovation systems, there should be greater clarity on its role and accountability and monitoring of how it is delivering outcomes.

41. Airlines believe that clearer reporting, and monitoring, of service provision would provide greater transparency and deliver better outcomes in relation to the efficiency and effectiveness of the network as well as address concerns around the exercise of monopoly power in pricing decisions.

Part B: There are options that could be explored

42. There are a number of regulatory and governance options that could be explored to address the concerns about Airways. Some of these options could be progressed independently of each other, or all together.

Removing Airways' monopoly – or retaining ability to change its scope or remove it

43. One option would be to change or remove Airways' monopoly, which could enable other entities to provide air traffic services in competition with Airways.

44. It is unlikely that others would operate in areas where Airways is scaling back its activities, given many of these are not profitable, but there may be opportunities in the future in drone management or other areas where new technologies allow for competition.

45. The Civil Aviation Bill could retain a power to change or remove the Airways' monopoly in the future.

46. The decision not to carry over the power to change or remove Airways' monopoly into the Civil Aviation Bill was taken by the previous Government in 2016 [CAB-16-MIN-0568] and confirmed by the current Government earlier this year [CAB-19-MIN-0167]. The 2016 paper treated the change as a minor issue, the stated rationale being that it had been unused for more than 20 years, and there was no ongoing reason to retain it.

47. The current removable statutory monopoly appears to reflect that the necessary Civil Aviation Rules (Part 172) were not in place when the Civil Aviation Act was enacted in 1990. This meant that, in 1990, there was no mechanism for the certification of an alternative air traffic service and no safety requirements or standards set in rules. The power to change or remove the monopoly by Order in Council was created in 1992, once rule Part 172 had been developed.

48.

49.

Withheld under Section 9(2)(f)(iv) of the Official Information Act 1982

50. While this provides some future proofing to allow other operators to compete in the future, on its own it would not address the problems raised above with the current model for Airways.

Use existing ownership levers to influence Airways' focus

51. The Crown, through its ownership of Airways, has mechanisms to influence its behaviour within the State-owned enterprises system:

    51.1. It could change its dividend policy and use other accountability mechanisms (such as through commenting on the Airways Statement of Intent and appointments to the board) to promote a focus on Airways' core business.

    51.2. It could purchase non commercial public good services such as lighting from Airways.

52. You could potentially write to the shareholding Ministers to outline some of these options. However, the formal ownership levers for State-owned enterprises are, intentionally, focussed on financial performance rather than achieving public policy outcomes, so the Crown has generally been reluctant to use these levers.

53. The model instead relies on the regulatory system in which the enterprise operates in (in this case the civil aviation regulatory system) to ensure its incentives are aligned with civil aviation outcomes.

54. The purchase of non-commercial public good services from Airways would also be contingent on new initiatives funding being prioritised through the budget process.

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[redacted]

55. Airways is unusual amongst State-owned enterprises. A few State-owned enterprises play regulatory-related roles in other regulatory systems (e.g. Transpower New Zealand Limited is the national electricity grid operator, and KiwiRail is the system operator for the national rail network). However, Airways' safety-critical role in the aviation system is different in kind to the mixed roles of these other entities. In this context, relying almost entirely on the civil aviation regulatory system to incentivise the right behaviours within Airways over time is a big ask, and is in our view not the best model.

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56. [redacted]

Review Civil Aviation Rules and Airways' aviation document conditions

57. There may be scope to make better use of the existing levers under the Civil Aviation Act and, if there are undesirable limitations, to adjust these levers through the Civil Aviation Bill, in order to ensure that Airways is required to meet service and performance levels required for a safe air traffic control system.

Next steps

58. We are currently working with Treasury to clarify the role Airways plays in the aviation system, what outcomes the Government wants from the entity, and what the best options are to deliver these. We will keep you briefed on this work as it evolves, but would like to complete this work with Treasury prior to Christmas. If a change is recommended to the crown entity form, we would need to seek agreement of Ministers and make any changes in the Civil Aviation Bill.

Withheld under Section 9(2)(a) of the Official Information Act 1982

[redacted]

Kirstie Hewlett
Deputy Chief Executive, Regulatory and Data

MINISTER'S SIGNATURE:

DATE: 6.11.19

Ministry of Transport
TE MANATŪ WAKA

Document 3

9 February 2021

OC210078

Hon Michael Wood
Minister of Transport

Action required by:
Thursday, 11 February 2021

AIR NAVIGATION SERVICES AND REGIONAL CONNECTIVITY

Purpose

This briefing discusses the provision of aviation infrastructure and services needed to support air navigation in New Zealand. It outlines current issues with air navigation provision, as well as opportunities to ensure that suitable services continue to be provided. The briefing also outlines some issues with regional air connectivity.

Key points

Air Navigation Services

- Air travel contributes significantly to economic prosperity. Air Navigation services are critical to the safe operation of the aviation system and a national modern air navigation system is required to suppo t the economic activity.
- Developments in aviation technology in many fields are opening the door to new opportunities for efficiency and safety improvements, including the emergence of drones which are enabling the public to participate directly in the aviation system.
- The modernisation of the airspace and air navigation system in New Zealand will improve the efficiency of air traffic movements, allow more accurate navigation, reduce reliance on ground-based systems, improve communications and increase availability of information for more effective decision-making. These changes will result in reduced operating costs and improved aviation safety.
- A number of challenges and opportunities have arisen with the current air navigation services. These include
    - issues with the regulatory settings which have been compounded by COVID-19
    - new technology challenges and opportunities within the system
    - system funding issues
    - drone integration and the rise of emerging technologies will change the way in which air navigation is regulated and managed
    - whether the air navigation network is as efficient as it can be.

- New Zealand needs an economically viable, safe and innovative air and space ecosystem which enables all users to operate seamlessly.

- Given the current issues with the air navigation system, a review should be undertaken of navigation and aircraft surveillance, regulatory, funding and institutional settings. The review will involve all parties in the sector and should be first principles and broad in scope to also consider more broadly issues around integration of air space and how this could impact on current settings.

Regional air connectivity

- Good regional air connectivity facilitates the movement of people and freight across the aviation system and provides connections with other transport modes. In addition to the regions served, it benefits the nation as a whole, as well as other parts of the aviation sector.

- Smaller airports face costs that cannot be met commercially. It is often difficult for smaller airports to sustain themselves, and maintain essential airport infrastructure, from airport fees and charges or small ratepayer bases.

