

MEMO

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Subject:	ANCCG - Proposed Flightpath for Large Jets Departing Runway 05		

At the June 2024 ANCCG Meeting, Airways proposed allowing large (wide body) jets departing on Runway 05 to turn right early. This was proposed as part of the Annual Review of Current and Future Noise Reduction Initiatives.

Currently narrow body jets can take this early turn, but wide body jets are restricted to stay on their defined track. If wide body jets are allowed to turn early, then they will also fly over the Manukau Harbour and avoid overflying residential areas.

We have modelled aircraft using this proposed flightpath using the most recent FY24 compliance contours. The information for the number and type of aircraft were provided by Airways and are shown in Table 1.

The proposed flightpath will only occur when the Airport is in “Runway 05 mode” (RW05 mode), where planes depart to the east. This typically occurs 30% of the year and this 30% has been taken into account for the average flights per week.

Airways notes that not all large aircraft departing RW05 will receive or accept the early turn, so these flight numbers also take this into account. Airways also notes that the proposed flightpath is not a set track, therefore for our modelling we have used an “average flightpath” based on the paths narrow body jets currently fly.

Table 1: Average number of Large Jets using the proposed early turn

Type of aircraft	Destination	Average flights per week
B767	Christchurch	0.84
B767	Melbourne	1.05
B787	Singapore	1.47
B787	China	1.47
B747	Melbourne	0.735
A350	Singapore	0.735
TOTAL		6.3

The resulting compliance contours and proposed flightpath are seen overleaf in Figure 1 and Figure 2. The actual 2024 ANC is shown in solid green and blue lines, and the modified 2024 ANC (with the proposed track) is shown in dotted pink and orange lines.

The two sets of contours match each other almost identically, except a very small increase where the proposed flightpath flies. Figure 2 shows this small increase more clearly. From these results we conclude that the proposed flightpath will have a very small impact on future compliance contours.

We also note that with this proposed flightpath in operation there will be fewer wide body jets flying over residential areas at night. This means that residents will be exposed to fewer noisy L_{max} events.



Figure 1: Comparison of 2024 ANC (actual and with proposed track)

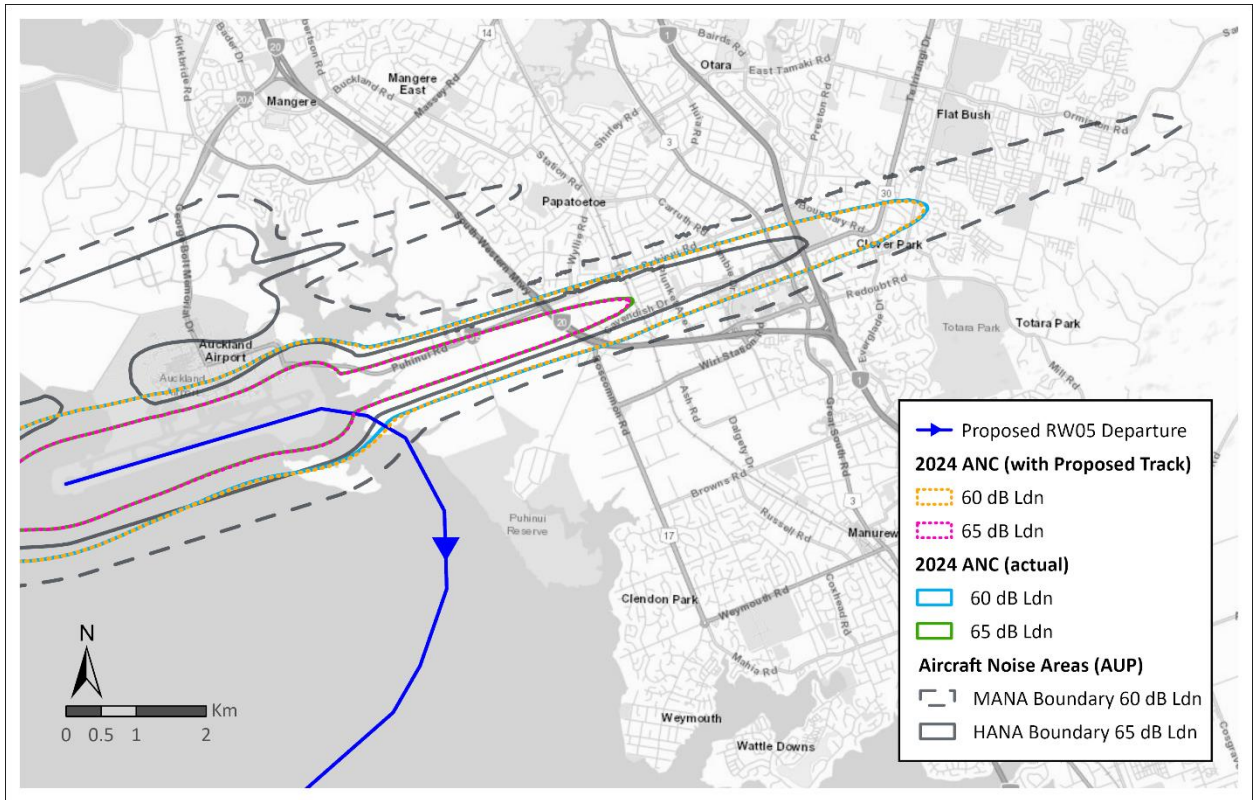


Figure 2: Zoomed in comparison of 2024 ANC (actual and with proposed track)

