

# Airport Noise Liaison Committee Report

*1 January – 31 December 2021*



Revision Schedule		
Revision No	Date	Prepared by
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# 1 LIST OF DEFINITIONS, ACRONYMS & AUTHORS

## 1.1 DEFINITIONS

Aircraft Operations	Also referred to as 'Operational Noise' (refer Section 6.1) <ul style="list-style-type: none"> <li>a) the landing and take-off of aircraft; and</li> <li>b) aircraft flying along any flight path associated with a landing or take-off.</li> </ul> For the purposes of Rule 6.1.6 Activity specific noise rules, it excludes: <ul style="list-style-type: none"> <li>a) aircraft operating in an emergency for medical or national/civil defence reasons;</li> <li>b) air shows;</li> <li>c) military operations;</li> <li>d) Antarctic operations;</li> <li>e) helicopter operations;</li> <li>f) aircraft using the airport as an alternative to a scheduled airport elsewhere;</li> <li>g) aircraft taxiing; and</li> <li>h) aircraft engine testing</li> </ul>
Noise Measurements	In-situ noise measurements of actual noise levels using either semi-permanent noise monitoring terminals or hand-held equipment (sound level meters).
Noise Monitoring	Monitoring of noise levels (generally with respect to assessing compliance with the Christchurch District Plan), using both noise measurements and calculated noise levels.
On-Aircraft Engine Testing	The testing of engine on aircraft.

## 1.2 ACRONYMS

AANC	Annual Aircraft Noise Contour
AIPNZ	Aeronautical Information Publication New Zealand
ANLC	Airport Noise Liaison Committee
ATC	Air Traffic Control
ATP	Acoustic Treatment Programme
CAA	Civil Aviation Authority
CAC	Canterbury Aero Club
CCC	Christchurch City Council
CHL	Christchurch Helicopters Limited
CIAL	Christchurch International Airport Limited
DP	Christchurch District Plan
GCA	Garden City Aviation
NMP	Noise Management Plan
NMR	Noise Monitoring Report
NMT	Noise Monitoring Terminals
PBN	Performance Based Navigation
SID	Standard Instrument Departure

## 1.3 AUTHORS

Name	Role
Leila Chrystall	Environment Advisor, Christchurch International Airport

## 2 STATUTORY REQUIREMENTS

In accordance with Rule 6.1.6.2.7.3 d(i) and (ii) of the Christchurch District Plan (DP) (see Appendix A), Christchurch International Airport (CIAL) is required to prepare an Airport Noise Liaison Committee Report by 6 March each year to the Christchurch City Council (CCC). This report must contain the following information:

- The composition of the committee.
- Summaries of the Committee's consideration of matters specified below:
  - Any community concerns regarding noise from aircraft operations and engine testing.
  - Liaison with, and provision of relevant information to the community.
  - The preparation, review and updating if required of the Airport Noise Management Plan (NMP).
  - The preparation, review and updating if required of the Acoustic Treatment Programme (ATP).
  - Complaints received over the previous year in respect of noise from aircraft operations and on-aircraft engine testing, and any actions taken in response to those complaints; and
  - Reviewing, and updating if required, the procedures associated with noise complaints received over the previous year.

## 3 COMMITTEE COMPOSITION

In accordance with Rule 6.1.6.2.7.3 of the Christchurch District Plan, CIAL established an Airport Noise Liaison Committee (ANLC) in March 2017. The committee is required to meet not less than twice annually. In 2021, the committee met on the 20<sup>th</sup> of May and 4<sup>th</sup> of November.

ANLC includes the following members:

Name	Role
Laurie McCallum	Chair
Linda Chen	Christchurch City Community Board Representative, Harewood Ward
Mike Wall	Christchurch City Community Board Representative, Waimairi Ward
Jason Middlemiss	Christchurch City Community Board Representative, Harewood Ward
Kirsten Rayne	Environmental Health Officer at Christchurch City Council
Justin Tighe-Umbers	Board of Airline Representatives
Shelley Millington	Board of Airline Representatives
Bruce Rule	Isaac Conservation and Wildlife Trust
Felicity Blackmore	Christchurch International Airport
Nick Flack	Christchurch International Airport

## 4 ANLC CONSIDERATIONS AND RECOMMENDATIONS

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In accordance with Rule 6.1.6.2.7.3 c(ii), (iii) and (iv), the ANLC may consider and make recommendations to CIAL on:

- Liaison with, and provision of relevant information to the community.
- The preparation, review and updating if required of the Airport Noise Management Plan (NMP) as required by Rule 6.1.6.2.7.1, and
- The preparation, review and updating if required of the Acoustic Treatment Programme and its implementation as required by Rule 6.1.6.2.7.2

In accordance with Rule 6.1.6.2.5 a(iii) (D) and section 6.1.2 of the Airport Noise Management Plan (NMP), the location of the Noise Monitoring Terminals (NMT) as required to verify noise measurements is to be decided in consultation with the ANLC.

