

Memorandum

To: Aircraft Noise Community Consultative Group
From: Jeremy Lo
Date: September 2024
Subject: Airways Proposed Noise Reduction Initiative

1.0 Purpose

The purpose of this memo is to:

- inform the Aircraft Noise Community Consultative Group (ANCCG) of a planned procedure change for widebody aircraft departing on the Runway 05R Standard Instrument Departure (SID) between 2200 to 0700 (10pm to 7am).
- to present the due diligence completed by Marshall Day Acoustics (MDA) to ensure that this procedure change will not impact the overall community noise exposure or Auckland Unitary Plan compliance.

2.0 Background

The Current procedure for widebody aircraft departing on the 05R SID between the hours of 10pm and 7am is to remain on the SID route until reaching 5,000 feet before turning northward (Figure 1). Practically, this means that widebody aircraft departing to Asia and Australia between the hours of 10pm and 7am must overfly areas like Manukau City, Papatoetoe, and Flatbush before turning northward toward their destination. A change to this procedure was proposed by Airways at the June 2024 ANCCG meeting as part of the annual review of future noise reduction initiatives.

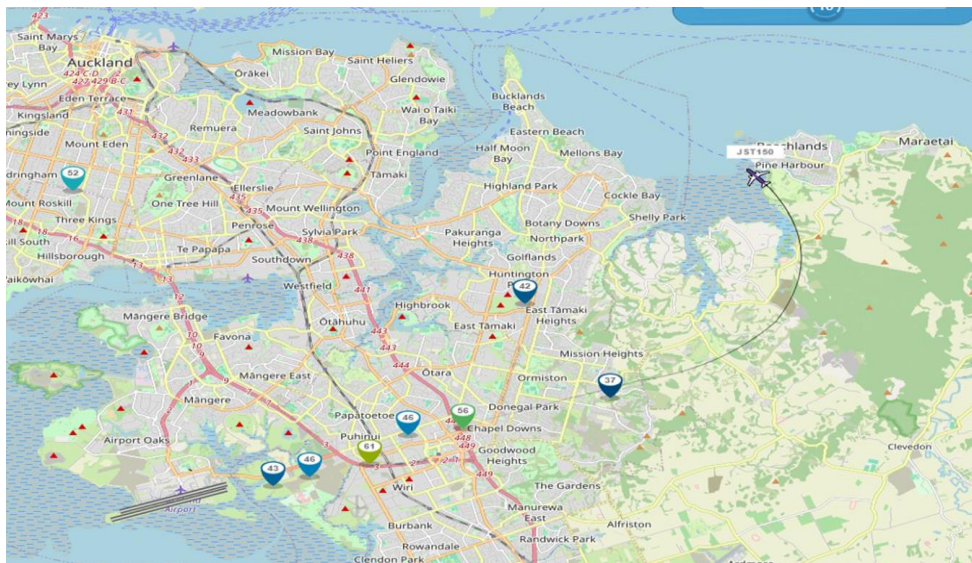


Figure 1

Auckland International Airport Limited (AIAL) has now completed the due diligence required to ensure that this procedure change will not impact the overall community noise exposure or Auckland Unitary Plan compliance.

3.0 Proposed Change

Widebody aircraft departing to Asia and Australia on the 05R SID between the hours of 10pm and 7am to be given clearance by Air Traffic Control to turn right at 500 feet and climb inside the Manukau Harbour remaining clear of built-up areas (Figure 2). This procedure is not new and is already in place for narrow body aircraft and some wide body aircraft during the day.

