DMAPS Submission and Survey Results Summary Paper

Wellington International Airport Ltd

20 November 2024

Introduction and background

Wellington Airport has undertaken public consultation following changes made to flight paths for jet aircraft departing Wellington to the north in December 2022, and also sought information on the impact of those changes via a random survey.

The changes are part of a system called Divergent Missed Approach Protection System (DMAPS). DMAPS was initiated and developed by Airways, New Zealand's air navigation service provider. The flight paths for Wellington Airport to implement DMAPS were approved by Wellington Airport and the Civil Aviation Authority.

In general, the flight plan changes have meant fewer departures over Newlands and more over Khandallah and Broadmeadows.

Noise monitors were installed by Wellington Airport and Airways at the request of local residents in 2023. Following this, the airport asked Airways, who design and maintain flightpaths, to develop alternative options for public consultation.

Feedback was sought in the public consultation on four options:

1) Maintaining the current flight paths

2) Changing the northerly route for jet departures before 7am to fly between Horokiwi and Korokoro

3) Changing the northerly route for jet departures to a similar route used before December 2022 over Newlands Ridge

4) Any other proposal raised through this engagement process.

This document is a detailed summary of the feedback received.

Number of responses and how we analysed them

In total we received 2579 submissions, excluding the survey completed by Curia Market Research:

- 2534 online
- 39 written
- Six emailed

As well as individual submissions, we also received submissions from several organisations: Korokoro Environment Group, Airways, Airports NZ, the International Air Transport

Association (IATA) and the Board of Airlines Representatives of New Zealand (BARNZ) representing airlines operating in Wellington. These are included in the total number above.

We then manually combined the ranking preferences from written and emailed submissions together with the SurveyMonkey ranking preferences into one Microsoft excel file which enabled us to analyse and rank the preferences. Microsoft excel was also used to organise and analyse submissions by suburb.

Every submission received was read in full by Wellington Airport's external relations manager. Our reading and analysis showed noise, safety and efficiency were three of the top reasons given for preferences.

As an additional check, we also used AI programme Microsoft Copilot to review the submissions, after we had separated them into different appropriate groupings. This confirmed that our analysis of key themes from responses was accurate.[1]

Summary of responses[2] [3]

Option	First Rank Votes	Second Rank Votes	Third Rank Votes	Fourth Rank Votes	Total	Average Favour Score
Maintaining the current flight paths	49.78%	15.71%	16.89%	17.62%	2463	2.97
	1226	387	416	434		
Changing the northerly route for jet departures before 7am to fly between Horokiwi and Korokoro	24.26%	44.22%	20.41%	11.12%	2465	2.81
	598	1090	503	274		
Changing the northerly route for jet departures to a similar route used before December 2022 over Newlands Ridge	23.24%	30.13%	36.86%	9.77%	2466	2.67
	573	743	909	241		
An alternative option (please specify below)	3.55%	9.58%	25.52%	61.35%	2453	1.55
	87	235	626	1505		

Option One (status quo) was the most popular choice as first preference (49.78%), more than twice the level of Options Two (24.26%) or Three (23.24%).

[1] This was done by separating responses into different groupings (such as "support for Option A" – which were all responses where Option A was ranked first, or all of the responses from a particular suburb regardless of which option they supported). These responses were collated into individual word documents.
We then used Copilot to search and summarise each of these documents, search them for the top five most frequent themes (reasons for and against) and provide details of those themes. We also used it to provide a numerical figure of how frequently those themes came up in responses.
The output of these tasks confirmed noise issues, safety and efficiency as three of the top reasons given for preferences, consistent with our own reading and analysis. These tasks were all within the capacity and normal use of Copilot.

[2] Note the number of votes here is less than the total number of submissions received because a number of submissions did not rank their preferences.

[3] Average favour score gives a first place ranking a value of four, second place value of three, and so on. The higher the number, the more support for that option.

How we consulted

The public consultation officially began on 20 September when a media release was issued and a dedicated page on Wellington Airport's website went live. This page included a survey form and a wide range of background material including noise modelling reports.

The consultation was publicised through a Wellington Airport media release which was covered in local media including *The Post* and *Independent Herald*. It was also shared by community groups including the Korokoro community facebook group, members of whom carried out their own letterdrop around the suburb to publicise the consultation on 19th October.

Feedback was collected by asking the public to complete a short online survey form or respond by email or by written response to our postal address. Respondents were asked to rank the four options in order of preference, and follow-up questions asked as follows:

- Outline an alternative option (only if the respondent has one)
- The reasons for that preference
- Any further comments or suggestions[4]
- Name and street address

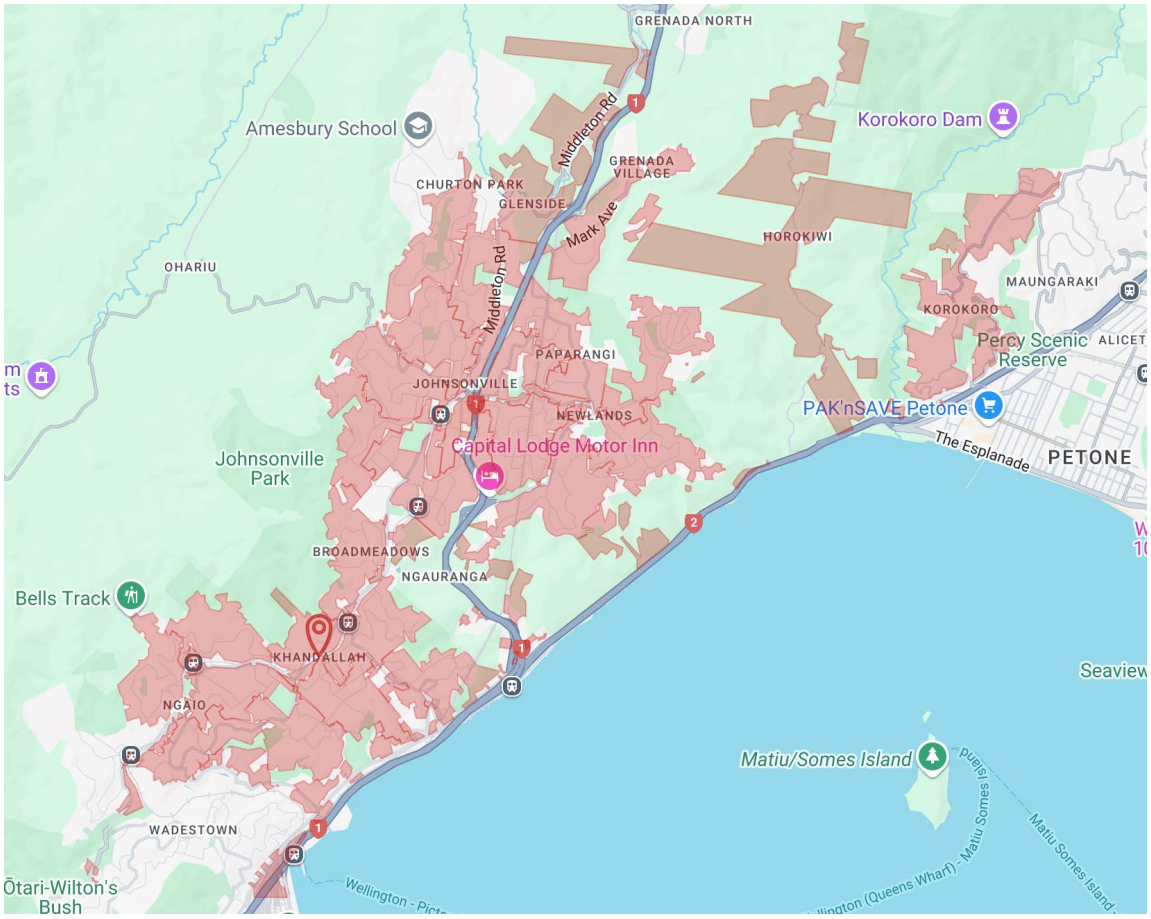
A physical brochure explaining the options was mailed to 20,000 households across the areas marked on the map below in red. This commenced in the week beginning Monday 23rd September and delivery took approximately two weeks to reach the majority of areas. This was delivered by New Zealand Post and arranged by Reach NZ, a printing and distribution company.

The brochure was 12 pages long and entitled "Flight path changes that may affect your suburb: Public consultation." It included:

- Background to how and why DMAPS flight path changes were made
- Diagrams and maps showing the change from December 2022
- Detailed descriptions of the three options including maps, noise modelling and monitoring
- Benefits and downsides of each option including safety, efficiency, sustainability and noise impacts
- Q&A
- A QR code and link to the webpage with the online survey form
- A cut-out page and postal address details for those who preferred to send in a physical submission.

A full copy of the brochure is included as appendix six.

[4] This was an open-ended question. According to SurveyMonkey responses are limited to 20,000 characters.



The initial closing date for submissions was 5pm Friday 11th October but this was extended several times because of delivery issues.

Firstly, we were contacted by a small number of Khandallah residents in the second week of October (beginning Monday 7th) who had just received their brochures and wanted more time. As a result, we extended the closing period until 5pm Friday 18th October. The submission page on our website was updated accordingly and we advised local group Plane Sense Wellington.

Then on Friday October 11th we were contacted by a resident of Korokoro who advised she and her neighbours had not received the brochure. After investigating further and receiving conflicting reports from our distribution company, we then hand-delivered a mixture of letters and brochures to every house in Korokoro ourselves on October 22nd and extended the deadline to midnight Tuesday October 29th.

Following this, some residents asked for a further extension to ensure two weeks between receiving this material and consultation closing. We agreed to this and therefore a closing date for submissions from Korokoro of midnight Tuesday 5th November.

In addition to this survey, as an additional tool to gauge views we also commissioned a survey of 500 randomly selected people from across these suburbs which was carried out by Curia Market Research. The results of this are summarised further below with the full survey attached as appendix one.

Common themes in responses

Across all submissions there were common themes. Noise was the most common reason given for preferences. In general, each suburb preferred not to have flights overhead. Comments to this effect include:

"I'd prefer less flights over my neighbourhood."

"I really don't want the noise pollution where I live."

"Please don't fly over Khandallah."

"I live in Korokoro and do NOT want airplanes flying over my house early in the morning."

"I live in Newlands and don't want the noise."

A small number of responses were the exception to this. For example, in Khandallah around 17% of respondents ranked the status quo as their first option:

"Although I live in Ngaio/Khandallah (and am annoyed by the noise), the status quo makes sense."

"I love watching the planes fly over our house."

There were often widely varying responses from people in the same suburbs, same streets and even immediate neighbours. Some respondents submitted that they are extremely affected by noise while others have not noticed or do not mind.

Other common themes across all preferences included:

- Impact on birdlife: every suburb expressed concern about the impact of aircraft noise on birdlife (although a smaller number of submissions disputed any impact)
- Property values: numerous submissions expressed concerned on the impact of aircraft noise on house values, either the current flightpaths or any potential change.

A note on the sample comments

Note that the sample comments throughout this document have been carefully weighted to match the overall sentiment of responses.

For example, in the section on Option One we have provided 30 supportive comments and 15 opposed, with this ratio of 2:1 reflecting that 65% of respondents ranked this option as either first or second preference, while 34% ranked it third or fourth. We have repeated this approach throughout the document to ensure a representative balance of comments.

Feedback on Option One - Status Quo

First rank votes: 49.78% (1226)
Second rank votes: 15.71% (387)
Third rank votes 16.89% (489)

Fourth rank votes: 17.62% (434)

The most common reasons for supporting this option were:
- A desire to avoid flight paths over another suburb
- Safety
- It affects the least number of people

The most common reasons against this option were current noise impacts on some Khandallah, Broadmeadow, Johnsonville and Ngaio residents, many of whom say it is extremely loud and disruptive. Lack of public consultation over the December 2022 change was also a common complaint.

Examples of comments in favour

“Option 1 affects less people, is safer and more efficient. It makes sense.”

“I believe the safest option should be key, ahead of all other concerns. The current flight routes affect the smallest number of people, and provide the safest option for departing aircraft.”

“This option effects less people and saves time and money and don't think shifting flight path to Newlands instead of Khandallah makes it fair on Newlands people.”

“Seems safest and best for everyone.”

“Safety first, at a very insignificant inconvenience. I live in Khandallah, and the noise is just part of the background.