- Reductions in air services, or airport closures, would reduce regional resilience, reduce the access those communities have to essential services, including medical services, as well as to social and economic opportunities.

- Many other countries ensure regional air connectivity by directly or indirectly subsidising remote airports or air services. These subsidies can be considerable, and are justified as providing services that are essential for connectivity.

- In the previous term, Cabinet noted a proposal that the Crown establish a regional air connectivity fund to support airports that are not commercially viable to undertake necessary capital investment and ensure the continued provision of air services.

- Cabinet invited the Minister of Transport to put in a budget bid in Budget 2020 for a regional air connectivity fund. The budget bid was unsuccessful.

- There is an inter-relationship between the regional connectivity issues and the air navigation issues, in particular, air navigation funding settings. We recommend you carry out a review of air navigation, and then re-assess the scope and size of any regional connectivity fund, before putting in a bid for a regional air connectivity fund again.

Recommendations

We recommend you:

1	**agree** to discuss this briefing with officials	Yes / No
2	**agree** to discuss the issues raised in this briefing with the Minister for State-Owned Enterprises	Yes / No

[redacted] Withheld under Section 9(2)(a) of the Official Information Act

Tom Forster
Manager, Economic Regulation

...../...../.....

Hon Michael Wood
Minister of Transport

...../...../.....

Minister's office to complete: ☐ Approved ☐ Declined

☐ Seen by Minister ☐ Not seen by Minister

☐ Overtaken by events

Comments

Contacts

Name	Telephone	First contact
Kirstie Hewlett, Deputy Chief Executive	[redacted]	✓
Tom Forster, Manager Economic Regulation	[redacted]	

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AIR NAVIGATION SERVICES AND REGIONAL CONNECTIVITY

PART A: Air Navigation in New Zealand

Background

Outcomes of Air Navigation

1 Air navigation is the planning of a route, recording of progress on a route, and the control of movement until an aircraft reaches its destination. Pilots navigate under Visual Flight Rules (VFR) which require a pilot to be able to see outside the cockpit, to control aircraft altitude, navigation and to avoid obstacles. There are set limits around how far a pilot must be able to see and the distance from clouds. A pilot operating under VFR will use visual observation, reference to navigational aids (charts, GPS, radio). Pilots also operate under Instrument Flight Rules (IFR) using instruments including GPS, and radio navigation aids such as beacons, or as directed by air traffic control.

2 There is currently a segmentation of space into controlled space (managed by air traffic management systems), uncontrolled airspace, and at the highest level outer space/high altitudes.

3 Effective air navigation is critical to the effective operation of New Zealand's aviation system. New Zealand needs an air navigation system which:

a) Ensures the safety of aviation participants and people on the ground;

b) Is secure, i.e. cannot be interfered wi h;

c) Is resilient and can be used to support emergency incident management;

d) Allows for the integration and operation of new participants and technology into the system to enable innovation;

e) Supports broader regional and national economic development objectives; and

f) Supports integration of our air navigation system into the international setting (i.e. we have the largest air traffic oceanic air system in the world and we need to seamlessly connect with our neighbours and conform to international standards and requirements.

4 There are a range of agencies which perform a role in air navigation.

The Civil Aviation Authority (CAA) is the safety regulator

5 The Civil Aviation Act 1990 (the Act) controls the access, functions, powers and duties of participants in the civil aviation system. It also empowers the Minister of Transport, the Governor General and, in emergencies, the Director of Civil Aviation to make Civil Aviation Rules (CARs) to ensure that all participants operate safely.

6 CAA is designated by the Minister of Transport as the Airspace Authority and is responsible for the regulatory control and management of New Zealand airspace. New Zealand is also responsible for a large area of international airspace covering the southern South Pacific and the Auckland Oceanic Flight Information Region (FIR).

7 CAR Part 71 empowers the Director to designate and classify airspace within the territorial limits of New Zealand, and airspace for which New Zealand has accepted responsibility under international civil aviation agreements. At present this covers the Auckland Oceanic Flight Information Region and the New Zealand Flight Information Region. The Director may also restrict aviation activity by the designation of special use airspace.

8 Where the Director of Civil Aviation has determined that a portion of airspace requires an air traffic control service, it is designated as controlled airspace to protect FIR routes and procedures. Special use airspace can also be designated for a number of purposes, e.g. facilitation of police operations, search and rescue operations, and major public events.

9 The CAA plays a key role in implementing the National Airspace and Air Navigation Plan which sets a pathway to modernise all aspects of our aviation system and position it for the future. This includes the development of rules and advisory circulars.

Airways is a State-owned enterprise

10 Airways Corporation of New Zealand (Airways) is the State-owned enterprise (SOE) that operates key parts of New Zealand's air navigation system as a statutory monopoly under the Act.

11 As a SOE, Airways' principal statutory objective is to operate as a successful business and, to this end, to be:

11.1 as profitable and efficient as comparable businesses that are not owned by the Crown

11.2 a good employer

11.3 an organisation that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates and by endeavouring to accommodate or encourage these when able to do so.[1]

12 As a State-owned enterprise, the Ministry does not have a formal monitoring role over Airways. As the Minister of Transport, you have no formal responsibility to influence how Airways operates.

13 Instead, Airways is monitored by the Treasury. Its shareholding ministers are the Minister of Finance and Minister of State-owned enterprises. Treasury see its role is to provide ownership, performance and governance advice to shareholding Ministers. On Treasury advice Shareholding Ministers have included objectives in relation to ensuring aircraft and passengers reach their destination safely in Letters of Expectation. [redacted] It also sets dividend policy expectations for commercial performance and return on investment.

Withheld under Section 9(2)(g)(i) of the Official Information Act 1982

14 Treasury believes that if Airways performs its role as an efficient and safe Air Traffic Management Service then dividends will follow. We do not believe that these two things are necessarily tied together, i.e. [redacted]

Withheld under Section 9(2)(g)(i) of the Official Information Act 1982

[1] State-Owned Enterprises Act 1986, section 4.

Withheld under Section 9(2)(g)(i) of the Official Information Act 1982

[redacted]

15 Airways, as the holder of an aviation document, can be required to meet requirements and provide services that align with the Act and rules made under it, in the same way as other aviation system participants including pilots, airlines and airports. The CAA monitors Airways compliance with its aviation document. This is largely limited to ensuring safe operation of air services in compliance with the document, which is a relatively narrow ambit. It does not relate to broader aviation system objectives.

