

Fact SHEET 3



**OVERVIEW OF THE
AIR NOISE CONTOUR
REMODELLING AND PEER
REVIEW PROCESS**



INTRODUCTION

On 1 September 2021 the Canterbury Regional Council (Environment Canterbury) formally requested that Christchurch International Airport Limited (CIAL) undertake a technical remodelling of the air noise contours relating to Christchurch International Airport (Christchurch Airport), as required by the Canterbury Regional Policy Statement (CRPS). CIAL was asked to provide the modelling inputs, assumptions, and outputs to be peer reviewed by an independent expert panel appointed by Environment Canterbury (the Independent Expert Panel).

In November 2021, CIAL and its experts provided a set of draft remodelled air noise contours to Environment Canterbury (the 2021 Draft Updated Noise Contours) and published the report *'2021 Christchurch International Airport Expert Update of the Operative Plan Noise Contours For Review By Environment Canterbury's Independent Expert Panel'*.

In May 2023 the peer review process concluded and a final set of remodelled air noise contours were produced (the 2023 Updated Noise Contours). The peer review process resulted in updates to several assumptions and modelling inputs used in the 2021 Draft Updated Noise Contours and resulted in changes to the shape and size of the 2023 Updated Noise Contours.



TIMELINE OF AIR NOISE CONTOUR REMODELLING AND PEER REVIEW PROCESS

The key dates of the project to update the Christchurch Airport air noise contours are illustrated by the following timeline:



The Independent Expert Panel review covered all aspects of the modelling work relating to all four workstreams. The peer review process was highly detailed and required a working relationship between CIAL's experts and the Independent Expert Panel over a period of approximately 18 months to ensure the 2023 Updated Noise Contours were based on the best available technical inputs and assumptions.

STAGE 1: PREPARATION OF THE 2021 DRAFT UPDATED NOISE CONTOURS

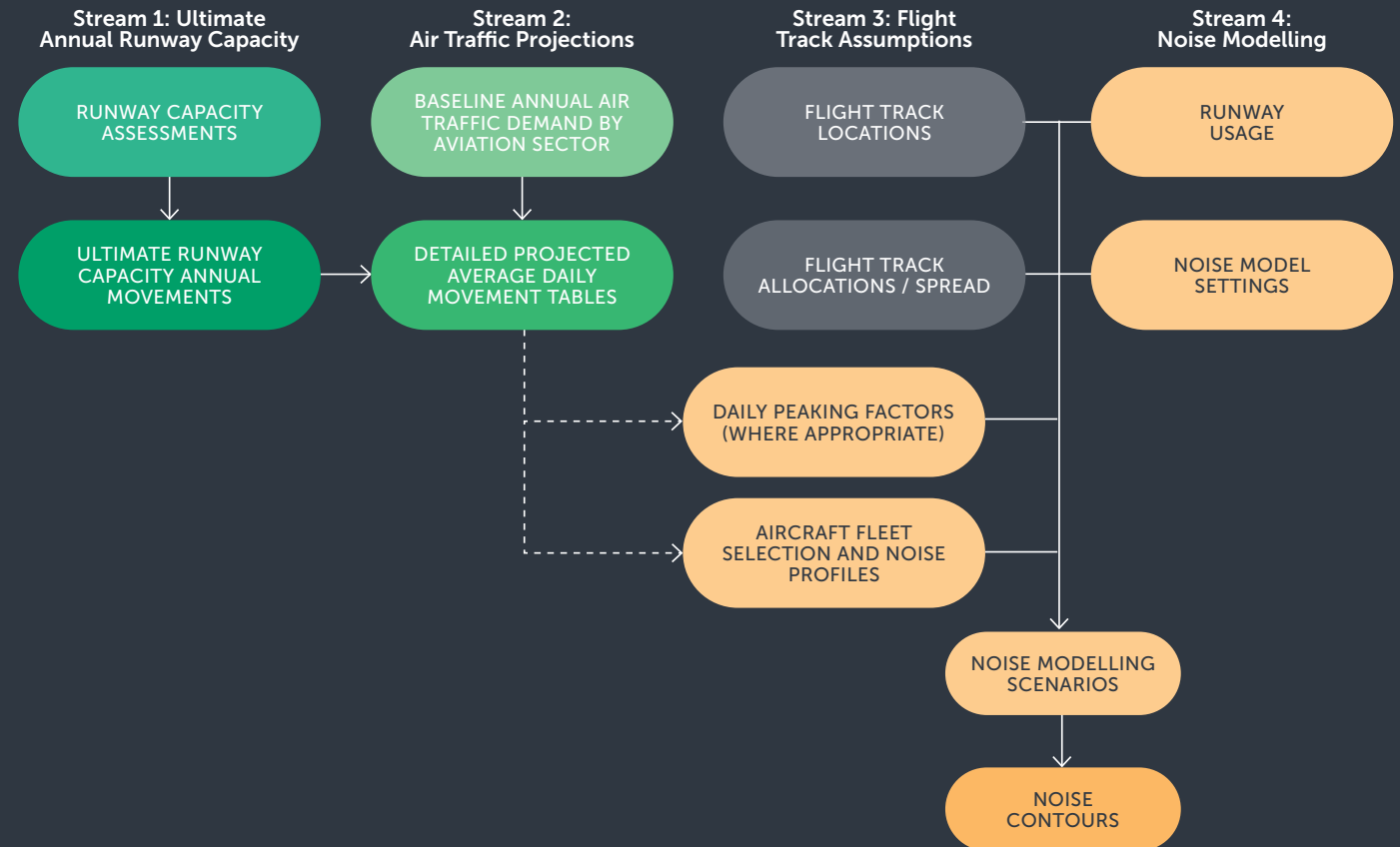
In anticipation of a request to remodel the air noise contours by Environment Canterbury, CIAL began the process of commissioning experts to remodel Christchurch Airport's noise contours in 2018.