“I am happy with the current flight paths... The minor noise, which lasts less than a minute for each flight, is just one of the fun things about living in Broadmeadows

“I live in Newlands and am very pleased with the current flight paths. It has lessened the noise over Newlands quite significantly. For years we have had the majority of flights overhead.”

“There is no reason to change it apart from complaints from residents. That in itself if not a reason as you’ll just get complaints from others if it changes.”

“I think it’s highly irresponsible and doesn’t make any sense to make a change that will have a negative impact on safety, efficiency and sustainability variables. ... It also doesn’t make sense to change to an option that’s going to impact a greater number of people than the status quo.”

“I live in Khandallah and think the current flight path is fine. The noise doesn’t bother me at all. The most direct route has less environmental impact and I think that should be our deciding factor.”

“Current flight path seems to be OK. Occasionally it feels like some flights are very low over the northern suburbs but it's short lived and you get used to it.”

“The current flight paths are objectively better, both in terms of least number of people possibly impacted and in minimising the carbon emissions from flights. There is no practical reason to change to a less efficient flight path that affects more people.”

“I love hearing the planes flying over and it's only for a few minutes if that.”

“Newlands had it all for too long, it's time for others to deal with it too instead of all Newlands.”

“It makes the most sense, environmental cost savings, safety and affects the least amount of people.”

“The 2022 change was done by profession people in the interests of safety, environment, travel efficiencies. I think they know best.”

“Any flight path presents a disruption but the status quo presents the least disruption and I'm not prepared to say anyone else should have to put up with it.”

“It affects the smallest amount of people, and it is the safest and most efficient option.”

“There are safety and timing benefits to the status quo, and overall fewest people are affected.”

“I fly as a passenger and I want the safest for pilots and ATC. I live under current flight path and the noise is unnoticeable.”

“Flight safety is my main consideration and I support whatever the airlines and airport deem is best.”

“Please consider everyone in your decision, not just the vocal few.”

“If it has improved safety, etc, keep it the way it is. Changing it will just put it over other people's houses instead without any other benefits.”

“There were very good reasons for changing the flight paths to option 1. Safety being paramount but also the other very important criteria noted under the benefits of this option.”

“Safer, sustainability and affects the least people. Also, I live in Khandallah and have noticed no increase in noise since the changes.”

“Option 1 is the safest most efficient and sustainable option, best for the environment and affecting the least number of residents. We live directly under the new flight path in Johnsonville and over the last year cannot say that the noise is so loud or long that it causes us any concern.”

“If it's safer and more efficient, that has to be the priority.”

“We live in the suburbs of a city and are therefore not entitled to perfect quiet all the time, especially when we have the privilege of having a centrally located airport.”

“No issue with the current status quo flight paths. We live in Broadmeadows and we definitely noticed the change in flight path in 2022 - however we understand that the planes

will have to fly over these northern suburbs so people are going to be affected no matter what and there is no real win-win here. Whatever the best option is for efficiency, safety, and sustainability should take highest priority."

"I don't think the flight path should be changed back because some people complain more than others."

Examples of comments against

"DMAPS has completely changed our lives. The noise is horrendous. We can't open windows or talk on the phone. Our lives are ruined. Unless you are living under the DMAPS route you don't understand how bad it is."

"We are elderly and becoming hard of hearing but the sound of the planes coming over is very very disturbing. Our little granddaughter is frightened when she stays with us and the house shakes."

"We have a child with sensory processing disorder and the plane noise is adding incredible stress to our lives....and to have this happen when we purposefully moved to be away from airplane noise is maddening."

"One of the reasons for buying our house was it was in a quiet area and our sleep would not be disturbed by outside noise. This has changed with the change in flight routes."

"The noise over Khandallah is incredibly disturbing. Wakes family up most mornings and prevents us working from home."

"The noise starts at 6am through to 10pm , 7 days a week. The noise is too loud and it is destroying any opportunity to live and rest in peace. It is so loud, if the flight path isn't changed, I will leave the area as I can no longer cope with my sleep being disturbed."

"I live on the hills in Khandallah and even sleeping with earplugs in, the international flights in the early morning are incredibly loud."

"My father suffers from an incurable brain injury that makes him prone to fatigue and, in extreme cases, collapse. The noise from the aeroplanes routinely wakes him up and disrupts his sleep patterns, exacerbating his sense of fatigue and susceptibility to collapse and harm."

"The noise level is significantly louder than previously and is causing sleep disturbance. As a new Mum, this has been quite distressing and further compromises any quality of sleep."

"We have lived in our property for nearly 30 years and suddenly we are living under a noisy flight path. It is incredibly disappointing that no consultation whatsoever has taken place before the change."

"Stop being dickheads."

"It's impossible to live with the noise, can't sleep a full night, can't watch the TV, can't have a phone or a personal conversation without waiting for a plane to pass, just to have to pause again a few min later. The noise is unsettling and shakes the whole house."

“The noise from the new flight path has left myself and my family in a constant state of anxiety. We have not slept a full night since the change it has caused medical issues and we are not able to cope with the noise.”

“Noise levels are insane, whole house shakes when a flight passes over.”

“Having lived in Newlands prior to December 2022, and living in Khandallah now, I found the aircraft noise then less intrusive (and back then I had small children, so was particularly sensitive to such things).”

Feedback on Option Two - Changing the northerly route for jet departures before 7am to fly between Horokiwi and Korokoro

First rank votes: 24.26% (598)
Second rank votes: 44.22% (1090)
Third rank votes 20.41% (503)
Fourth rank votes: 11.12% (274)

The most common reason for supporting this option was that it provides a balance between the operational and safety benefits of DMAPS while reducing the noise impact on Khandallah residents at a time when aircraft noise is most disruptive.

However, there was a very strong negative response from the residents of Horokiwi and especially Korokoro (289 submissions from just 540 households, the highest response ratio of any suburb) against this option. Residents noted this is a quiet area with nature reserves and native birds, and that people had consciously chosen to move here for that reason.

Examples of comments in support

“I think the status quo is broadly right and makes sense but I do feel for people having their sleep disrupted before 7am so a modification to send those flights through a less populated area makes sense.”

“We’ve really struggled since having a baby with the flights between 6-7am occurring immediately overhead. Flights after 7 aren’t a problem (in fact, we enjoy plane spotting).”

“The early morning jet flights are very loud, intrusive and disruptive to sleep so moving them to a less densely populated area makes sense.”

“It addresses the worst of the noise impact for residents under the current flightpath, while only slightly affecting travel times and environmental outcomes.”

“It seems there are efficiency and sustainability benefits to DMAPS, and changing early morning flight paths would go some way to alleviating the worst of the noise issues that residents face in the early morning.”

“Minimal change but maintaining safety. I live in the affected area but feel that we should not return to pre 2022 as this just pushes the issue onto others while not maintaining the safety aspects of DMAPS.”

“Yes, Horokiwi people will be affected but for many fewer flights per day than Khandallah etc. It's a reasonable trade off.”

“Currently the 6am departures wake me up most mornings. I’d ideally like to sleep till at least 7am. It’s costing me the equivalent of one night of sleep every week.”

“Option 2 (northerly route before 7am) is a good compromise between safety and the real nuisance of aircraft noise before 7am.”

“I think it’s a fair trade for more people to have a smaller noise impact than a smaller number of people have a pretty significant noise impact.”

“We live in Ngaio and the noise of the nearby overhead flights starting at 6am wakes us up most days. Changing the flight path between 6am and 7am seems a reasonable compromise for all parties.”

“Flying over a less populated area before 7am will give some relief to the people living under the current flight plan.”

“Diverting the small number of early morning departures over less populated areas seems like a good trade-off for reduced noise impact compared with the (slight) increase in distance (and thus fuel usage).”

“Biggest discomfort is early morning flights. Option #2 represents a fair compromise between status quo and the negative impacts of option #3 (reduced safety and efficiency).”

Examples of comments opposed

“Korokoro is a quiet suburb and part of our decision to live here was based on this, and enjoying the surrounding bush and wildlife that comes with that.”

“We live in Korokoro, next to the reserve, it's quite, full of native bird life. That's one of the best parts about the suburb, the quiet and birds. The jets overhead will ruin that and devalue our homes.”

“I dread to think how loud Jumbo jets will be at this time of morning almost every day. Makes us feel sick just thinking about it.”

“Having a special departure path for 6-7am is another thing for pilots or ATC to get wrong such as when a flight gets delayed past 7 - Not having that special case I'm sure is operationally simpler and safer.”

“The proposed alternate flight path between Horokiwi and Korokoro profoundly violates numerous nature reserves, and sabotages Wellington's, and New Zealand's, integrity and authenticity in actual conservation efforts.”

“Increased noise levels over a regional park should be avoided, as this would impact peoples enjoyment of natural sanctuary.”

“I believe that maintaining the existing flight paths are best. Changing to between Horokiwi and Korokoro appears like it would just spread the noise around other areas of Wellington.”

“Don’t want early morning noise over Korokoro.”

Reasons for preferring Option Three - Changing the northerly route for jet departures to a similar route used before December 2022 over Newlands Ridge

First rank votes: 23.24% (573)
Second rank votes: 30.13% (743)
Third rank votes 36.86% (909)
Fourth rank votes: 9.77% (241)

The most common reasons in favour of this option were current noise impacts on some Khandallah, Broadmeadows, Ngaio and Johnsonville residents, many of whom say it is extremely loud and disruptive.

Lack of public consultation over the December 2022 change was also a common complaint, and many residents note they did not expect aircraft noise when buying into the suburb.

Conversely, there was significant opposition from residents of Newlands to having aircraft redirected back to their suburb. Responses noted they already have many arrivals overhead and the burden should be shared.

Safety and environmental factors were also common reasons for opposing Option Three.

Examples of comments in favour

“The aircraft noise has changed my entire life and health condition negatively. it is unacceptable that in 2022 the flight path changed to my area and impacted on my life without any consultation.”

“People bought in Newlands expecting planes. People bought in Khandallah not expecting planes.”

“As residents under that flight path we are constantly woken by planes from 6am which go overhead all day and until late at night.”

“I live in Khandallah and we were not consulted before the 2022 route change.”

“Residents of the pre 2022 flight path areas (ie Newlands) knew what they had signed up for as the paths had been in place for 50 years.”

“It keeps us up at night and wakes us up early. It is impacting our sleep and therefore our mental health.”

“Natural justice and fairness. People buy houses in neighbourhoods based on known facts like flight paths, changing them unilaterally is totally unacceptable. Impacts on health and value of property.”

“The current noise levels and route are extremely disruptive to sleep and mental health, and interrupt work, phone calls, conversations, television viewing.”

“We are elderly and do not sleep well and these early flights going over our heads are deafeningly loud and prevent any further rest for us retired folk.”

“The planes are so close and loud they sound like they are only a few meters away. We are kept awake until midnight and then woken at 6am with multiple planes going by. We have spent a huge amount of money trying to reduce the noise we hear from the planes.”

“My chronic health issues are exasperated by the new flight path due to reduced sleep, as we are awoken daily by the 6am flights.”

“What you have done to us is cruel.”

Against

“I don't see why a different suburb should have the noise just so Khandallah residents have it more quiet.”

“I live in Newlands and flights are already very loud, reverting to pre 2022 would be unbearable.”

“Newlands already has all inbound flights when wind is from a southerly direction, which is why reverting to pre December 2022 is not acceptable!”

“DMAPS is the safest option, and most efficient. Safety and efficiency should be prioritised over some people experiencing slightly louder flight noises.”

“I live in Newlands and would prefer not to have the additional noise.”

“Because I live in Newlands, it is already quite loud, so any option that causes additional noise from the status quo, I would not be in favour of.”

“As a Khandallah resident I am all for improved safety, efficiency, and climate impact. I enjoy seeing the planes and the noise does not bother me at all, even when I hear the before 7am Australia flights… Safer, cheaper, and quicker flights are important to me and family.”

“Option 3 is less safe so shouldn't revert to pre DMAPS and would majorly affect my area (I remember all the plane noise from back then).”

“Newlands/Johnsonville residents already get all of the incoming traffic in Southerly winds, we don’t need the outgoing northerly traffic too.”

“Newlands & Paparangi residents already have enough planes flying overhead. Give them a break!”

“I live in Newlands and do not want any increase in flights over my house.”

“I live directly under the flight path in Newlands. I have noticed a dramatic reduction in noise between when I moved into my home in 2017 and what it currently is.”