Airways has a statutory monopoly for parts of its business

16 Airways' statutory monopoly is established through section 99 of the Act, which provides that Airways is the only person entitled to provide area control services, approach control services or flight information services. The monopoly does not apply to *aerodrome* control services or *aerodrome* flight information services.

17 Essentially, Airways has a statutory monopoly on air traffic control services and the provision of information intended for the safe and efficient conduct of flights, *except* in the vicinity of an aerodrome.

18 Airways provides additional aviation services such as air navigation infrastructure (airport control towers and visual aide services), flight path management, and technical and engineering services outside of its statutory monopoly to main trunk and some attended aerodromes via commercial contracts.

19 Airways leverages its portfolio of commercial business (training, Aeropath, digital products and aviation services), including increasing investment in drone air navigation, to provide services to the international aviation industry. It has created a number of innovative products and its commercial business is growing and returning higher dividends.

20 Airways, like other aviation participants has been hard hit by COVID-19, as a reduction in passenger volumes has affected the number of services it can charge against. To support Airways through this the Aviation Relief package and Crown funding has been provided [redacted]

Withheld under Section 9(2)(b)(ii), 9(2)(i) and 9(s)(j) of the Official Information Act 1982

Airways pricing process

21 Airways calculates the revenue required to operate for three year period at each airport (including en route services), and based on forecast flights, sets its prices to recover the revenue to meet the costs of providing its services, including cost of capital. It consults with the sector on its proposed pricing.

22 Unlike airports, and some natural monopolies, Airways is not regulated as a monopoly under the Commerce Act 1986. Nor does it have the other checks and balances of other government regulatory monopolies, i.e. it the funding review is not required to go to Cabinet and it is not required to work with its monitoring agency on efficiency and effectiveness of its pricing model. This means as there are no other providers of air navigation services in New Zealand participants are effectively price takers.

The role of aerodrome operators in the air navigation system

23 Aerodrome operators ensure the provision of the necessary infrastructure and facilities for safe and efficient aircraft operations, balancing the needs of aerodrome users.

24 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.

25 The management and use of airspace in the vicinity of and at aerodromes can also impact on the efficiency of aerodrome operations. Aerodromes accordingly play a role in system decisions and in coordination affecting their operation.

The Ministry of Transport's role in air navigation

26 As part of its regulatory stewardship role, the Ministry has to ensure that New Zealand's airspace and air navigation system remain future-proof to ensure the safe, efficient movement of air traffic.

27 The Ministry developed New Zealand's National Airspace Policy with the CAA which was issued in 2012. The Policy sets out principles for the classification and design of airspace, the funding of air traffic management and air navigation services, and the resilience of the airspace system.

28 The Policy also set the framework for the CAA, in collaboration with the aviation sector, to develop the National Airspace and Air Navigation Plan, which is a guidance document approved by Cabinet in early 2014. The plan sets a direction to modernise New Zealand's aviation system, incorporating new and emerging technology into the aviation system under the New Southern Sky programme.

The role of the Ministry of Business, Innovation and Employment (MBIE) in the air navigation system

29 The New Zealand Space Agency (NZSA) sits within MBIE, making MBIE the lead government agency for space policy, regulation and sector development. MBIE administers the regulatory regime applicable to space activities set in the Outer Space and High-altitude Activities Act 2017 (OSHAA). The OSHAA regulates — through licences or permits — launches into outer space, launch facilities, high-altitude vehicles (HAVs) and payloads.

30 The space regulatory regime supports the growth of a safe, responsible and secure space industry that meets the international obligations set in the international space treaties and manages any liability arising from these obligations as a launching state.

31 With respect to launches, temporary restricted or special use airspace must be created around the spacecraft or high altitude vehicles as they go through New Zealand airspace. Air traffic controllers must protect this airspace from other aircraft using airspace separation procedures, and minimise the impact the launch operations may have on other airspace users. For this to occur, the NZSA must consult and coordinate with the CAA about aviation safety including, without limitation, the need for danger areas, restricted areas, and notices to airmen, as well as with Airways about any air traffic control requirements.

Issues and Opportunities raised with Air Navigation in New Zealand

There are issues with the Regulatory Settings….

32 The Civil Aviation Act has an air navigation system that was based on European regulatory models. As outlined above, it provides for a statutory monopoly for provision of air traffic management (ATM). However, it works on the premise that

there can be competition for other air navigation services. This does occur in Europe where in some countries there are multiple air service providers.

33 [redacted]

Withheld under Section 9(2)(g)(i) and 9(2)(f)(iv) of the Official Information Act 1982

34 [redacted] Any competitor for services also would need to engage with the Airways air traffic management system, which Airways is highly incentivised to protect as it derives its commercial benefit from it. This means that the barriers to any competitor entering this market are high and to date there has been no competition for services.

35 This causes the potential for monopoly and pricing behaviour (see below), and also means that if Airways reduces the services it provides it can be difficult to fill the gap.

36 Over its lifetime, Airways' commercial focus has generated some innovative products and services, while also providing a national air navigation network with low cost to airports and other users. In the recent past Airways has been reviewing its network, seeking to carry out activities which it believes it has comparative advantage for, moving out of others where it does not, and looking to make its air navigation network more cost effective and efficient. It has also been seeking to remove what it has seen as cross-subsidisation of some of its fee payers to activities they do not see benefits from.

37 While many of the things that Airways are doing are sensible for its business and the SOE model, given the issues outlined above, it is causing some issues in the system.

38 For example, Airways has historically owned power and lighting equipment at airports. This equipment includes airfield and taxiway lighting, underground cabling in the runways and taxiways, and lighting control systems. Airways charges the airports fees associated with the costs of owning and maintaining these assets. [redacted]

Withheld under Section 9(2)(b)(ii), 9(2)(i) and 9(2)(j) of the Official Information Act 1982

39 Airways is currently looking to move out of the provision of lighting at aerodromes as it believes aerodromes are better able to carry out this activity. Some larger airports may see this as an opportunity to provide these services but are still concerned around working out a safe transition, for some smaller airports they do not have the skills to manage, and replace in some cases aging assets, and could be suddenly faced with large costs many cannot afford.

