MEMO



| Project: | ANCCG | Document No.: | Mm 020 | | |
|------------|--------------------------------------|------------------|----------------|--------------|----|
| То: | Auckland International Airport Ltd | Date: | 23 August 2024 | | |
| Attention: | Jeremy Lo | Cross Reference: | - | | |
| Delivery: | Email | Project No.: | 2005528a | | |
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| Subject: | ANCCG Responses to 2024 June Queries | | | | |

At the last ANCCG quarterly meeting in June, ANCCG members queried the number of $65 + L_{Amax}$ events measured by the Flat Bush noise monitor. This memo contains these queries and their answers.

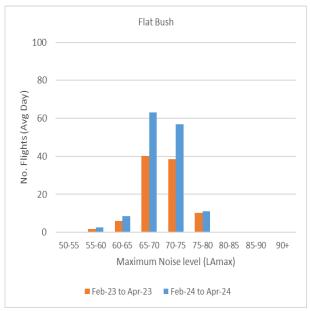
• Are the number of events higher than 65 dB L_{Amax} high and potentially disturbing?

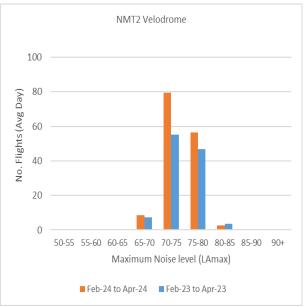
It is not unexpected for the Flat Bush monitor to register this number of L_{Amax} events above 65 or 70 dB L_{Amax} . As the monitor sits on the Auckland Unitary Plan MANA contour (Moderate Aircraft Noise Area) it will experience more noise events than the other temporary monitors.

The criteria we use for noise events that may be disturbing is 70 dB L_{Amax}. This is when aircraft noise becomes disruptive inside houses which have windows open, as they may interfere with watching tv or talking.

The Velodrome noise monitor is the closest to Flat Bush and sits on the HANA contour (High Aircraft Noise Area). For comparison, if we look at the number of noise events at Flat Bush and the Velodrome monitor (see Figure 1), the Velodrome monitor receives double the number of events over 70 dB L_{Amax} (68 at Flat Bush and 138 events at Velodrome for February to April 2024).

Figure 1: Number of noise events for Flat Bush and Velodrome monitors (for February to April 2023 and 2024)





Note: To help evenly compare the two monitors, we have modified these figures from those in the Quarterly report so that the horizontal and vertical axes have the same ranges.





• Based on the number of events, will this change the future noise contours (which are used for noise mitigation package offers)?

The future noise contours and the compliance contours are both calculated as per the Airport's Auckland Unitary Plan Designation. This calculation method inherently takes account of both the number of noise events that occur and the magnitude of the noise level. These calculated noise contours are known as noise exposure contours.

This means that the events the noise monitors pick up (shown in the graphs above) are also those same events on which the compliance and future noise contours end up being based on. This means there is no need to reassess the noise mitigation package offers.

Also of note, compliance remains readily demonstrated at the measurement positions, and in the compliance contour calculations.

• What would be the course of action for anecdotal high noise levels supported by actual data?

There is no course of action as long as the noise levels are complying with the Auckland Unitary Plan limits. Currently the noise levels measured at Flat Bush are under the MANA 60 dB L_{dn} limit and the number of potentially disturbing noise events is typical (and as expected) for the monitor's distance from the airport.