Option Four - Other proposals raised

First rank votes: 3.55% (87)
Second rank votes: 9.58% (235)
Third rank votes 25.52% (626)
Fourth rank votes: 61.35% (1505)

By far the most common alternative suggestion was that aircraft should travel over water as far as possible and then head over the least populated areas. There were several hundred suggestions to this effect.

Other suggestions raised were:

- Spread all flight paths over a wider area
- Increase Wellington Airport's flight curfew (currently between 1am and 6am)
- Move Wellington Airport to a new location

Feedback by suburb

The table below lists first preferences of the top 10 suburbs by response, based on addresses given.

Suburb	**Number of responses (and as a % of suburb population)[5]**	**Option A 1st Preference**	**Option B 1st Preference**	**Option C 1st Preference**
Khandallah	536 (6%)	17.35%	27.05%	50.75%
Korokoro	289 (18%)	84.08%	6.23%	6.57%
Johnsonville	260 (2%)	38.08%	30.77%	21.54%
Newlands	259 (3%)	64.09%	19.69%	2.70%
Ngaio	175 (3%)	32.00%	32.00%	27.43%
Paparangi	159 (6%)	66.67%	23.15%	3.70%
Churton Park	108 (1%)	52.08%	32.29%	5.21%
Broadmeadows	96 (6%)	18.28%	26.88%	45.16%
Grenada Village	93 (5%)	75.00%	18.06%	2.78%
Maungaraki	72 (2%)	83.87%	8.06%	6.45%

In general, the majority of submissions from each suburb were opposed to flights over their area, however there is a notable minority in most areas who were not concerned. A selection of representative comments from different suburbs is below.

<u>Khandallah</u>

"It keeps us up at night and wakes us up early. It is impacting our sleep and therefore our mental health."

"You never consulted before changing it in 2022 which is illegal. The disruption to Khandallah residents at 6.05am every day is unbearable, particularly for parents of small children reliant on a good sleep."

[5] Suburb population taken from latest census data

“I live in Khandallah and have a toddler who enjoys seeing the planes! The sound doesn’t impact us at all. Rather we enjoy plane spotting.”

“Dreadful.”

“Intolerable.”

“We moved from Newlands to Johnsonville in 2023 - the noise of the planes here is far greater than it ever was in Newlands due to the way the sound seems to reverberate off the mountain.”

“I live in Khandallah and love having the planes fly overhead, it’s cool.”

“You literally cannot hold a conversation when planes are departing.”

“The flight path is currently pretty much directly over our house in Khandallah and early morning and evening flights are insanely loud and the house vibrates. At times it feels like you can almost touch the undercarriage.”

“I have lived in Khandallah for 10 years and plane noise is a 10 seconds thing that represents no issues at all.”

Newlands

“I live in Newlands and do not want increased noise again.”

“Newlands residents have had to put up flight paths for too long. It was past time that it should be shared with more suburbs.”

“I live in Newlands and am very pleased with the current flight paths. It has lessened the noise over Newlands quite significantly.”

“The original route and schedule negatively impacted by life and that of my family and neighbours affecting my sleep and therefore ability to work. The current changes have positively impacted quality of life in Newlands.”

“I do not think it would be fair to change the northerly route to fly over Newlands, affecting more residents, creating delays and inefficiencies, and reducing flight safety, just because affluent residents are complaining in other suburbs.”

“Newlands already gets enough noise pollution from planes landing and should not have to deal with planes taking off as well.”

Johnsonville

“The noise over Johnsonville West is unbearable.”

“I live in Johnsonville and I'm fine with the current situation. Option 3 (reverting) has too many downsides.”

“I live in Johnsonville and since the flight path change am now woken up flights.”

“As a Johnsonville resident I believe option 2 is best for Johnsonville. And the status quo is definitely preferable to a return of 2022 levels.”

“The flights over my place in Johnsonville are very loud before 7am and it is very disruptive to family life. If the flight path can be changed to disrupt fewer residences that is surely a no-brainer. It is incredibly disappointing that this change was made in the first place without consulting me and others seriously affected.”

“I like to see the planes fly over my place in Johnsonville. They look amazing. Please keep the current flight path as is.”

Broadmeadows

“Unbearable noise exposure in Broadmeadows, with felt health implications for my family, such as mental health, stress, distrubted working from home, reduced outdoor enjoyment, among many others.”

“Really disruptive due to the noise. We have double glazing and previously had no issues with aircraft noise waking us up or making it difficult to communicate whilst in our garden/ yard as a family. My children also complain about the noise.”

“Even though, as a Broadmeadows resident, the current flight path is more disruptive to me personally, I am in favour of the option which is most efficient, sustainable and safe. Given that all options require flight paths over residential areas, the safest, most efficient and sustainable option is obviously the best.”

“The early morning flights wake us all up every day, and have negatively and deleteriously affected the mental House of the whole household, so much so that my 13 year old is not able to attend school regularly due to poor sleep, and resultant headaches.”

Ngaio

“We live in Ngaio. The planes wake my household every morning at 6am. We'd like this to stop.”

“Because the changes since 2022 have severely affected our sleep, mental health, and my business. Our bird life in Ngaio has significantly decreased, it's really sad to see.”

“We live in Ngaio, supposedly one of the areas impacted by DMAPS. We’ve lived here for 20 years. The impact of DMAPS has been less than negligible. We have not noticed the change at all. Even if there was an impact on us, and there hasn’t been, we would still support any change that has the effect of making it safer to fly, reduces fuel burn and emissions, makes flying more efficient.”

“I live in Ngaio & the current flight path is oppressive, noisy & distracting. As a hospital shiftworker, I investigated the neighbourhood noise levels prior to buying my house in 2012. To now have planes fly directly over my house - and at times very low - is incredibly upsetting.”

“I’m in Ngaio and haven’t notice any flight noise.”

“Moved to Ngaio in Feb 2022 not knowing we would be under new path for aircraft. We are woken every morning by prop and jet aircraft at 6am.”

“We live in Ngaio and while planes fly overhead we can not see any problem with that. We enjoy seeing them fly over.”

Horokiwi

“The residents of Horokiwi have chosen to live where they are because it's quiet. Any change to flight paths is going to 'significantly' (Marshall Day Report) and potentially materially affect the quiet enjoyment of their location.”

“Horokiwi is idyllic and one of the few peaceful places in Wellington. Changing the flight plans would ruin the peace for residents in the morning and create noise disruptions to humans and wildlife. It will cause disruption for residents and stock as well at those times.”

Korokoro

“As a Korokoro resident, I am not keen on increased noise pollution.”

“As a resident of Korokoro - a peaceful, quiet, green suburb - I do not support having a route across our suburb in the early morning hours.”

“Keep the flight path as is. Korokoro has enough noise going on with boy racers at night along the motorway. Why change the flight path to add noise to the start of the day as well.”

“We live in Korokoro, next to the reserve, it's quite, full of native bird life. That's one of the best parts about the suburb, the quiet and birds. The jets overhead will ruin that and devalue our homes.”

“The people of Horokiwi and Korokoro move to these places because they are quiet and peaceful. The background noise is low and therefore any additional plane noise will be disproportionately felt in these rural and outer lying suburbs.”

Churton Park

“Can’t stand the planes flying over Churton park all day every day.”

“I live in Churton Park and appreciate the decrease in flights / engine noise over our suburb.”

“I live in Churton Park and am happy with the status quo.”

Survey of 500 randomly selected residents

In addition to the online survey, we also commissioned a survey of 500 randomly selected residents from across the northern suburbs. The aim of this was to capture a snapshot of opinion and give us an additional source of feedback.

This was carried out by Curia Market Research between late September and late October involving a random selection of phone numbers and a random selection from an internet panel. The results are summarised below with the full survey report attached as an appendix:

Have you noticed a change in aircraft noise since December 2022?

		Count	Col %
Noticed a change in aircraft noise	Yes	196	39%
	No	285	57%
	Unsure	19	4%
	Total	500	100%

39% of respondents have noticed a change in aircraft noise, and 57% have not.

		Area				
		CP/Glen Col %	Gren/Horo/Koro Col %	Newl/Ngau/Pap Col %	John/Broad/Ohariu Col %	Khan/Ngaio Col %
Noticed a change in aircraft noise	Yes	30%	25%	28%	45%	49%
	No	63%	71%	64%	53%	50%
	Unsure	6%	4%	8%	2%	1%
	Total	100%	100%	100%	100%	100%

Respondents around Johnsonville, Khandallah and Ngaio more likely to have noticed a change.

Has this change been positive, negative or neutral for you?

		Count	Col %
Impact of noise change	Positive	33	17%
	Neutral	93	47%
	Negative	70	36%
	Total	196	100%

Of those who have noticed a change, 36% say it has been negative, 17% positive and 47% neutral.

		Area				
		CP/Glen Col %	Gren/Horo/Koro Col %	Newl/Ngau/Pap Col %	John/Broad/Ohariu Col %	Khan/Ngaio Col %
Impact of noise change	Positive	28%	17%	22%	23%	4%

	Neutral	52%	67%	48%	44%	48%
	Negative	20%	17%	30%	34%	48%

Respondents from Khandallah and Ngaio most likely to say the change has been negative.

On a scale of 0 to 10, with 10 being the highest, how annoying has the change been?

	Mean	Percentile 25	Median	Percentile 75
How annoying noise change has been	6.9	5.0	7.0	8.0

The mean rating for annoyance for those who say it was negative is 6.9/10 and the median 7/10. A quarter of respondents said it was 5/10 or less and a quarter 8/10 or more.

Would you support flight paths changing to mean more flights over Newlands and fewer over Khandallah?

		Count	Col %
More flights over Newlands and fewer over Khandallah	Yes	196	39%
	No	156	31%
	Unsure	148	30%
	Total	500	100%

39% of respondents would support more flights over Newlands and less over Khandallah. 31% would not and 30% were unsure.

Would you support flights before 7am taking a different route over Horokiwi to avoid the northern suburbs?

		Count	Col %
Flights before 7am over Horokiwi	Yes	300	60%
	No	100	20%
	Unsure	100	20%
	Total	500	100%

A large 60% support flights before 7 am over Horokiwi, with only 20% opposed.

Industry submissions

Airways

Airways submitted firmly in favour of the status quo in their role as New Zealand's air navigation service provider and the instigator of DMAPS. They provided detailed technical information on the safety and efficiency benefits of the current system. In particular:

- Capacity at Wellington Airport has increased on an interim basis to 16 aircraft movements per hour and likely to 19 in future (a 45% gain)
- Major improvement in reported safety events
- Ground delays have reduced 80%
- Airborne delays also reduced saving $350,000 in operating costs

- Optimised flight paths mean aircraft distance flown has reduced by 28,000 kilometres per year
- 380 tonne reduction in CO2 emissions

They stated Option 2 *"..is a potentially safety-compromising option… Changing flight paths during specific periods of time heightens the risk of human error, and is generally avoided where practicable."*

Option Three *"…is the least acceptable of the options from a system-wide perspective, and the flow on effects of safety mitigation will result in significant inefficiencies for the Airport, airlines and passengers."*

International Air Transport Association (IATA)

The International Air Transport Association (IATA) is the global trade association for the world's airlines, including Air New Zealand and other foreign airlines who operate at Wellington Airport. They provided a brief submission noting:

"…The core focus for flight paths below 4,000ft should be to limit or reduce adverse effects on people. Above this flight level, environmental concerns (i.e. CO2 emissions) and flight path efficiency are deemed as being of increasing importance, relative to ground level impacts. It is IATA's understanding that the current jet flight paths meet these parameters."

Board of Airlines Representatives of New Zealand (BARNZ)

BARNZ represents 26 member airlines who operate in and out of New Zealand, including Air New Zealand, Qantas, Jetstar and Fiji Airways who operate at Wellington Airport.

BARNZ supports the current flightpaths, noting that:

"…safety and efficiency gains have been substantial…BARNZ would be concerned if changes were made such that these time, cost, and carbon efficiencies and safety improvements were lost or reduced. Safety concerns should be paramount in any consideration of change, and any unnecessary increase to carbon emissions should also be avoided."

NZ Airports

NZ Airports is the industry association for New Zealand's airports and related businesses. They submitted in support of Option One (status quo) noting it is the safest option and reduces the number of people negatively affected (highly annoyed or N65 events) in comparison to the pre-DMAPS flight paths, according to the Marshall Day report.