40 Airways has also sought to remove, or recover, the costs of air navigation at smaller aerodromes. This change in services also increases costs, as affected airports must now pay Airways the full cost of these services or forego them (which could affect reliability or safety). In some cases, the reduction of the provision of these services and aids, will have potentially negative flow-on effects for resilience, access, and regional connectivity as small airports find it difficult to pay for these services. It also impacts the general aviation community. See regional connectivity discussed below.

41 Stakeholders have raised concerns that while Airways is taking these actions its dividend payment to Government grows. They believe that money Airways makes from its commercial activities as a result of its monopoly should be re-invested in

supporting an air navigation system to address these issues rather than being paid to the Government.

…which have been compounded by COVID-19

42 COVID-19 has had a significant impact on the aviation sector and most international airlines have ceased flying, or significantly reduced services, to New Zealand. Airways has a pricing model that drives how it charges for its services. According to this model, the traffic volume is the main driver of costs.

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

43 As a result of the uncertainty of its future revenue, Airways found itself in a negative cash flow situation and was likely to remain so for the foreseeable future. However, the Government provided Airways with [redacted] of financial support from the Aviation Relief Package and other Crown funding.[2]

44 [redacted]

Withheld under Section 9(2)(g)(i) and 9(2)(b)(ii) of the Official Information Act 1982

45 Airways believes that other jurisdictions with aerodromes the size of some in New Zealand operate without full air traffic management services and that the current air traffic management in New Zealand could be stream-lined and more efficient, and still operate safely. It notes that other uncontrolled aerodromes in New Zealand that have no Airways service operate effectively (including Kerikeri, Taupo, Whangarei and Timaru airports).

46 Responding to its shareholder expectations, and aligned with its view it can find alternatives that are more appropriate to the current and expected levels of traffic, Airways has proposed to cease providing the same level of air traffic control services at Hawke's Bay, Gisborne, New Plymouth, Rotorua and Invercargill airports. The aerodrome flight information services provided at the Kapiti Airport and Milford Sound Piopiotahi Aerodrome are also proposed to be withdrawn. The locations under review are those where air traffic had been low even before the COVID-19 outbreak.

47 Aerodromes serving aircraft of certain sizes are required to be certificated under CAR Part 139. Once certificated CAR 139.113 requires an aerodrome operator, when required by the Director of Civil Aviation, to ensure the delivery of:

- an aerodrome flight information service (AFIS); or
- an aerodrome control service (ACS); or
- both

48 Change management, in the context of aerodrome operations, is provided for under Part 139. Certificate holders are required to monitor operations and conduct an "aeronautical study"[3] where significant changes may affect the safety of aerodrome operations.

[2] This funding was to provide resources for Airways to operate through the downturn, enabling it to support airline customers through suspension of the air traffic services charge.

[3] An aeronautical study is a tool used to review aerodrome and airspace processes and procedures to ensure that safety criteria in place are appropriate. The goal of risk management in an aeronautical study is to identify risks, and take appropriate action to minimise risk as much as is reasonably practicable

49 The aerodrome operator must conduct the aeronautical study before the significant change if practicable, or as soon as possible after the change, and provide the results to the Director.

50 This requirement links the results of the aeronautical study with the Director's power to require AFIS and ACS at the relevant aerodrome.

51 If Airways decides to permanently withdraw its services at any of the seven aerodromes, under CAR Part 172, it has to provide 90 days' notice to the Director of its intention to do so. It also needs to provide a summary of factors it considered when making that decision.

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

52 [redacted]

53 If the Director determines that a service should be provided in the interests of safety, the aerodrome operator must ensure that the service is provided.

54 On 22 June 2020, Airways formally advised the CAA that it will be withdrawing services from:

- Kapiti on 10 September 2020;
- Rotorua on 17 September 2020; and
- Milford Sound on 30 November 2020.

55 However, Airways has agreed to work with these airports to maintain services until the aeronautical study process has been completed, and then to consider options.

56 All the seven affected airports have been undertaking aeronautical studies which will be assessed by the Director to determine the level of service required at the airports.

57 If the Director determines that either AFIS or ACS is required, then the affected airport must procure the services from a provider. In New Zealand Airways is the only provider of such service, so if it does not provide the service, for some airports it may be difficult to procure air traffic management services. For example, Milford aerodrome which is managed by the Ministry, has unique geographical features which are likely to require flight management services, and which it would be difficult to find another provider to transition to, and provide, the service.

58 If airport operators are unable to reach agreement with Airways for the provision of the service, the Director can place limitations on the numbers and type of activity that could occur when large passenger aircraft are flying into and from an airport. Such actions can help provide a commensurate level of safety for aircraft that operate to those aerodromes, but at the cost of limiting aircraft movements.

59 The CAA anticipate such moves will not be welcomed by the general aviation community users as it will constrain their activities; however, the focus will be on maintaining an appropriate level of assurance around ongoing safe regional connectivity ahead of final decision-making.

60 Airways has given assurances that it will not withdraw from any of the seven aerodromes until the aeronautical studies have been completed. Milford and

Invercargill are the only two airports to date that have completed their studies which are under assessment by the CAA.

New Technology challenges and opportunities

61 Satellite navigation now allows aircraft positions to be pinpointed to within a few metres, radar networks can be replaced by aircraft based surveillance systems, digital and satellite communication is developing, information is being digitised and integrated and air traffic control systems now allow more predictive aircraft management.

62 Developments in aviation technology in many fields are opening the door to new opportunities for efficiency safety and emissions improvements, including the emergence of drones which are enabling the public to participate directly in the aviation system.

63 To enable this, the air navigation systems that are in place need to also change to enable the benefits of changing technology to be realised. New regulations are required as well as changes are necessary in who, and how the system is regulated.

64 Airways has been looking to move towards new technology to deliver these outcomes. It sees technology like digital towers and digital flight information services (Digital AFIS) as the future, and could replace air traffic management services in some aerodromes. However, many of these new technologies are nascent, not yet proven in different situations, and not yet approved by the regulator.

65 The CAA is looking to increase its capability and capacity to approve these technologies in relation to safety and security. Approving new technologies can be resource intensive, and require a mix of regulatory and different technology skills. At times there have been concern that CAA has been slow to respond. The CAA is currently increasing its capability and capacity to approve these technologies in relation to safety and security.