CIAL's experts were from Marshall Day Acoustics, Airbiz, and CIAL. Consultation was held with Airways New Zealand (Airways), New Zealand's Air Traffic Service provider, and airlines that use Christchurch Airport. After being interrupted by COVID-19, the project recommenced in 2021.

Preparation of 2021 Draft Updated Noise Contours was structured based on four key workstreams, the outputs of which all interact to produce the air noise contours.

These are illustrated in the flow chart.

2021 Modelling Update Process: Expertise and Inputs



STAGE 2: PEER REVIEW OF 2021 DRAFT UPDATED NOISE CONTOURS

THE KEY STEPS THAT OCCURRED IN THE PEER REVIEW PROCESS WERE:

- **Submission:** The 2021 Draft Updated Noise Contours and associated technical reports (technical reports) were submitted to Environment Canterbury.
- **Preliminary Review:** Environment Canterbury appointed the Independent Expert Panel who were provided with the 2021 Draft Updated Noise Contours and associated reporting.
- **Initiation Meeting:** A meeting was held with the Chair of the Independent Expert Panel, who holds overall responsibility for delivering the Independent Expert Panel review, and CIAL and the Airbiz project management team. The purpose of this meeting was to discuss the administration of the peer review.
- **Initial Request for Information:** The Independent Expert Panel submitted an initial request for information in April 2022. This listed technical files that the Independent Expert Panel would need to review and provided questions from their initial review of the technical reports.
- **Request for Information Briefing:** The Independent Expert Panel met with CIAL, Airbiz and Marshall Day Acoustics to:
 - (a) make introductions;
 - (b) discuss the peer review scope, process, and timeframes; and
 - (c) to discuss the Independent Expert Panel's initial request for information.
- **Information Provision:** CIAL's experts provided the files and documentation requested. Where required, the Independent Expert Panel sought clarification from CIAL's experts.
- **Second Request for Information:** In June 2022 the Independent Expert Panel submitted a further request for information to CIAL's experts.
- **Information Provision:** CIAL's experts provided the files and documentation requested. Where required, the Independent Expert Panel sought clarification from CIAL's experts.
- **Initial Findings:** In July 2022 CIAL's experts received the Independent Expert Panel's initial review findings report (Initial Report). The Initial Report provided preliminary findings and recommendations for each of the four workstreams.
- **Iterative Technical Reviews:** Following the Initial Report, CIAL's experts iteratively addressed issues raised by the Independent Expert Panel in writing and in virtual meetings. This continued until all issues identified by the Independent Expert Panel were resolved.
- **Iterative Reporting Reviews:** The Independent Panel reviewed the draft reports prepared by CIAL's experts to confirm the methodology and assumptions were adequately explained. Again this was an iterative process - the Independent Expert Panel was given the opportunity to and did provide feedback on the reporting.
- **Interim Agreement on Contours:** In May 2023 the Independent Panel provided initial agreement on the assumptions, AEDT noise model inputs and noise contour line calculation process used to produce the 2023 Updated Noise Contours. The Independent Expert Panel's final findings will be provided in the Independent Expert Panel report expected to be released in July 2023.
- **Final Review Report:** The Independent Expert Panel will document its findings in a final report to Environment Canterbury which is expected to be released by July 2023.





STAGE 3: 2023 UPDATED NOISE CONTOURS AND TECHNICAL REPORTS PUBLISHED

This report presents the 2023 Updated Noise Contours and the technical reports prepared by CIAL's experts.

The Independent Expert Panel's final report and technical reports will be published separately.