Appendixes

1: Curia Market Research poll of 500 northern suburb residents
2. Airways submission
3. IATA submission
4. BARNZ submission
5. NZ Airports submission
6. Wellington Airport consultation brochure

Appendix One: Curia Market Research poll of 500 northern suburb residents

WELLINGTON AIRPORT NOISE POLL
October 2024

CLIENT:	Wellington International Airport
POLL DATES:	Sunday September to Thursday 24 October 2024. The median response was collected on Thursday 24 October 2024.
TARGET POPULATION:	Adults living in the northern suburbs of Wellington City.
SAMPLE POPULATION:	Adults living in the northern suburbs of Wellington City who are contactable on a landline or mobile phone or via Internet panel.
SAMPLE SIZE:	500 respondents agreed to participate, 400 through phone dialing and 100 through an Internet panel.
SAMPLE SELECTION:	A random selection of 3,000 Wellington northern suburbs phone numbers and a random selection from the Internet panel.
WEIGHTING:	The results are unweighted.
SAMPLE ERROR:	Based on this sample of 500 respondents, the maximum sampling error (for a result of 50%) is +/- 4.5%, at the 95% confidence level.

Are you aware of public consultation happening on potential flight paths over the northern suburbs?

		Count	Col %
Aware of public consultation on flight paths	Yes	358	72%
	No	129	26%
	Unsure	13	3%

72% of respondents were aware of the public consultation on flight paths.

		Gender Female Col %	 Male Col %
Aware of public consultation on flight paths	Yes	78%	63%
	No	19%	34%
	Unsure	3%	3%

		Age Under 40 Col %	 40 to 60 Col %	 Over 60 Col %
Aware of public consultation on flight paths	Yes	63%	69%	80%
	No	34%	29%	17%
	Unsure	4%	2%	3%

		Area CP/Glen Col %	 Gren/Horo/Koro Col %	 Newl/Ngau/Pap Col %	 John/Broad/Ohariu Col %	 Khan/Ngaio Col %
Aware of public consultation on flight paths	Yes	66%	66%	60%	78%	76%
	No	31%	26%	38%	20%	21%
	Unsure	2%	8%	2%	2%	3%

Suburbs with small number of responses have been grouped with neighbourjng suburbs to allow larger sample sizes with smaller margins of error.

		Aware of public consultation on flight paths		
		Yes Row %	No Row %	Unsure Row %
Suburb	Broadmeadows	85%	9%	6%
	Churton Park	68%	29%	3%
	Glenside	49%	51%	0%
	Grenada	83%	18%	0%
	Horokiwi	0%	75%	25%
	Johnsonville	80%	18%	2%
	Khandallah	78%	21%	1%
	Korokoro	25%	50%	25%
	Newlands	59%	39%	3%
	Ngauranga	50%	50%	0%
	Ngaio	73%	22%	5%
	Ohariu	33%	67%	0%
	Paparangi	64%	36%	0%

Have you noticed a change in aircraft noise since December 2022?

		Count	Col %
Noticed a change in aircraft noise	Yes	196	39%
	No	285	57%
	Unsure	19	4%
	Total	500	100%

39% of respondents have noticed a change in aircraft noise, and 57% have not.

		Gender Female Col %	 Male Col %
Noticed a change in aircraft noise	Yes	42%	35%
	No	54%	61%
	Unsure	4%	4%
	Total	100%	100%

		Age Under 40 Col %	 40 to 60 Col %	 Over 60 Col %
Noticed a change in aircraft noise	Yes	38%	36%	43%
	No	58%	58%	55%
	Unsure	4%	5%	2%
	Total	100%	100%	100%

		Area				
		CP/Glen Col %	Gren/Horo/Koro Col %	Newl/Ngau/Pap Col %	John/Broad/Ohariu Col %	Khan/Ngaio Col %
Noticed a change in aircraft noise	Yes	30%	25%	28%	45%	49%
	No	63%	71%	64%	53%	50%
	Unsure	6%	4%	8%	2%	1%
	Total	100%	100%	100%	100%	100%

Respondents around Johnsonville, Khandallah and Ngaio more likely to have noticed a change.

		Noticed a change in aircraft noise		
		Yes Row %	No Row %	Unsure Row %
Suburb	Broadmeadows	35%	59%	6%
	Churton Park	31%	63%	7%
	Glenside	29%	71%	0%
	Grenada	25%	75%	0%
	Horokiwi	0%	75%	25%
	Johnsonville	47%	52%	2%
	Khandallah	48%	51%	1%
	Korokoro	50%	50%	0%
	Newlands	29%	63%	8%
	Ngauranga	0%	50%	50%
	Ngaio	49%	49%	2%
	Ohariu	33%	67%	0%
	Paparangi	28%	72%	0%

Has this change been positive, negative or neutral for you?

		Count	Col %
Impact of noise change	Positive	33	17%
	Neutral	93	47%
	Negative	70	36%
	Total	196	100%

Of those who have noticed a change, 36% say it has been negative, 17% positive and 47% neutral.

		Gender	
		Female Col %	Male Col %
Impact of noise change	Positive	10%	27%
	Neutral	50%	44%
	Negative	40%	29%

		Age Under 40 Col %	40 to 60 Col %	Over 60 Col %
Impact of noise change	Positive	19%	24%	9%
	Neutral	56%	38%	52%
	Negative	26%	38%	39%

		Area CP/Glen Col %	Gren/Horo/Koro Col %	Newl/Ngau/Pap Col %	John/Broad/Ohariu Col %	Khan/Ngaio Col %
Impact of noise change	Positive	28%	17%	22%	23%	4%
	Neutral	52%	67%	48%	44%	48%
	Negative	20%	17%	30%	34%	48%

Respondents from Khandallah and Ngaio most likely to say the change has been negative.

		Impact of noise change Positive Row %	Neutral Row %	Negative Row %
Suburb	Broadmeadows	0%	50%	50%
	Churton Park	26%	57%	17%
	Glenside	50%	0%	50%
	Grenada	25%	75%	0%
	Horokiwi	0%	0%	0%
	Johnsonville	26%	43%	31%
	Khandallah	3%	44%	54%
	Korokoro	0%	50%	50%
	Newlands	27%	36%	36%
	Ngauranga	0%	0%	0%
	Ngaio	7%	54%	39%
	Ohariu	0%	50%	50%
	Paparangi	0%	100%	0%

On a scale of 0 to 10, with 10 being the highest, how annoying has the change been?

	Mean	Percentile 25	Median	Percentile 75
How annoying noise change has been	6.9	5.0	7.0	8.0

The mean rating for annoyance for those who say it was negative is 6.9/10 and the median 7/10. A quarter of respondents said it was 5/10 or less and a quarter 8/10 or more.

			Mean
How annoying noise change has been	Gender	Female	6.7
		Male	7.3
How annoying noise change has been	Age	Under 40	7.9
		40 to 60	6.8

		Over 60	6.6
How annoying noise change has been	Area	CP/Glen	4.4
		Gren/Horo/Koro	8.0
		Newl/Ngau/Pap	8.1
		John/Broad/Ohariu	6.6
		Khan/Ngaio	7.1
How annoying noise change has been	Suburb	Broadmeadows	6.7
		Churton Park	3.3
		Glenside	9.0
		Grenada	.
		Horokiwi	.
		Johnsonville	6.4
		Khandallah	7.3
		Korokoro	8.0
		Newlands	8.1
		Ngauranga	.
		Ngaio	6.8
		Ohariu	9.0
		Paparangi	.

Would you support flight paths changing to mean more flights over Newlands and fewer over Khandallah?

		Count	Col %
More flights over Newlands and fewer over Khandallah	Yes	196	39%
	No	156	31%
	Unsure	148	30%
	Total	500	100%

39% of respondents would support more flights over Newlands and less over Khandallah. 31% would not and 30% were unsure.

		Gender Female Col %	 Male Col %
More flights over Newlands and fewer over Khandallah	Yes	35%	45%
	No	34%	28%
	Unsure	31%	27%

		Age Under 40 Col %	 40 to 60 Col %	 Over 60 Col %
More flights over Newlands and fewer over Khandallah	Yes	48%	39%	34%
	No	30%	27%	37%
	Unsure	21%	34%	30%

Area

		CP/Glen Col %	Gren/Horo/Koro Col %	Newl/Ngau/Pap Col %	John/Broad/Ohariu Col %	Khan/Ngaio Col %
More flights over Newlands and fewer over Khandallah	Yes	40%	25%	25%	44%	46%
	No	21%	33%	53%	30%	23%
	Unsure	39%	42%	23%	26%	31%

Unsurprisingly the most support in Khandallah and least in Newlands

		More flights over Newlands and fewer over Khandallah Yes Row %	No Row %	Unsure Row %
Suburb	Broadmeadows	76%	12%	12%
	Churton Park	36%	23%	41%
	Glenside	86%	0%	14%
	Grenada	31%	31%	38%
	Horokiwi	25%	0%	75%
	Johnsonville	41%	32%	28%
	Khandallah	60%	25%	15%
	Korokoro	0%	75%	25%
	Newlands	23%	55%	23%
	Ngauranga	50%	50%	0%
	Ngaio	25%	21%	54%
	Ohariu	33%	42%	25%
	Paparangi	28%	44%	28%

Would you support flights before 7am taking a different route over Horokiwi to avoid the northern suburbs?

		Count	Col %
Flights before 7am over Horokiwi	Yes	300	60%
	No	100	20%
	Unsure	100	20%
	Total	500	100%

A large 60% support flights before 7 am over Horokiwi, with only 20% opposed.

		Gender Female Col %	Male Col %
Flights before 7am over Horokiwi	Yes	60%	60%
	No	17%	24%
	Unsure	23%	17%

		Age Under 40 Col %	 40 to 60 Col %	 Over 60 Col %
Flights before 7am over Horokiwi	Yes	59%	70%	49%
	No	17%	15%	28%
	Unsure	24%	15%	23%

		Area CP/Glen Col %	 Gren/Horo/Koro Col %	 Newl/Ngau/Pap Col %	 John/Broad/Ohariu Col %	 Khan/Ngaio Col %
Flights before 7am over Horokiwi	Yes	54%	50%	67%	60%	60%
	No	17%	25%	15%	21%	23%
	Unsure	29%	25%	18%	19%	17%

		Flights before 7am over Horokiwi Yes Row %	 No Row %	 Unsure Row %
Suburb	Broadmeadows	71%	18%	12%
	Churton Park	55%	17%	28%
	Glenside	43%	14%	43%
	Grenada	63%	6%	31%
	Horokiwi	0%	75%	25%
	Johnsonville	59%	21%	20%
	Khandallah	65%	21%	14%
	Korokoro	50%	50%	0%
	Newlands	64%	17%	19%
	Ngauranga	100%	0%	0%
	Ngaio	53%	26%	21%
	Ohariu	58%	25%	17%
	Paparangi	72%	11%	17%

Demographics

		Count	Column N %
Gender	Female	277	55.4%
	Male	223	44.6%
Age	Under 40	112	22.4%
	40 to 60	209	41.8%
	Over 60	179	35.8%
Area	CP/Glen	82	16.4%
	Gren/Horo/Koro	24	4.8%
	Newl/Ngau/Pap	97	19.4%
	John/Broad/Ohariu	159	31.8%
	Khan/Ngaio	138	27.6%

Suburb	Broadmeadows	17	3.4%
	Churton Park	75	15.0%
	Glenside	7	1.4%
	Grenada	16	3.2%
	Horokiwi	4	0.8%
	Johnsonville	130	26.0%
	Khandallah	81	16.2%
	Korokoro	4	0.8%
	Newlands	75	15.0%
	Ngauranga	4	0.8%
	Ngaio	57	11.4%
	Ohariu	12	2.4%
	Paparangi	18	3.6%

David Farrar
Director
Curia Market Research

AIRWAYS

14 October 2024

Wellington International Airport Limited
Wellington

wellingtonairport@wellingtonairport.co.nz

RESPONSE TO WELLINGTON INTERNATIONAL AIRPORT LIMITED FLIGHT PATH CONSULTATION

INTRODUCTION

Airways is New Zealand's air navigation service provider. We are authorised by section 99 of the Civil Aviation Act 1990 to provide the following services throughout the country:

- area control services;
- approach control services; and
- flight information services.