66 While the move to new technology will provide benefits, care needs to be taken by Airways not to move so fast in developing and implementing technologies to address cost pressures, improve efficiency of the network and to develop commercial innovation opportunities, that safety and security is risked. The Government also has a role to play in this by the signals it sends to Airways around new technology and commercial return.

67 Digital towers have several potential advantages. The sensors and digital analysis used can provide enhancements unavailable to controllers relying on the naked eye or binoculars, such as better visibility in poor weather, zoomable images and AI-controlled views. Digital towers are cheaper to provide and can replace ageing physical towers. Because they can be staffed remotely, a single virtual tower can serve several airports. This could enable an increase in service and safety at low traffic airports or at low traffic parts of the day, which might currently be uncontrolled. Multiple remote towers could also be available to take over in emergencies, increasing resilience.

68 Although a number of digital towers are operating in Europe, and they are planned for larger airports such as London City Airport and Singapore's Changi Airport, they are a relatively new technology and their implications for safety are not fully known. At both Changi and London these technologies will augment and not replace existing technology in the medium term. In Sweden, where they were first introduced, in 2015, virtual towers have been seen as a way to bring safer air traffic control to small and

isolated airports. Airways is hoping for similar benefits here, but it could be that isolated airports are still in need of a person on the ground, and any resilience benefits might be undermined by vulnerable data connections to the virtual control tower.

69 New Zealand's first digital tower was planned for Invercargill Airport. However, this project has been suspended because of the COVID-19 crisis and early technological issues.

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

70 [redacted] in Scandinavia where Digital AFIS has only recently been deployed it has been in relatively simple environments and not some of the more complex environments New Zealand aerodromes operate in.

71 There are also questions about who, and how, we should pay for new technologies. While things like Digital AFIS may provide the future for air navigation at smaller aerodromes, due to COVID-19 Airways currently does not have sufficient funding to set up and pay for the new technology, this would need to be provided by smaller airports, many of which would have difficultly also paying for upfront cost. A similar issue has been faced in relation to the transition to global navigation satellite systems (GNSS).

72 Modern aviation depends heavily on GNSS for positioning information that enables accurate and efficient navigation and surveillance of aircraft. The New Southern Sky programme gives a clear direction on incorporating new and emerging technologies into the aviation system to ensure the safe, cohesive, efficient and collaborative management of New Zealand's airspace and air navigation to 2023.

73 The modernisation of airspace and air navigation in New Zealand will involve improved efficiency of air traffic movements, more accurate navigation, reduced reliance on ground based systems, and improved communications. Increased information availability will also enable more effective decision making. Together, these changes will mean lower operating costs and improved aviation safety.

74 Chief among these benefits is performance-based navigation (PBN), which enables aircraft to use the most efficient routes and approaches, rather than flying point-to-point between fixed ground-based navigation aids (GBNAs).

75 Airways is committed to a fairly comprehensive nationwide network of navigation aids; however, it has become apparent that this will not be enough to support some services that use helicopters, including emergency medical services.

76 A nationwide GBNA network is also required in case satellite positioning is lost and aircraft need to be recovered safely to the ground. They would also be needed to maintain core air services if there were a sustained GPS outage. Although most of the time the navigation aids will not be used, every flight made using instruments needs to have a plan to use them if necessary, so every such flight depends on them.

77 Airways, CAA and the Ministry of Transport have been working on delivery of the NSS. One of the remaining questions though is who, and how, the minimum GBNA should be paid for.

Concerns the focus on new technology and commercial opportunities is impacting current operation

78 Airlines, Airways' key customers, have raised concerns that Airways is not always able to provide air traffic control for the hours or locations required and is investing in future, rather than current, infrastructure improvement (e.g. sweating the assets). There are also occasions where scheduled air traffic control is not able to be provided as planned, causing flights to be re-routed or cancelled.

79 With the uncertainty around the provision of air control services at regional airports, a number of controllers have resigned and Airways is having trouble recruiting replacements. This has recently affected Kapiti Airport where there have been a number of closures of the airport over the last two months. Other recent examples include issues with staffing cover at Napier airport, and shut downs for a number of hours at Queenstown airport. This causes disruptions for airlines, airports, passengers and businesses.

80 The CAA and the Ministry have also received concerns around air service control operators and issues with fatigue and capability, and potential safety concerns. CAA investigates these concerns and keeps them under rev ew

81 Given funding pressures and the need to invest in future technology, it is recognised that Airways is in a tricky position where it needs to achieve a fine balance between being able to make necessary new investment and putting sufficient investment into current infrastructure and capacity without over- investing in resilience and driving costs into fee payers.

Funding of the System Issues

82 As stated above, Airways consults and sets prices on the revenue required to operate its services and is not subject to the Commerce Act and is not required to go to Cabinet and it is not required to work with its monitoring agency on efficiency and effectiveness of its pricing model, and as there are not other providers of air navigation services in New Zealand participants are effectively price takers.

83 Industry submissions on the exposure draft of the Civil Aviation Bill, submissions on the Airways charging review, and meetings with stakeholders, have raised issues with the way Airways sets charges and whether there are sufficient checks and balances in the system.

84 As a monopoly provider, Airways is currently able to set charges as it wishes, following a consultation process. As with all monopoly consultation processes, airlines have no formal power to influence pricing methodology or the resulting prices, and no ability to decline to pay, other than reducing or withdrawing services.

85 There have been concerns raised by airlines around the ability of Airways' to set prices to fund significant capital investment required for changing technology, even where they may not be users of, or providers of, that technology.

86 As stated above, Airways has also tried to respond to cross-subsidisation where airlines were paying for services which they do not get the benefit from. This is arguably a more transparent and equitable way of funding, and is supported by larger airlines particularly given current financial pressures arising from COVID-19.

87 However, smaller airlines and airports are concerned this has resulted in significant affordability issues for the provision of air navigation and believe that money Airways makes from its commercial activities as a result of its monopoly should be re-invested

in supporting an air navigation system to address these issues, rather than paid to the Government. It also raises questions around whether it should be Airways that funds issues of affordability in the system or this should be resolved by Crown funding as suggested by the Regional Air Connectivity Fund proposal below.

88 More broadly these issues drive at the questions around what the appropriate regulatory, funding and institutional settings should be for air navigation in New Zealand and how do we pay for, and achieve, a system that delivers multiple outcomes and funds new technology.