### 4.1 AIRPORT NOISE MANAGEMENT PLAN

CIAL is in the process of updating the NMP. This document will be reviewed by the ANLC in early 2022 before being finalised. CIAL continues to manage Aircraft operations and On-Aircraft Engine Testing in accordance with the NMP.

### 4.2 ACOUSTIC TREATMENT PROGRAMME

In accordance with the DP, the Acoustic Treatment Program (ATP), has been prepared by the airport operator in consultation with the ANLC.

In accordance with Rule 6.1.6.2.7.2 b(i) Christchurch Airport is required to make offers for acoustic treatment or advice within 24 months of 6 March 2017. The initial offers of acoustic treatment and advice were sent to the applicable dwelling owners on 5 March 2019. f

Each year after 6 March 2019, within 12 months from the date, Christchurch Airport will formally offer acoustic treatment to dwelling owners as specified in the DP to any additional residential units that meet the requirements at that time. The 2021 AANC incorporates no additional dwellings compared with the 2020 AANC. This is because the 2021 AANC is smaller than the 2020 AANC.

In 2021, One property owner has accepted an offer of acoustic treatment and works have commenced to their property. The ANLC is also working with two other owners of properties that are entitled to full acoustic treatment, and four other owners of properties that are entitled to mechanical ventilation.

### 4.3 NOISE MONITORING REPORT

#### 4.3.1 VERIFICATION NOISE MEASUREMENTS

Rule 6.1.6.2.5a (iii)(D) of the Christchurch District Plan sets out that the calculated Annual Aircraft Noise Contour (AANC) shall be verified by noise measurements carried out in accordance with the Airport Noise Management Plan (NMP). Section 6.1.2 of the NMP states that verification measurements are to be carried out no less than every three years and the location of the Noise Monitoring Terminals (NMT) is to be decided in consultation with the ANLC. Noise verification measurements have been carried out by CIAL in 2017 and again in 2019, and therefore no further noise measurements were conducted in 2021. The

results of the noise verification process conducted as part of the work to prepare the 2019 Noise Management Report (NMR) remain valid.

Rule 6.1.6.2.6 (v) (B) of the Christchurch District Plan requires that Engine Testing calculations are verified at least once every two years. This work was last completed in 2019 and was repeated in 2021. The results will be included in the 2021 NMR, due to be finalised by early March 2022.

## 5 NOISE COMPLAINTS SUMMARY

In accordance with Rule 6.1.6.2.7.3 c(v) of the Christchurch District Plan the noise complaints summary below details:

- Complaints received over the previous year in respect to noise from aircraft operations and on-aircraft engine testing; and
- Any actions taken in response to these complaints.

All names and addresses have been omitted for privacy purposes.

### 5.1 AIRCRAFT OPERATIONS AND ON-AIRCRAFT ENGINE TESTING

Complaints have been grouped by the type of operation and aircraft, the actions taken for each complaint are included in the table. In summary, 30 complaints were received from 28 individuals during the period 1 January to 31 December 2021.

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Low Flying Aircraft	Jet	1	Complainant contacted CIAL about a Boeing freighter (767) that took off from Christchurch Airport on RWY 02 and flew a loop over the city before heading north-west, bound for Sydney.  Airways NZ confirmed that this flight path is often flown by jets wanting to gain altitude before crossing the Southern Alps when there is turbulence forecast or reported. Normally they turn to the west for the most direct tracking. The extra miles flown on this track gives the aircraft time to climb above the turbulence.
		1	Complainant was concerned about a jet that took off from Christchurch Airport to the east which they concerned not to be a planned route.  Airways was contacted and informed CIAL that RWY11 was used due the wind conditions. The complainant was told the use of RWY11 is rare but is necessary when extreme or unusual weather exists.
		1	Complainant contacted CIAL as they heard a loud humming/droning noise which they thought to be engine testing.  After investigation, it was found that no engine testing occurred at this time, however a flight NZ1010, Boeing (787), bound for Los Angeles took off around the same time. This information was relayed to the complainant and there was no further correspondence.
		1	The complainant was woken by jet landing during the night. They questioned whether the airport is operational all through the night as they are often woken around 1am.