As part of our air navigation service role, Airways is responsible for delivering air traffic control and infrastructure to ensure all aircraft and passengers in Aotearoa's airspace arrive at their destination, safely and efficiently. It is our job to protect people by maintaining the safety of air travel now and in the future.

The safety of air travel is mission critical to Airways. It was the principal driver behind Airways designing, with Wellington Airport's support, the divergent missed approach system (DMAPS) for aircraft departing and arriving at Wellington Airport. Jet departure and missed approach instrument flight procedures – the subject of this consultation – are one element of DMAPS.

Airways makes this submission to assist Wellington Airport in its consultation process by providing expert technical information about the safety and efficiency of the proposed flight path options for jet departures and the missed approach. To that end, this submission sets out:

- The context of previous flight paths at Wellington Airport and challenges they posed.
- The principle of "safety by design" employed by Airways in its approach to designing instrument flight procedures.
- Specific safety and efficiency feedback on each of the proposed flight path options.

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A summary of Airways' feedback on Wellington Airport's consultation options is as follows:

- Airways firmly supports option 1. We prefer this option above options 2 and 3 from both safety and efficiency perspectives. Option 1 retains DMAPS as a comprehensive and predictable system for safety, while also delivering significant efficiency and sustainability gains for the Airport, airlines and passengers.
- Option 2 would compromise the efficiency and sustainability of aircraft operations into and out of Wellington Airport. For this reason, it is not Airways' preferred option.
- Airways does not support option 3. It is the least acceptable of the options from a system-wide perspective, and the flow on effects of safety mitigation will result in significant inefficiencies for the Airport, airlines and passengers.

We are not aware of any other options that would rival option 1 in terms of safety, efficiency and sustainability.

Airways is grateful for the opportunity to submit on Wellington Airport's flight path consultation. We would be happy to answer any queries arising out of this submission, and welcome any further engagement if that would be of assistance to Wellington Airport.

PREVIOUS FLIGHT PATHS AT WELLINGTON AIRPORT

Airways has an obligation to protect all aircraft, including all aircraft that may be required to adopt a missed approach procedure.

Because of that obligation, Airways is required to protect the missed approach path, meaning we have to ensure that any arriving aircraft will be able to fly the missed approach without risking collision with previously departed aircraft.

This is achieved by maintaining separation: Airways will make sure a departing aircraft has departed before permitting an arriving aircraft to reach a specific point in their approach. Depending on the type of aircraft and the flight procedures involved, this separation point could be anywhere from 3 to 9 nautical miles before the runway.

Wellington Airport has particular geographical and environmental challenges for arriving and departing aircraft, which limit the practical and available options for Airways to meet our obligations to protect the missed approach.

Prior to the implementation of DMAPS, standard instrument departures and missed approach procedures for jet aircraft at Wellington Airport flew the same initial track. Adequate separation required either:

- the missed approach aircraft flying a visual circuit with manual navigation by the pilot; or
- air traffic control maintaining separation by providing greater gaps between departing and arriving aircraft.

Practical problems with the previous flight paths included:

- When the visual circuit was not available (due to weather or other issues), every second departure opportunity was reserved for missed approach protection with a consequent reduction in capacity for aircraft movements.
- Changes to the operational environment meant that the visual circuit was rarely being used by jets. This was based on airlines' safety concerns, airlines' increasing desire for planned and predictable procedures, and the modern digital automated environment.
- The trend against using the visual circuit in turn created a trend towards the lower poor-weather capacities being applied in all weather conditions.

The flow on efficiency effects of those practical problems included:

- Capacity in bad weather was 13 aircraft movements per hour (13 departures and 13 arrivals), which often applied in good weather conditions also due to operator/pilot unwillingness to adopt the visual circuit.
- Demand often exceeded capacity during peak hours each day, resulting in substantial ground and some airborne delays.
- An estimated additional $350,000 of direct aircraft operating costs from airborne delay per annum.
- An estimated additional 24,000 minutes per annum of ground delay.

Airways' drive for safety improvements included undertaking a thematic review of the missed approach at Wellington Airport in 2019–2020. This assessed a number of prior incidents associated with the missed approach procedures then in use at the Airport. Of particular importance to the current consultation were:

- A finding that pilots were increasingly unwilling to enter a visual circuit on missed approach, and that some pilots did not advise that they were unwilling to do so, leading to a potential mismatch in expectations with air traffic control.
- A finding that procedures at Wellington Airport had potential ambiguities that could impact on safety and protecting the missed approach.
- A priority recommendation that the missed approach procedure be reassessed and updated, considering matters such as safety, environmental conditions, delays to departures and fuel burn, while ensuring that safety risk is afforded the highest priority.
- A further 42 recommendations regarding detailed aspects of missed approach procedures and processes.

DMAPS has addressed these concerns regarding the missed approach, and was designed through the principle of safety by design.

AIRWAYS

SAFETY BY DESIGN FOR INSTRUMENT FLIGHT PROCEDURES

The principle of safety by design reflects international best practice in air traffic safety and is incorporated into all relevant aspects of air navigation services.

For instrument flight procedures, safety by design is reflected in the Civil Aviation Rules (in particular CAR Part 173), and means that:

- The process by which flight procedures are designed involves compliance with CAR Part 173, including subjecting the design to peer review and then certification by a principal designer.
- The design itself addresses CAR Part 173 and ICAO criteria and best practice, including matters such as terrain avoidance, containment, and separation from other flightpaths.
- Where practicable, risks are mitigated by incorporating safety measures into the core of the design itself. The intent is to design systems that avoid the prospect of safety risks arising in the first place.
- Before being adopted for use, every element of the flight procedure is tested, including by subjecting the procedure to physical test flights.
- When in use, the flight procedure is programmed into a database for aircraft to upload and use up-to-date flightpaths. When uploaded, instrument flight procedures mean that, instead of relying on manual navigation and the attendant risks of human operations and decision making, pilots can rely on the flight procedure as programmed to ensure the aircraft reaches its destination safely.

Where possible, safety by design seeks to avoid the prospect of introducing errors by reducing the instances where human operators need to make ad-hoc or reactionary decisions during safety critical phases. Including safety mitigations in the design of flight paths and instrument flight procedures is a principal way of achieving this.

Arrivals and departures are safety critical phases during flights, with potentially serious consequences for any error. There are typically multiple aircraft involved, all of which are undertaking some of the more complex manoeuvres of an aircraft's flight. The fact that multiple human operators are making decisions about arrivals and departures (including air traffic control as well as multiple pilots) means there is an increased prospect of error during this phase.

If the design of the flight procedure has inbuilt mitigation measures for an unintended event (such as a missed approach), it reduces the need for multiple human operators to make ad-hoc decisions in reaction to the event. Otherwise, safety in a missed approach context relies on communications between a pilot and the air traffic controller (who may be dealing with multiple other aircraft in the circuit), and the air traffic controller having to calculate a suitable gap between aircraft, instructing pilots to wait, and directing one pilot to land at a suitable time. In respect of arrivals and departures in particular, safety by design reduces the likelihood of introducing human procedure errors during such a safety critical phase.

Accordingly, to comply with Airways' safety obligations, and to be consistent with the principle of safety by design, any IFRs for departure and missed approach need to:

- meet all relevant regulatory requirements;
- address the protection of missed approach as a core part of its design;
- reduce risk by being planned, predictable, and non-complex for all operators;
- be compatible with other control zone users; and
- apply in all weather conditions.

DMAPS, including the jet departure and missed approach procedures, meets these requirements.

OPTION 1

Airways firmly supports retention of the current DMAPS flight paths. The jet flight paths are one element of a complete system that was developed with a primary goal of improving the safety of aircraft operations without negatively impacting the efficiency and sustainability of aircraft operations into, and out of, Wellington Airport. DMAPS as a whole, and jet flight paths in particular, address the safety issues identified by the thematic review into the previous management of protecting the missed approach. It implements a best-practice safety by design approach to this safety critical phase of aircraft flight.

In particular, DMAPS achieves safety goals by:

- Being consistent with the global shift to predictable, planned and published procedures.
- Adopting a system-wide approach across all departing and arriving aircraft to protect the missed approach.
- Protecting missed approach by incorporating into the instrument flight procedure designs an automatic 30 degree divergence between departure and missed approach tracks.
- Reducing the opportunities for human error creating risk. In particular:
    - The divergence incorporated into the instrument flight procedure design would require simultaneous procedure error from both departing and missed approach aircraft to create a "confliction" risk.
    - Removing reliance on visual navigation as a missed approach procedure removes any need for pilots to navigate manually to avoid terrain and stay within controlled airspace.
- Being compatible with other control zone users (and in fact increasing efficiency for those users by improving capacity, reducing airborne and ground delays, and maintaining capacity in poor weather conditions).

- Safety events reported at Wellington have reduced significantly from 27 in the 12 months of 2019 (pre-COVID), to 4 safety reports and 3 safety related concerns in the 18 months post DMAPS implementation (from 01 December 2022).

In addition to those safety benefits, DMAPS has also increased efficiency and sustainability of aircraft operations at Wellington Airport. For example:

- Aerodrome capacity has increased significantly with DMAPS. Whereas previous capacity was limited by the missed approach procedure, capacity has now increased on an interim basis to 16 aircraft movements per hour (a 23% gain), and is anticipated to increase to 19 movements per hour in the near future (a 45% gain). This increase is the product of not needing to hold over every second departure opportunity for the missed approach, and of reducing separation between arriving and departing aircraft due to the early divergence between departure and missed approach tracks. These are both the result of the divergence design feature central to DMAPS.
- The factors that increase aerodrome capacity also mean that the increased capacity is able to be maintained even in poor weather conditions. This is of particular importance in Wellington, where poor weather conditions can otherwise have a significant impact on capacity, as was previously experienced.
- The increased capacity, and the ability to maintain it in poor weather, has contributed to fewer delays for aircraft (and their passengers) both arriving at and departing from Wellington Airport.
- This means less time waiting on the runway and shorter holding times in the air, with associated savings in fuel costs and reduced CO_2 emissions for airlines. It is estimated that ground delays have reduced by 80%.
- DMAPS has optimised flight paths for jet aircraft in particular, with an estimated saving of aircraft kilometres of 28,000km/annum.
- The reduced waiting and holding time, together with aircraft kilometre savings, produces an estimated 380 tonne reduction in CO_2 emissions.

Of all the options, option 1 retains DMAPS as a comprehensive and predictable system for the safety of departing and arriving aircraft. Alongside that prioritisation of safety, it delivers significant efficiency and sustainability gains for Wellington Airport, airlines and passengers. For these reasons, Airways firmly supports option 1 and prefers it over the remaining options.

OPTION 2

From a system safety perspective, Airways' preference will always be for simplicity. Changing flight paths during specific periods of time heightens the risk of human error, and is generally avoided where practicable.

As identified in the consultation document, the time period identified between 6 and 7am is generally devoid of scheduled arriving flights. However, aircraft do arrive at Wellington Airport outside of the typical schedule, including for emergency and visiting dignitary flights. In 2023, some 465 of such arrivals occurred between 6 and 7am. This means there is, on

average, more than one non-scheduled arrival between 6 and 7am per day. Airways emphasises that we have an obligation to protect the missed approach for all arrivals, not just scheduled arrivals.

Due to the general absence of scheduled arrivals between 6 and 7am, and with the creation and implementation of robust procedures, the introduction of option 2 may be possible from an air traffic management perspective.

Option 2 is nonetheless a potentially safety-compromising option.

Airways has two principal concerns.

First, option 2 creates a process change at 7am with attendant risks of confusion or error. If this change is implemented with a manual override to the programmed post-7am instrument flight procedures then this would introduce the prospect of human error. If it was possible to implement option 2 with an automated switch of instrument flight procedures for the 6am-7am period (and it is not currently clear how much software modification would be required), there would still be the risk of air traffic control, the pilot or both, being confused as to which protocol is in place.

Airways is therefore concerned that option 2 is not best practice from a system-safety perspective.

Secondly, Airways' remaining safety concern is that any arriving aircraft (scheduled or unscheduled) that perform a missed approach procedure will not have the benefit of a divergence from the departure flightpath. Instead, to maintain separation, significantly larger gaps will be required ahead of any arriving aircraft.