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

[redacted]

Withheld under Section 9(2)(b)(ii) of the Official Information Act 1982

Is the Air Navigation network as efficient as it can be?

91 Beyond Airways, there are also other aviation players that believe that the current air navigation system could be more efficient.

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92 Questions have been raised around the number of airports, the type of services provided and [redacted] has also raised issues around whether the current air navigation is too complex and could be simplified in ways that supports facilitation and emissions reduction.

Drone integration and the rise of emerging technologies will change the way in which air navigation is regulated and managed

93 Supporting a thriving, innovative and safe drone sector is a well established Government priority contained in *Taking Flight*.[4] *Taking Flight* aims to provide the sector with a clear understanding of the Government's role, and its strategic direction and priority areas, to achieve the safe integration of drones into the aviation and broader transport systems.

94 Drones are rapidly emerging technologies operating in the aviation system. Drones come in various forms and can perform a wide variety of activities never envisioned for manned aircraft. Drone technology has quickly developed and drones are now used for many purposes, e.g. in emergencies, surveying and mapping, agriculture, inspecting and maintaining rail and energy infrastructure, as well as delivering goods and carrying people.

95 Unlike manned aviation, drones often operate at low altitudes. Many future use-cases envisage drones operating over urban or suburban environments whereas others are looking into drones operating at high altitude, i.e. above Flight level 600 (approximately 60,000 feet) and the highest upper limit of controlled airspace under the Civil Aviation Act 1990. The increasing demand for more innovative drone use

[4] In 2019, the Government released its Drone Integration Paper, Taking Flight: An Aviation System for the Automated Age. The paper can be found here - https://www.beehive.govt.nz/sites/default/files/2019-07/Taking%20Flight%20an%20aviation%20system%20for%20the%20automated%20age.pdf.

has created new challenges, and careful planning will be needed to manage issues such as noise pollution, visual disturbance, and environmental impacts.

96 New infrastructure, digital and physical, is required to provide effective air navigation services for drones and the other aviation participants. If drone use is to increase, drones must be able to communicate with both manned and unmanned aircraft while operating in both uncontrolled and controlled airspace. Any new national traffic management system for drones must be compatible with international standards, best practices, and other global and regional plans, as much as practicable while taking into account any unique aspects of airspace and air traffic management in New Zealand. Also, new digital systems should be interoperable with other air control systems so as to avoid collisions, ensure the smooth flow of drone traffic, identify unauthorised drones or use of airspace, and avoid social disturbance.

97 The expected increase in the number of aviation participants and ongoing technological progress will put extra pressure on airspace allocation and access in New Zealand. This situation is compounded by the need to fairly share the airspace with existing aviation users. Steps need to be taken now to ensure that in the future, we have the tools necessary to manage airspace efficiently and effectively, and in a safe and secure way.

98 Unmanned Traffic Management systems (UTM) are being developed and tested overseas to support the integration of drones into air traffic systems. These systems are comprised of a range of digital services and bring together information from different sources to enable manned and unmanned aircraft to operate efficiently, safely and securely in any class of airspace.

99 UTM would deliver on the Government's strategy – it would help unlock the potential of drone technology and realise the targeted economic, social and innovative benefits. UTM is unlikely to be viable in the short term as a commercial proposition, because it will be relatively expensive to develop and the industry is in an early growth phase. It therefore needs to be treated as a 'lead investment' (i.e. we need to build it before there is demand for it) and develop the policy and regulation around it.

100 How we consider a UTM system and the integration with ATM will be a key part of the Ministry's work. At the same time, consideration needs to be given to the increasing blurring of controlled and uncontrolled airspace with space activities.

101 Considering whether the current system settings (regulatory, funding and institutional) best enable this work and technology is critical.

A first principles approach is required

We propose that a Review be undertaken

102 Air Navigation services are critical to the safe operation of the aviation system and contribute significantly to New Zealand's economic prosperity. New Zealand needs an economically viable, safe and innovative air and space ecosystem which enables all users to operate seamlessly.

103 Given all of the issues above around the regulatory settings, new technologies, funding of the system, and integration of air space, stakeholders have questioned whether it is time to review the settings

104 We believe all parties Airways, other government agencies (e.g. the Ministry of Transport, CAA and MBIE), large and small airlines, unions, and the general aviation sector see issues in the system and opportunities for improvement.

The review could begin in late 2021 and be undertaken in consultation with all participants in the sector. The review should be first principles and broad in scope as it will also consider more broadly issues around integration of air space and how this could impact on current settings.

PART B: Regional Air Connectivity

Regional Air connectivity is important

There are many benefits that come along with regional air connectivity

105 New Zealanders expect transport infrastructure that gives them access to essential services and economic opportunities. For most of the country, roads provide good connectivity, and most freight is distributed by truck. Air connectivity complements these other forms of transport and most New Zealanders have a range of choices available to them.

106 Regional air connectivity coverage in New Zealand is good. Most communities are within 80 kilometres of an airport (shown by the circles on the map below), and most regions have at least one service to a major city as outlined in Figure 1.

107 Good regional air connectivity facilitates the movement of people and freight across the aviation system and provides connections with other transport modes. In addition to the regions served, it benefits the na ion as a whole, as well as other parts of the aviation sector.

108 Benefits to the country as a whole from good regional air connectivity include:

- economic benefits from having thriving regions
- economic network effects, including economies of scale and scope due to more connections between consumers and producers
- increased efficiency, as it can be cheaper for people to travel for services (such as specialised or complex medical services) than to replicate the services locally
- increased connectivity and opportunities for domestic travel and trade
- resilience to emergencies and disasters
- a viable general aviation sector (private and small commercial operators, including tourism and agricultural services)
- national cultural cohesion