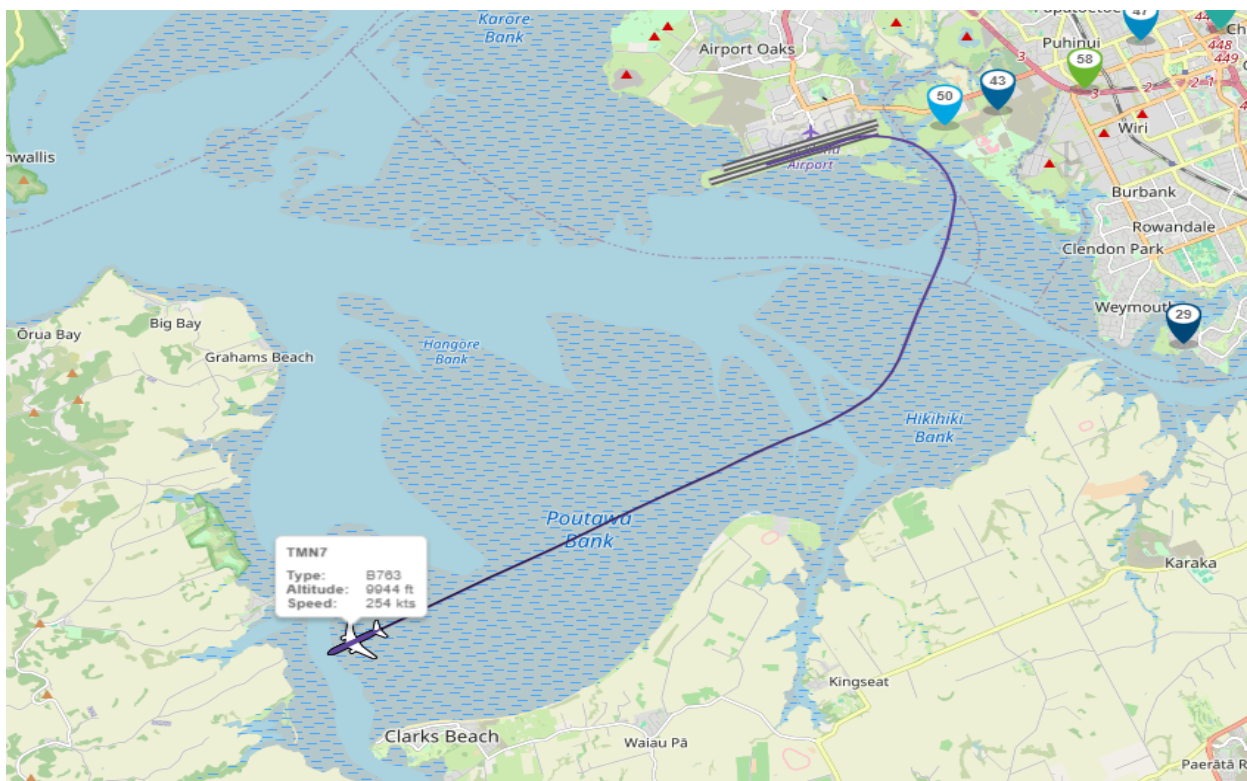


Figure 2

3.1 How many aircraft does this change impact?

On average Auckland Airport has a maximum of 6 widebody daily departures between 2200 to 0700. When we factor in that RW05 is in use 30% of the time and that only half of these flights will get or accept this procedure because of mitigating circumstances we end up with a yearly average of 0.9 flights per night.

3.2 What are the benefits of this change?

- reduction in noise over Manukau City, Papatōetoe, and Flatbush
- reduces fuel burn and the associated CO₂ emissions, because it reduces the departure track by 20NM.

4.0 What is the impact to overall community noise exposure?

AIAL has commissioned Marshall Day Acoustics (MDA) to complete a study to quantify the possible change in noise (For the full report see Appendix A).

MDA concluded:

- the proposed flightpath in operation will mean fewer wide body jets flying over residential areas at night. This means that residents will be exposed to fewer noisy Lmax events.
- that the proposed flightpath will have a very small impact on future compliance contours.

5.0 Next Steps

AIAL is supportive of this proposed noise reduction initiative based on the results of the MDA study and given the benefits for noise reduction, efficiency/fuel use and sustainability.

AIAL will work with Airways to formalise a plan to roll out this change.

Appendix A

Please refer to separate attachment: Proposed Flightpath for Large Jets Departing Runway 05