In terms of efficiency and sustainability, Airways notes that the proposed deviation to the East of the current jet departure track will result in a slight increase in track miles for the aircraft which will result in higher fuel burn and CO_2 emissions. This is estimated to be an additional 8 nautical miles per departure. Assuming 5 departing aircraft between 6 and 7am each morning, this would add close to 27,000km/annum to aircraft kilometres.

Option 2 therefore involves possible compromises to best practice from a system-safety perspective, and has significant impacts on the efficiency and sustainability of aircraft operations. For this reason, it is not Airways' preferred option.

OPTION 3

Airways does not support the option of reverting to a northerly route for jet departures, similar to that used prior to December 2022.

Option 3 would require significant alternative mitigations to remove a number of the safety issues that were identified in the thematic review prior to the implementation of DMAPS. Those mitigations will have significant adverse effects on efficiency and sustainability as well.

AIRWAYS

Importantly, for safety reasons, Airways would no longer accept jet aircraft flying a missed approach procedure to fly manually on a visual circuit as indicated in the consultation document. This is for a number of reasons, including:

- Flying a visual circuit introduces increased opportunities for human error, as pilots have to rely on visual cues and manual navigation to avoid terrain and to avoid uncontrolled airspace.
- Pilots are increasingly unwilling to do so for the reasons outlined above.
- Adopting the visual circuit increases the communication, decision making, and coordination load on air traffic control.

Instead of the visual circuit, missed approach jet aircraft would fly the straight ahead missed approach flightpath and Airways would re-instate the longer separation gaps for arriving aircraft in order to protect the missed approach procedure.

In terms of efficiency and sustainability, option 3 is in large part a return to the worst-case scenario pre-DMAPS. In particular, option 3 would result in Wellington Airport, airlines, and passengers experiencing:

- Decreased capacity, with a return to peak capacity of 13 aircraft movements per hour.
- Similar scenarios of demand exceeding capacity during peak hours each day, resulting in substantial airborne and ground delays affecting departure and arrival times.
- Loss of estimated reductions in ground delay (as above, this is estimated at 80% with DMAPS), and loss of estimated reductions in airborne delay.
- Loss of the estimated 28,000km/annum in reduced aircraft kilometres as a result of more efficient flightpaths.
- Loss of associated fuel cost savings and the estimated 380 tonne reduction in CO_2 emissions.

Of all the options, Airways considers option 3 to be the least acceptable from a system-management perspective, and notes that the efficiency and sustainability implications will be significant for Wellington Airport, airlines, and passengers. Airways does not support option 3 for these reasons.

Yours sincerely

Ben Girard

GENERAL MANAGER – AIR TRAFFIC SERVICES / ACTING CEO

AIRWAYS CORPORATION OF NEW ZEALAND LIMITED

Appendix three: IATA submission

10 October 2024

Wellington Airport
PO Box 14175
Te Whanganui-a-Tara Wellington 6140
AOTEAROA NEW ZEALAND

By email: wellingtonairport@wellingtonairport.co.nz

IATA Response to *Potential flight path changes for Wellington northern suburbs*

The International Air Transport Association (IATA) is the global trade association for the world's airlines, representing some 330 airlines or over 80% of total air traffic. Our members include Air New Zealand, as well as a number of foreign airlines who operate services to Aotearoa New Zealand. We support many areas of aviation activity and help formulate industry policy on critical aviation issues. We pride ourselves as an association in working collaboratively with industry and government alike to ensure the most effective policy frameworks are in place.

IATA thanks Wellington Airport for the opportunity to provide a response to this consultation process. Given its geographic isolation and varied topography, aviation plays a key role in Aotearoa New Zealand's economy, allowing regional communities to be connected to major cities and the world. We acknowledge the concerns that have been shown by residents of some of Wellington's northern suburbs, now impacted by the newly designed flight paths.

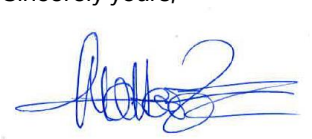
IATA has worked extensively with a range of stakeholders around the world on matters pertaining to flight path design and aircraft noise. For the benefit of this consultation process, we attach our recent submission to the Australian Government's inquiry into the impact and mitigation of aircraft noise.

As outlined in this submission, the aviation sector is making great strides to minimise the impacts of its operations where practicable through investment in newer, quieter aircraft, developing optimised flight procedures and participating in noise research for quieter flying. We encourage Airways New Zealand to look to best practice in global guidance, such as the UK Department of Transport *Air Navigation Guidance 2017* sections 3.2 and 3.3, where frameworks are provided to assist the authority and sponsors through laying out altitude-based priorities which should be taken into account when considering the potential environmental impact of airspace changes.

These priorities indicate that the core focus for flight paths below 4,000ft should be to limit or reduce adverse effects on people. Above this flight level, environmental concerns (i.e. CO_2 emissions) and flight path efficiency are deemed as being of increasing importance, relative to ground level impacts. It is IATA's understanding that the current jet flight paths meet these parameters.

IATA again thanks Wellington Airport for allowing us the opportunity to share our views. We would be happy to provide further information to relevant bodies as required. Should you require additional information, please do not hesitate to contact me on the email address below.

Sincerely yours,



Matteo Zanarini
Area Manager
South West Pacific
zanarinim@iata.org

Appendix four: BARNZ submission

Thank you for the opportunity to comment on proposals to consult on options for flight paths for flights departing Wellington.

BARNZ would like to set out its support for the current flight paths, which arise following implementation of DMAPS in 2022. DMAPS (Divergent Missed Approach Protection Systems) was introduced at Christchurch in 2020, and Wellington in 2022 as an Airways New Zealand initiative to attempt to create safety and efficiency gains between arriving and departing aircraft using the same runway.

BARNZ is aware that safety and efficiency gains have been substantial. Comparing January – March 2023 with an average of the same period in 2021 and 2022, the CAA observe substantial improvements in air and ground delays, and a 209t reduction in carbon emissions. These are substantial improvements given the number of bad weather days in the 2023 period increased markedly.

	Average Jan-Mar 2021/2022	Jan-Mar 2023	Change	Saving Jan-Mar 2023	Estimated Jan-Mar CO2 Savings	Projected Annual Savings	Projected Annual Fuel Savings	Projected CO2 Savings
Total flight numbers	**16,540**	**18,516**	**12.0 %**					
Track-shortening			**-4,500 NM**	8,334 km	79 t	33,799 km	102 t	321.3 t
Poor weather days	**17**	**32**	**94 %**					
Air delays	**34.99 hrs**	**32.30 hrs**	**-7.7 %**	**2.7 hrs**	**130 t**	**10.9 hrs**	**167 t**	**526.3 t**
Ground delays - fine weather	11.71 hrs	8.98 hrs	-23.3 %	2.7 hrs		11.1 hrs		
Ground delays - poor weather	66.73 hrs	25.83 hrs	-61.3 %	40.9 hrs		165.8 hrs		
Ground delays	**78.43 hrs**	**34.82 hrs**	**-55.6 %**	**43.6 hrs**		**176.9 hrs**		
Total delays	**113.43 hrs**	**67.1 hrs**	**-40.8 %**	**46.3 hrs**	**209.0 t**	**187.8 hrs**	**268 t**	**848 t**

(Source: CAA)

BARNZ would be concerned if changes were made such that these time, cost, and carbon efficiencies and safety improvements were lost or reduced. Safety concerns should be paramount in any consideration of change, and any unnecessary increase to carbon emissions should also be avoided.

With kind regards

Cath

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BARNZ
VOICE OF THE AIRLINE INDUSTRY

Appendix five: NZ Airports submission

NZ AIRPORTS ASSOCIATION

SUBMISSION TO THE WELLINGTON INTERNATIONAL AIRPORT CONSULTATION ON THE DMAPS (NORTHERN) FLIGHT PATHS

1. Thank you for the opportunity to make this submission on the question of flight path options for aircraft departing to the North from Wellington International Airport (WIAL).

2. NZ Airports applauds the efforts by WIAL to hold this public consultation and to commission Marshal Day Acoustics to conduct an expert assessment of the noise effects from the Divergent Missed Approach Protection System (DMAPS) and pre-DMAPS flight paths, and of a proposed option for early morning departures (Option 2).

3. NZ Airports is the industry association for New Zealand's airports and related businesses. Our members[1] (which include WIAL) operate 46 airports across the country, including the international gateways to New Zealand - of which WIAL is one. This infrastructure network is essential to a well-functioning economy and society. The airport network enables critical transport and freight links between each region of New Zealand, and between New Zealand and the world. Airports are defined as 'strategic assets' under the Local Government Act 2002 and are considered nationally and regionally significant infrastructure by Government and in legislation.

4. A safe and efficient aviation system is essential to New Zealand's wellbeing and sustaining an economy that supports New Zealanders' and the nation's aspirations. A safe and efficient aviation system depends on each participant in the overall system having expertise and having clear roles and responsibilities that are focused on safe flight operations. NZ Airports supports the work of Airways NZ as the national air navigation system provider, and its subsidiary Aeropath as the designer of flight paths.

5. The DMAPS change was introduced to improve the safety of aircraft departing to the North. Altering flight paths is not undertaken lightly because doing so has follow-on effects for fuel use and pilot certification for that airport, etc. In addition, WIA's DMAPS introduction was independently approved by the Director of Civil Aviation Authority because the change was an improvement to the safety of aircraft, their passengers and crew.

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1 Our member airports: Ardmore Airport, Ashburton Airport, Auckland Airport, Bay of Islands Airport, Chatham Islands Airport, Christchurch Airport, Dunedin Airport, Gisborne Airport, Hamilton Airport, Hawkes Bay Airport, Hokitika Airport, Invercargill Airport, Kaikohe Airport, Kaitaia Airport, Kapiti Coast Airport, Marlborough Airport, Masterton Airport, Matamata Aerodrome, Milford Sounds, Motueka Airport, Nelson Airport, New Plymouth Airport, North Shore Airport, Oamaru Airport, Ohakea Airport, Palmerston North Airport, Queenstown Airport, Rangiora Airfield, Rotorua Airport, Takaka Airport, Taupo Airport, Tauranga Airport, Te Kowhai Airport, Timaru Airport, Wairoa Airport, Wanaka Airport, Wellington Airport, West Auckland Airport, Westport Airport, Whakatane Airport, Whanganui Airport, Whangarei Airport, Whenuapai Airport

6. NZ Airports' evaluation of the Marshall Day report is that the DMAPS flight paths clearly reduced the number of people negatively affected (highly annoyed or N65 events) in comparison to the pre-DMAPS flight paths.

7. We support Option 1 - retention of the current flight paths or status quo – over Option 3 on that basis. The status quo is also the safest option of the two.

8. Option 2 – early morning departures on a more Northerly path for a period of one hour (6am-7am) has pros and cons. The Marshall Day report is clear that there would be a substantial reduction in the number of people either Highly Annoyed, N60 events, or having some notice of aircraft noise.

9. However, the Marshall Day report is an assessment of Option 2's impact on the current population of the Horokiwi and Korokoro suburbs. There are potential future residential developments in those suburbs that would increase the overall noise impact from taking up Option 2.

10. Option 2 could also add to the planning complexity for pilots programming the Standard Instrument Departures to the North because the route the aircraft would take would depend on the departure time. To illustrate, a delay that pushed departure into the 6-7am timeslot would require a last-minute change of flight path.

11. NZ Airports notes the original DMAPS was optimised for safety and efficiency and did not have different flight paths depending on the time of day.