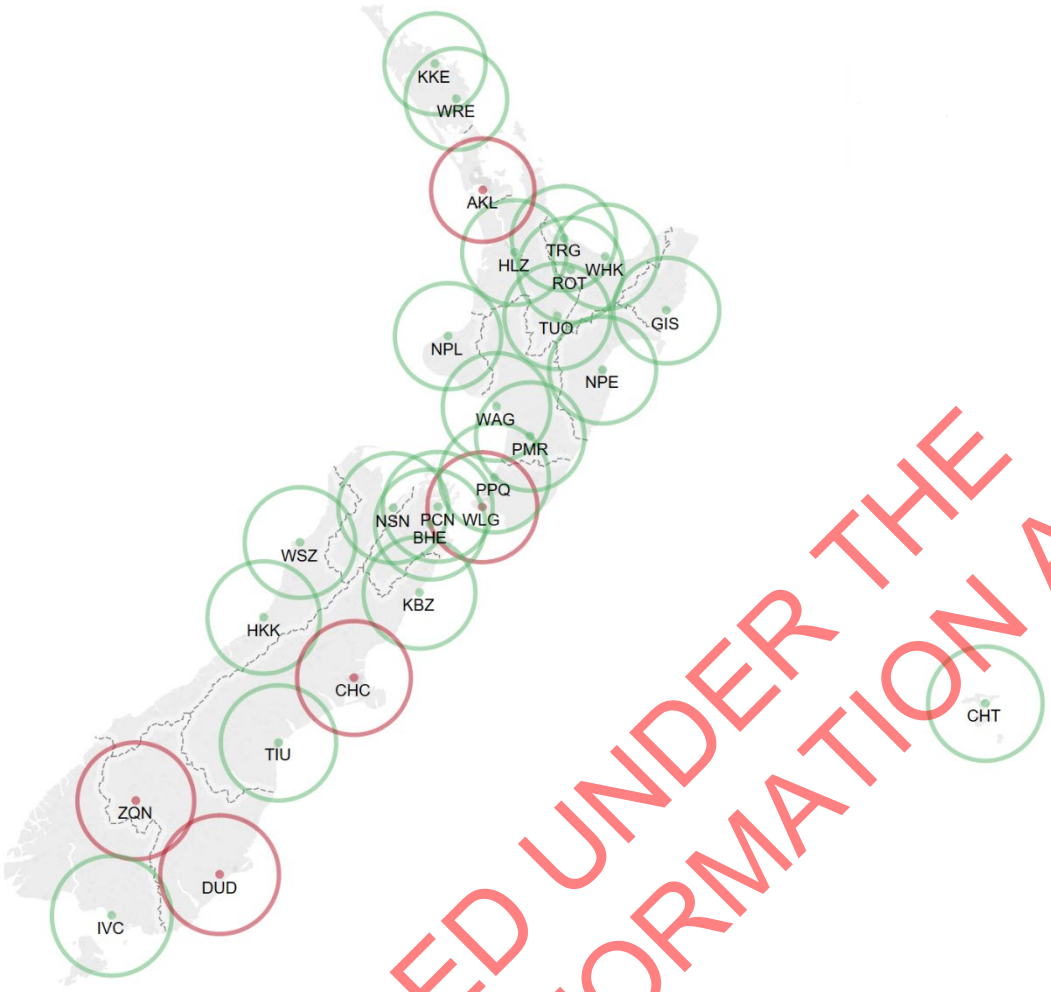

Figure 1: Scheduled services in New Zealand

The Challenges of maintaining Regional Air Connectivity

Smaller Airports face costs that cannot be met commercially

109 Airports have high costs – especially infrastructure costs – including large periodic bills for runway reseals and terminal upgrades. Many of these costs are independent of an airport's size, passenger volumes or revenue.

110 It is often difficult for smaller airports to sustain themselves from airport fees and charges or small ratepayer bases. They may have a relatively small number of users, but the minimum costs of maintaining essential airport infrastructure such as terminals, runways and navigational procedures are independent of traffic volumes.

111 For this reason maintenance is often deferred. This puts these airports at risk of deterioration, lower levels of service and ultimately risk of closure.

Technology changes and regulatory requirements may add to costs over time

112 A portion of an airport's costs is also fixed by having to meet regulatory requirements for airport facilities.

113 Airports also have to accommodate new technology. These costs will be a challenge even for medium-sized airports. As satellite navigation becomes the norm for aviation, some of these airports may need new instrument flight procedures. These are properly surveyed approaches, designed for efficiency and safety, which must be regularly reviewed and updated. The Aircraft Owners and Pilots Association of New Zealand has identified around 30 regional aerodromes that they believe should have instrument flight procedures as part of the national aviation infrastructure.

114 We agree that many of these aerodromes should have these instrument flight procedures to enable continued operation of the general aviation community (both public and private), and for emergency and resilience purposes.

115 In 2016 Airways withdrew the instrument flight procedures for Kaikoura airport because it could not find anyone to pay for the services. However, during the response to the 2016 Kaikoura earthquake it quickly became apparent that the service was required and Airways had to reinstate it, but there were time delays in the effective response to the incident.

116 You have agreed to seek Cabinet agreement to make changes to section 9(1) of the Land Transport Management Act to allow for money paid into the National Land Transport Fund by aircraft that use petrol to be used to provide for safety services such as instrument flight procedures.

117 As outlined above, a nationwide GBNA network is also required in case satellite positioning is lost and aircraft need to be recovered safely to the ground. These GBNAs are usually required at regional airports. One of the remaining questions though is who and how the minimum GBNA should be paid for.

Airways has withdrawn provision of air navigation infrastructure and air services from some airports

118 As outlined earlier, over the last few years Airways has been withdrawing from providing air navigation services at smaller airports that are not used by its biggest paying customers, or is now charging airports for its services. [redacted]

Withheld under Section 9(2)(b)(ii), 9(2)(i) and 9(2)(j) of the Official Information Act 1982

119 Those airports must now either pay Airways or other providers the full cost of these services or forego them (which could affect reliability or safety).

It is difficult for some regional airports to meet these costs

120 Smaller airports have few sources of revenue other than charging landing fees and fees for other aeronautical services to aircraft operators (for many there are only smaller numbers of airlines operating which make it hard to spread costs against)[5]. Regional air services also tend to be commercially marginal. As a result, airports are often unable to recover their full costs. Undercharging airlines amounts to an indirect subsidy, in many cases drawn from the region's ratepayers.

121 This is an ongoing problem. Airports that are not recovering their costs or are making only small profits are underinvesting in maintenance, so facilities are deteriorating.

122 NZ Airports, the association representing 31 New Zealand airports, suggests that airports with fewer than 200,000 passengers per year are unlikely to be commercially sustainable. On this basis, it identifies 12 airports that it regards as at risk[6]. These airports handle approximately 3 percent of departing domestic passengers, but in some cases provide significant social and economic benefit to their regions.