Contact point:

Steve Riden
Policy Director
New Zealand Airports Association

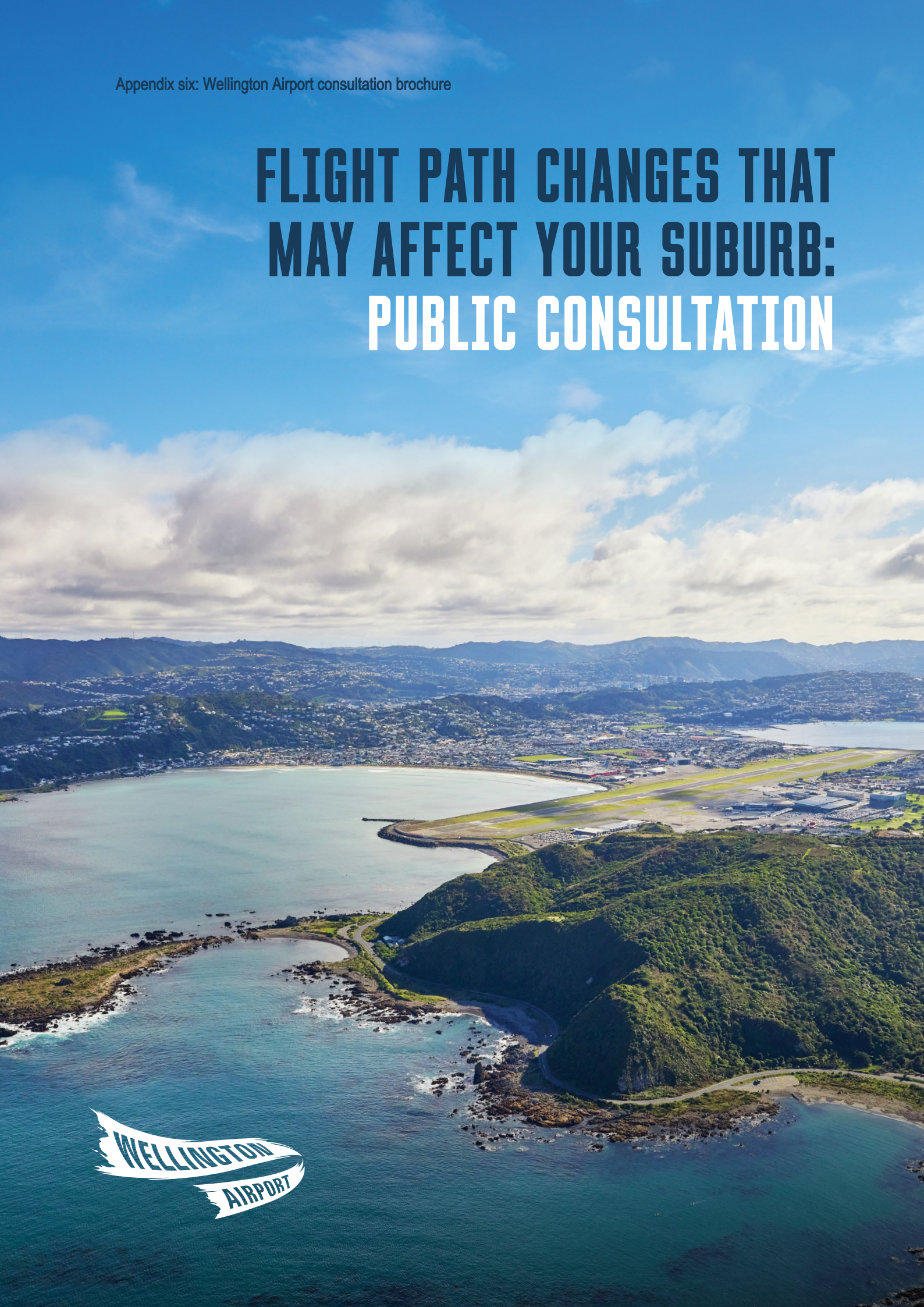
Address for Service
Steve Riden
New Zealand Airports Association Inc.
P O Box 11 369
Manners Street
WELLINGTON 6142

Telephone: (04) 384 3217
Email: steve.riden@nzairports.co.nz

Date: 11 October 2024

Appendix six: Wellington Airport consultation brochure

FLIGHT PATH CHANGES THAT MAY AFFECT YOUR SUBURB: PUBLIC CONSULTATION



WELLINGTON AIRPORT

INTRODUCTION

Wellington Airport is publicly consulting on potential flight path options for northerly jet departures from Wellington. The options are:

1. Maintaining the current flight paths
2. Changing the northerly route for jet departures before 7am to fly between Horokiwi and Korokoro
3. Changing the northerly route for jet departures to a similar route used before December 2022 over Newlands Ridge
4. Any other proposal raised through this engagement process.

Each option will have different benefits and drawbacks which are outlined in more detail below.

BACKGROUND

This public consultation follows changes made to flight paths for jet aircraft departing Wellington to the north in December 2022. In general, these changes have meant fewer departures over Newlands and more over Khandallah and Broadmeadows.

The changes are part of a system called Divergent Missed Approach Protection System (DMAPS). DMAPS was initiated and developed by Airways, New Zealand's air navigation service provider, and approved by Wellington Airport and the Civil Aviation Authority.

The main aim of this change was to improve safety in relation to aircraft that are unable to land for any reason, by having departing jet aircraft diverge (i.e. turn left) during climb on the flight path.

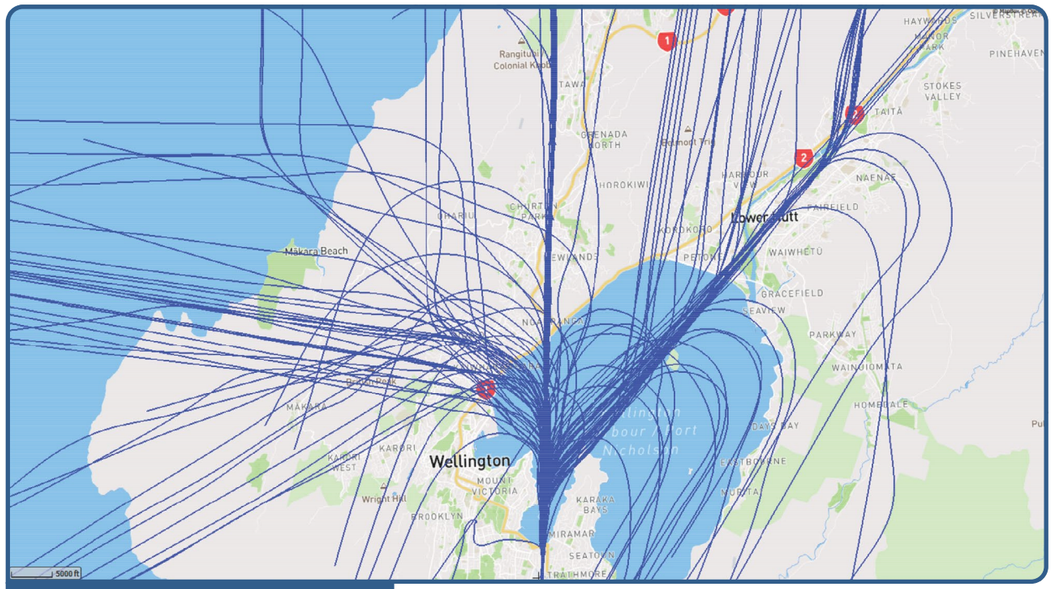
As a result, the safety, efficiency and sustainability of aircraft operations from Wellington Airport has improved. However, while this has meant reduced noise impacts for some residents, others have experienced a noise increase.

The maps on the following page illustrate the change on a typical day before and after the change. It is important to note this is a general indication and that pilots can request permission to deviate from set paths. In practice, aircraft will always fly widely over the northern suburbs, and it is unavoidable that aircraft will fly over residential areas under each option.

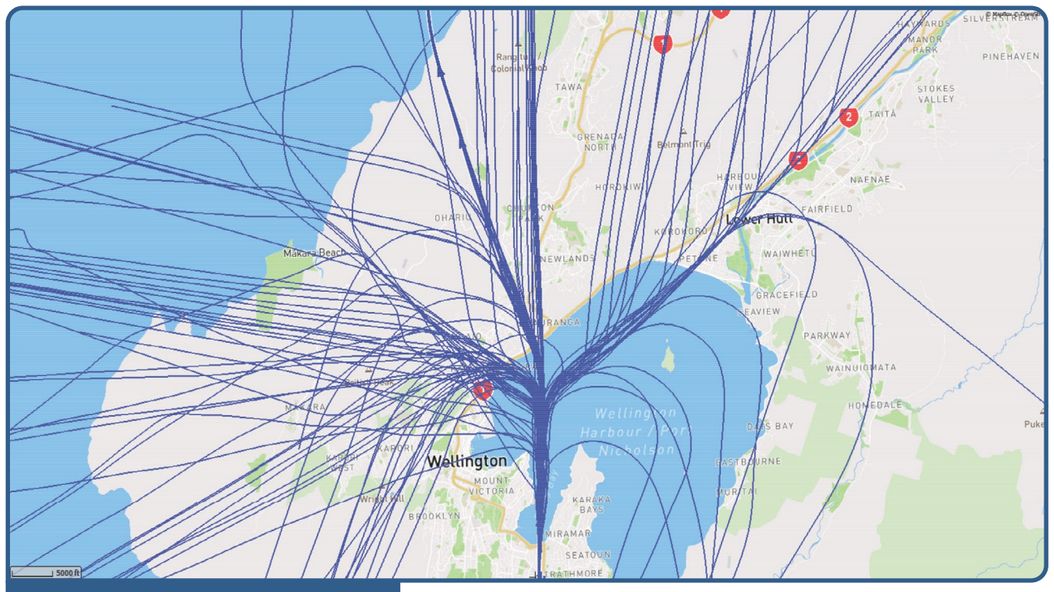
We have listened to public feedback and as a result have asked Airways, who design and maintain flight paths, to develop these alternative options for consideration.

The timing of any final change, if any, is still to be confirmed and will depend on which option is selected following consultation.

Consultation is now open and will run until 5pm Friday 11th October. Wellington Airport will carefully consider all feedback before informing Airways of our position.



Pre-DMAPS 1 September 2022



With DMAPS 1 September 2023

More detailed background information including noise monitoring reports are available at **www.wellingtonairport.co.nz/dmaps**.

For any queries you can contact us via email at **wellingtonairport@wellingtonairport.co.nz**.

HOW TO HAVE YOUR SAY

See page 11 for information on how to give your feedback.

WELLINGTON AIRPORT'S ROLE

Wellington Airport does not develop or certify flight paths. These are generally proposed by Airways and Wellington Airport is then able to approve or decline these proposals. The Director of Civil Aviation is then responsible for approving the flight paths before they can be used.

In the specific case of DMAPS, we are taking a more active role than usual given the feedback we have received from local residents. We want to ensure everyone has their say before weighing up all factors and indicating to Airways our position.

OPTION 1: MAINTAIN THE STATUS QUO

This option would continue with the current flight path for departures in a northerly wind from Wellington as shown.

From 1 December 2022 jet aircraft have flown this route, tracking slightly further to the west than before. While aircraft have always overflown these areas, it has meant an increase in the volume of flights in a narrower channel over Khandallah, Broadmeadows and western parts of Johnsonville, and a corresponding decrease in departure flights over Newlands, eastern Johnsonville and Churton Park.

It is important to note this is only for departures, not arrivals, and is used only when the wind is blowing from a northerly direction (approximately two thirds of the time).

On a day when planes are departing to the north, an average of 38 jet aircraft depart each day between the hours of 6am and 10pm. Typically these are at a height of between 3250 – 3750 feet when reaching Khandallah and around 4500 feet when crossing Johnsonville.

Jet aircraft heading south

Benefits of this option

Safety: DMAPS provides greater assurance of separation between aircraft flying a missed approach and other departures. Pilots are able to fly a more consistent and predictable missed approach flight path, rather than relying on flying manually using visual cues to avoid terrain and uncontrolled airspace.

Efficiency: Jet aircraft heading north or to Australia are now taking a slightly more direct route. This means improvements to flight times for travellers, reduced fuel burn and costs for airlines, and reduced airborne and ground delays into Wellington (see below). An estimated 33,000 kilometres in aircraft travel distance has been saved per year.

Reduced delays: DMAPS allows air traffic controllers to safely reduce the size of the gaps required between approaching aircraft, particularly in poor weather. In the past, they would have held aircraft on the ground or in the air, or slowed them down enroute, especially during peak traffic periods.

As a result, airborne delays have reduced by an average of three per cent per flight despite a three per cent increase in traffic volume at Wellington Airport between 2022 and 2023. At the same time, ground delays have reduced by 86 per cent.

Sustainability: More direct flight paths and reduced delays means reduced fuel use and CO_2 emissions.

Noise reduction in some areas:
The suburbs of Newlands, Churton Park and east Johnsonville have experienced a reduction in aircraft noise from when this flight path was introduced.

Fewer people affected by noise overall:
Our noise analysis shows that this option affects approximately 15,000 fewer people than before DMAPS.[1]

Potential downsides of this option

There have been noise impacts on some suburbs, particularly Khandallah and Broadmeadows. More than 120 people have complained to Wellington Airport and Airways, and the group Plane Sense Wellington has been advocating for residents affected.