123 The Ministry of Transport manages the Crown interest in five joint venture airports, all of which are considered at risk by NZ Airports, and which comprise a representative range of sizes below 200,000 passengers. The revenue and expenditure of these airports confirm that small airports tend to operate at a loss. The joint venture model also provides inequities where some marginal airports get support, and others do not.

124 The Office of the Auditor-General has also expressed concern about the precarious viability of smaller airports, especially given their importance to the economic vitality and connectivity of the communities they serve. In 2016 it reviewed 19 airports and found that small airports were making a loss or small profits, and that they struggle to fund maintenance or improvements.

The Government considered Regional Air Connectivity in the last term

Cabinet considered the establishment of a regional air connectivity fund

125 Reductions in air services, or airport closures, would reduce the access those communities have to essential services, including medical services, as well as to social and economic opportunities. It would also affect the general aviation community that uses the airport. And it would reduce regional resilience.

126 In the previous term, Cabinet noted the proposal that the Crown establish a regional air connectivity fund to support airports that are not commercially viable to undertake necessary capital investment and ensure the continued provision of air services.

127 Many other countries ensure regional air connectivity by directly or indirectly subsidising remote airports or air services. These subsidies can be considerable, and are justified as providing services that are essential for connectivity.

[5] Even so, these revenues can be so low that some joint venture airports make more from grazing farm animals than from aeronautical services.

[6] Chatham Island, Gisborne, Hokitika, Kaitaia, Kerikeri, Masterton, Taupō, Timaru, Westport, Whakatāne, Whanganui, Whangarei.

128 The EU allows members of the European Economic Area to subsidise infrastructure for airports with less than 3 million passengers annually, but for small airports they may only subsidise operating costs.

129 Norway and Spain have a publicly owned operator for most airports, so allow cross-subsidisation of airports that are not commercially viable. Like New Zealand, Norway has only a few profitable airports – most of the revenue to support the network comes from just four airports. Spain also directly subsidises island residents, with 50% off fares.

130 In the United States, the Airport Improvement Program uses aviation taxes to fund small airports. Air services are also subsidised for airports that would not otherwise receive scheduled services.

131 Canada funds airports if they are owned by the Crown or if they are considered remote. The performance of funded airports is assessed by whether they are open all year, stay safe and maintain their certification.

132 In Australia, the Remote Air Service Subsidy assists 366 communities of under 200 people. Services are provided by seven air operators. The federal government in Australia has recently announced $100 million in funding for upgrades at regional airports.

133 The Ministry estimated that between $10 to $12 million was required per year for three years, with a review at this point and a potentially smaller amount in outyears, should be made available to subsidise regional air connectivity to provide the necessary long-term confidence to the regions and the sector.

134 Crown funding was considered the most appropriate funding source given many of the benefits of adequate regional connectivity were a public good. Cabinet invited the Minister of Transport to put in a Budget bid for the provision of the regional air connectivity fund. This was unsuccessful in Budget 2020.

135 Doing nothing to support regional air connectivity, or responding only to crises (for example the Westport airport sea wall falling into the sea), fail as sustainable approaches. The biggest costs facing airports – for maintaining their facilities – are foreseeable, as is their revenue potential. Costs relating to changing conditions – such as in regulations, technology, coastal erosion or patterns of use – are more difficult to plan for, but should be expected over the long term. Smaller airports cannot raise enough revenue from their operations to meet their costs – and this is an intrinsic feature of their business.

What were the features of the regional air connectivity fund proposal considered by Cabinet?

136 The subsidy scheme was a rolling contestable fund, focussed on the safe and effective operation of regional airports and air services. Initially its focus would be on access to essential services, and regional emergency management and resilience, given the significant challenges currently facing smaller regional airports.

137 Funding would be available for critical infrastructure to keep airports operating. The major costs facing airports are runway resurfacing or reconfiguration, maintaining terminals and other buildings, and navigation procedures. Other costs include the provision, renewal or refurbishment of precision approach lighting, lit wind socks, taxiway lights, runway lights, apron lights, remote switching for lights, stand-by power, and navigation beacons or support for satellite navigation.

138 The fund would also be available to directly subsidise air services, if gaps are identified in their provision. That is, where sustainable air services could not be

provided commercially, and where services are necessary to deliver access and resilience objectives. Some of this is currently being provided through the Essential Transport Connectivity fund set up during the COVID-19 pandemic response.

139 The fund would be available to subsidise airports that receive or could receive scheduled air services, or which are regularly used by hospital transfer or charter flights, or which are important to the general aviation sector.

140 Applicants for a subsidy would need to meet clear criteria. For example, an airport would need to show that funding was required to:

140.1 ensure affordable and convenient access to important services and opportunities

140.2 provide resilience for communities as part of the regional or national transport system and in emergency and civil defence response support.

141 Applications could be made from airports, or airports and regional councils. The value or necessity of services would be assessed against criteria including: the number of people affected, travel time to access such amenities as hospitals or professional services, the frequency and quality of other transport options, cost, the use of the airport by the general aviation community, and its role in provision of emergency services. There should be a high threshold for approval.

142 The necessity of services would be considered in light of the fact that, from a network perspective, the number and location of airports in New Zealand is not the result of strategic design. Some are quite close together (as shown in the map on page 17) or serve relatively small communities. Some communities might be more cost-effectively served by another option – such as a bus service or other form of transport to a different airport, or improvements in land transport infrastructure.

143 Putting in place the fund, was also to include a review of the joint venture model under which the Crown co-owns five airports. The aim would be to provide a more transparent, equitable and suitable approach.

Next Steps

144 There is an inter-relationship between the regional connectivity issues and the air navigation issues, in particular, air navigation funding settings. We recommend you carry out a review of air navigation, and then re-assess the scope and size of any regional connectivity fund, before putting in a bid for a regional air connectivity fund again.

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145 [redacted] and considers that if Cabinet has specific objectives for intervention, such as maintaining resilience, then more targeted and tailored policy interventions might be more appropriate and effective. That providing a general subsidy could undermine incentives to operate efficiently and is unlikely to solve the longer-term funding issues facing regional airports.

146 We believe the Treasury view does not adequately take into the account the fact the fund is not a general subsidy, but that it provides an efficient process for funding of airports and airlines only when a high threshold is met, i.e. there is no other easy transport options and is necessary for resilience, access to medical services etc. In addition, most other overseas jurisdictions recognise that there will always be a need for some Government support for regional aviation services providing essential services.