This feedback is not universal however, reflecting that noise is subjective and experienced differently by people. It is important to note some aircraft have always overflown nearby, including most jet arrivals in a southerly wind, and this has not changed.

In response to feedback, Wellington Airport and Airways installed further noise monitoring and carried out modelling in 2023. Temporary noise monitors were placed in Khandallah, Johnsonville, Broadmeadows and Ngaio to record data on aircraft noise levels and the full report is available on our website (**www.wellingtonairport.co.nz/dmaps**).


© Hayden Montgomerie

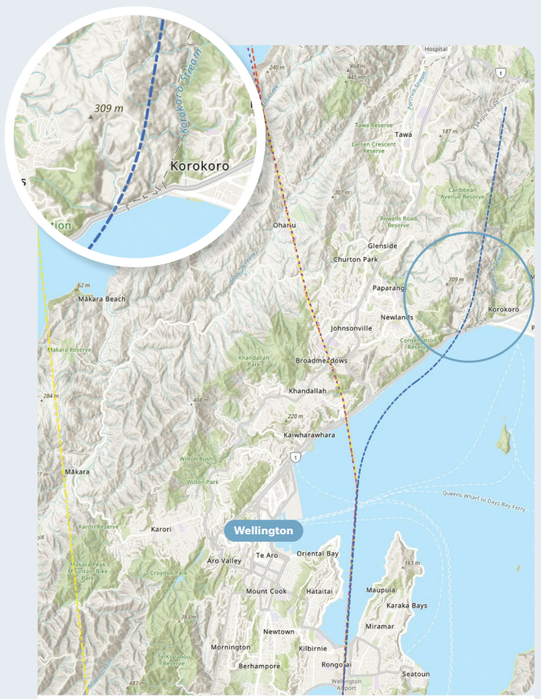
1. The full report is available on our website: **www.wellingtonairport.co.nz/dmaps**.
See table on page 8 for an estimate of the number of people affected by noise under each option.

OPTION 2: CHANGING THE NORTHERLY ROUTE FOR JET DEPARTURES BEFORE 7AM TO FLY OVER LESS POPULATED AREAS

This option would continue with the current flight path for jet departures in a northerly wind from Wellington, with the exception of jet flights between 6am and 7am which would take a different route between Horokiwi and Korokoro. This would avoid more densely populated areas.

In a northerly wind, based on current schedules this would mean up to five flights during this time in this area.[2]

Deviating from the standard DMAPS flight path at this time is a possibility because there are no flights scheduled to arrive in this period, so airspace may be more flexible.



- Departing jet aircraft heading south from 7am onwards
- Other departing jet aircraft from 7am onwards
- Flight path for jet aircraft departing before 7am

Potential benefits of this option

Some residents in the northern suburbs have told us the early morning flights before 7am have the biggest impact and often interrupt sleep.

The 2023 noise monitoring report showed that different aircraft types have a different noise impact, and in particular early morning international Boeing 737-800 departures are noisier than most other flights.

Therefore, this option could reduce this disruption and the number of people affected while at the same time preserving the safety, efficiency and sustainability benefits of DMAPS outlined above from 7am onwards.

This change could be made relatively quickly, potentially in place early next year and more quickly than Option 3 (reverting to pre-DMAPS).

Potential downsides of this option

This new flight path could have a noise impact in Horokiwi and Korokoro, and would also involve more flights over Belmont Regional Park.

Aircraft would be at a higher altitude over these suburbs compared to altitudes flown over the Khandallah/Newlands area, and noise levels would therefore be lower. However, the change in noise levels experienced by residents would be more significant and potentially more noticeable as these areas do not currently experience much aircraft noise.

It is estimated that noise levels for a jet flight over this area could be between 68 and 73 decibels. Noise experts consider 68 decibels roughly comparable to a conversation three feet away and 73 decibels similar to a vacuum cleaner at five feet.

A full report on potential noise impacts for this area is available on our website at **www.wellingtonairport.co.nz/dmaps**.

This new flight path could also mean slightly increased travel times, fuel burn and emissions for these flights due to taking a less direct route.

2. This number could change over time depending on the scheduling decisions of airlines.

OPTION 3: REVERTING TO THE NORTHERLY ROUTE FOR JET DEPARTURES USED PRIOR TO DECEMBER 2022

This would revert to broadly the previous flight paths used before DMAPS was implemented. In general, it would mean more jet departures over Newlands, parts of Johnsonville and Churton Park, and fewer over Khandallah, Broadmeadows and other parts of Johnsonville.

On a day when planes are departing to the north, approximately 38 jet aircraft on average depart each day between the hours of 6am and 10pm.[3] Flights passing over Newlands would generally be at a height of 3500 to 5000 feet.

- Departing jet aircraft heading south
- Other departing jet aircraft heading north
- Departing jet aircraft heading to Australia

3. This number could change over time depending on the scheduling decisions of airlines.

Potential benefits of this option

This would reduce the frequency of flights and noise over Khandallah, Broadmeadows and western Johnsonville.

Potential downsides of this option

This would increase the frequency of flights and noise over Newlands, Paparangi and eastern Johnsonville.

Noise assessments show that this option would affect approximately 19 – 24% more people than the status quo, given that more people live under this previous flight path.

It would mean losing the other benefits of DMAPS outlined in Option 1, including:

Reduced safety: Pilots on a missed approach would go back to relying on flying manually using visual cues to avoid terrain and uncontrolled airspace.

Reduced efficiency: Jet aircraft heading north or to Australia would take a slightly more indirect route, increasing flight times for travellers and fuel costs for airlines.

Increased delays: DMAPS has reduced airborne and ground delays for flight operations, so it is reasonable to expect these would increase if DMAPS was reversed.

Sustainability: Taking a slightly indirect route and increased delays would mean increased fuel use and emissions.

Option 3 would also take longer to implement than Option 2. If selected, Airways will need to make amendments to the pre-December 2022 flight paths to meet regulatory requirements which will require significant redesign prior to certification and submission to the Director of CAA. Due to those requirements, it would not be possible to implement this flight path before late 2025.

NUMBER OF PEOPLE AFFECTED BY EACH OPTION

Noise modelling shows that Option 1 (status quo) would affect the fewest people in terms of flights above 65 decibels. The full report is available at **www.wellingtonairport.co.nz/dmaps**.

Number of flights above 65 decibels	Number of people affected		
	Option 1 (status quo)	Option 2 (6–7am)	Option 3 (pre-DMAPS)
1 – 9	58,204	60,749	65,931
10 – 19	22,316	20,756	29,570
Total	**80,519**	**81,505**	**95,501**

HOW WE WILL DECIDE ON OUR POSITION

Wellington Airport's position will be based on (but not limited to) the following criteria, in no particular order:

- Feedback from stakeholders including local residents
- Data from the noise impact studies carried out by Marshall Day over the last few years
- Benefits to aircraft operations including safety, time, emissions, fuel use and cost
- Benefits to airport operations including impact on arrivals/departures capacity and delays

HOW WE ARE CONSULTING

We will be soliciting and considering views from the following groups (not an exhaustive list):

- Members of the community in the wider northern suburbs (including relevant residents' associations and Plane Sense Wellington)
- Airlines including Air New Zealand, Qantas and Jetstar
- Airways and its subsidiary Aeropath Limited
- Wellington City Council and Greater Wellington Regional Council
- Environmental and conservation groups

TIMING

Public consultation begins on Friday 20th September and will run until 5pm Friday 11th October.

Timing for any new flight path depends on the option selected and coordination with Airways New Zealand.

Q&A

What changes were made in December 2022?

DMAPS helps to safely manage an approaching aircraft that is unable to land for any reason, including low cloud, or wind shear, and so flies what is known as a 'missed approach' procedure.

Under DMAPS, aircraft departing north and aircraft that miss their approach will fly on separate paths that diverge at least 30 degrees from one another.

Previously, the pilot of an aircraft that had missed its approach would have either followed the same flight path as that used by jet aircraft departing to the north, or flown a circuit manually over Wellington Harbour using visual cues, before landing at Wellington Airport or diverting to another.

Departing jet aircraft now climb on a flight path that turns slightly to the west, turboprop aircraft flight paths are virtually the same, while aircraft that miss their approach now turn slightly to the east.

As a result, most jet aircraft departing north that flew over Newlands, parts of Johnsonville and Churton Park now fly more frequently over Khandallah, Broadmeadows and other parts of Johnsonville since DMAPS was implemented in 2022.

Why were these changes made?

These changes have increased safety and efficiency by reducing complexity and uncertainty. Pilots now fly a more consistent and predictable missed approach flight path that is clear of departing jet aircraft, rather than relying on flying manually using visual cues.

DMAPS also reduce delays because they allow air traffic controllers to safely reduce the size of the gaps required between approaching aircraft, particularly in poor weather. In the past, they would have held aircraft on the ground or in the air, or slowed them down enroute, for longer – especially during peak traffic periods.

Who made the final decision on DMAPS?

DMAPS was initiated and developed by Airways, New Zealand's air navigation service provider, and approved by Wellington Airport.

Have flight paths changed for arriving aircraft?

No, this has not changed for several years. The changes made in December 2022 only apply to jet aircraft departing to the north when there is a northerly wind.

Why don't planes just take off and land to the south all the time, or over the harbour?

Aircraft are required to take off and land into the wind to increase wind flow over the wings (take-off) and reduce required speed (landing).

Aircraft taking off and landing to the north already overfly Wellington Harbour but inevitably have to overfly land at some point.


© Mark Tantrum

Why can't all aircraft fly over less populated areas (Option 2) all the time, rather than just before 7am?

Taking an indirect route isn't possible for all flights after 7am for safety, efficiency and environmental reasons.

This proposed route could work before 7am given there are no scheduled arrivals in that time period and therefore reduced chance of a missed approach. After that time the airspace becomes busier and more complex.

Flying longer, more indirect routes would also extend flight times, meaning increased fuel burn, cost and emissions – especially if this was required over all residential areas. Aircraft are allowed to fly over residential areas for this reason.

Why don't we revert back to the old flight path and then start consultation?

This would not remove the noise issues, but instead result in aircraft flying over other people's homes instead. We want to consult and hear feedback before considering whether to make any such change.

Is Khandallah (and other Wellington suburbs) part of a noise abatement area?

Yes, Civil Aviation Rules include a noise abatement area for Wellington covering a number of suburbs including Khandallah and Newlands. This means that aircraft in this area must meet certain conditions, including flying a minimum height of 1500 above sea level or 1000 feet above ground level (whichever is higher). Most aircraft are at least twice that height by the time they reach this area.

Why wasn't there public consultation on the December 2022 changes?

Wellington Airport is required to manage noise within its air noise boundaries which only extend to surrounding neighbourhoods – not the northern suburbs. It was determined that DMAPS would have no impact on these boundaries, which is technically the end of Wellington Airport's responsibilities.

Wellington Airport's approval role in aircraft flight path changes does not include a legal obligation to consult.

However, the airport went above and beyond their requirements by installing a noise monitor and commissioning experts to carry out a preliminary noise assessment. This found that while the change would be noticeable to some residents, it would be within reasonable limits.

It was also determined that aircraft would not be flying in areas they hadn't previously – i.e. planes have always overflown the northern suburbs to an extent.

Is there still a legal case underway on this issue?

At the time of writing, Plane Sense Wellington has served legal proceedings against a number of parties including Airways and Wellington Airport, seeking a judicial review of the December 2022 decision. Wellington Airport had previously announced this public consultation would happen anyway and we are continuing with this as planned.

HOW TO MAKE A SUBMISSION

You can make a submission by completing our short online survey.

This is available by scanning the QR code, or at our website:
www.wellingtonairport.co.nz/dmaps

If preferred, you can fill out the physical form below and send to us at:
DMAPS consultation, Wellington Airport, PO Box 14175, Wellington

Name: _____

Address: _____

_____

Which option do you prefer (please tick one):

- ○ 1. Maintaining the current flight paths
- ○ 2. Changing the northerly route for jet departures before 7am to fly between Horokiwi and Korokoro
- ○ 3. Changing the northerly route for jet departures to a similar route used before December 2022 over Newlands Ridge
- ○ 4. Another option (please outline below)

Why is that your preferred option?

_____

_____

_____

_____

_____

Do you have any further comments or suggestions?

_____

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