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
			CIAL responded that Christchurch Airport is a 24/7 operation, therefore night-time flights occur. Weblinks were provided to CIAL's website for more information on aircraft noise and the Airport Noise Management Plan. There was no further correspondence received.
Low Flying Aircraft	Turbo-prop	1	Complainant was asking why the flight paths cannot follow the new southern motorway to reduce noise over Rolleston. CIAL replied with information about how flight paths are determined. There was no further response.
	Turbo-prop and Jets	1	<p>A complaint was made about low flying aircraft (turbo-prop and jets) over Ilam when coming into land on the cross-wind runway. The complainant asked for information on legislation and Council Bylaws that govern minimum height requirements for aircraft when they are over residential areas.</p> <p>CIAL informed the complainant that due to the strong north-west winds that were occurring, the cross-wind runway was being used more than usual, in addition they were provided with a link to the Noise Management Plan, and legislation from CAA regarding minimum aircraft heights.</p> <p>The complainant then requested evidence that flights on a particular day were meeting these regulations. Airways confirmed to CIAL that there was no evidence of any non-compliance with regulations, and this was passed on, and there was no further correspondence.</p>
	Unknown	1	The complainant registered several aircraft departures in the early hours of 30 <sup>th</sup> & 31 <sup>st</sup> July; however, they did not require a response from CIAL. There have been no further queries from them.
	Light aircraft	10	<p>Ten individual complaints were received regarding a low flying aircraft on the 22-28<sup>th</sup> of January. This noise was an Landpro aircraft commissioned by Environment Canterbury (ECAN) and Christchurch City Council (CCC) to undertake two types of aerial survey: LiDAR (Light Detection and Ranging) data, and aerial photography. Information regarding the aerial survey process was provided to the complainants.</p> <p>CIAL has recommended to ECAN and CCC that they provide prior notice of future aerial surveys.</p>
		1	<p>A complaint was made about a light aircraft flying over Marshlands around 1am. This flight was a NZ Flying Doctors service from Blenheim to Christchurch arriving at 1.10am.</p> <p>The complainant was provided with information about the critical service that NZ Flying Doctors delivers.</p>

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Flight Path Change (Divergent GOMA Protection)	All Aircraft	1	<p>Enquiry about flight path changes when aircraft take off to the south, and in particular are thought to be turning earlier over Yaldhurst. They also asked about the scope and legal framework underlying the path changes.</p> <p>CIAL sent correspondence outlining the changes to the 15/15 flight paths and provided more information around changes to flight tracks. There has been ongoing correspondence and a meeting will be organised with CIAL.</p>
	All Aircraft	3	<p>Three complaints were made over a week in November regarding aircraft taking off to the south on RWY20. The same complaint had been made in March 2021. The complainant suggests that the aircraft are breaching the noise contours and the noise is impacting the health and well-being of residence and animals in the area.</p> <p>CIAL responded with information about how noise from aircraft is modelled and compliance is measured. It was also suggested that CIAL meet with the complainant and with the Chairperson of the ANLC to discuss this complaint and the one from earlier in 2021.</p> <p>This occurred in December 2021, and communications are on-going with the complainant. They have been invited to attend the next meeting of the ANLC in the first quarter of 2022.</p>
	All Aircraft	1	<p>The complainant was concerned about an increase in aircraft noise over Hoon Hay recently. They asked whether flight paths have changed.</p> <p>CIAL responded to inform the complainant that the flight paths have not changed but outlined the two changes in aviation navigation (Performance Based Navigation) that have occurred at Christchurch Airport: the first: RNP arrivals (Required Navigation Performance) implemented in 2017/18 and the second: DMAPS (Divergent Missed Approach Protection System) in 2020.</p> <p>CIAL also noted that during this time the complaint was made there had been significantly more flights arriving and departing from Christchurch Airport, as Auckland moved out of Covid-19 lock down. Lastly it was explained how weather conditions influence flight paths used. No further correspondence was received.</p>
	All Aircraft	1	<p>A variety of different aircraft have been flying over complainant's home. They asked about flight paths and what weather conditions meant more aircraft were flying over their home.</p> <p>CIAL's response outlined the need to use the crosswind runway due to the north-westerly wind conditions. The complainant was appreciative for the explanation.</p>

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Engine Testing	Turbo-Prop	1	<p>This complaint was related to Engine Testing that occurred at 1.30am. This was a medium power engine test of a turbo-prop AirNZ aircraft. The engines were run at medium power for 1 min and idle power for 4 mins and was conducted at the ground run up pad adjacent to AirNZ Hangar 1.</p> <p>The complaint indicated the noise occurred at multiple times during that night which was likely also due to two separate flights arriving at Christchurch Airport (NZ Flying Doctors and Parceline freighter). Information about noise and engine testing was provided to the complainant.</p>
		1	<p>This complainant was concerned about Engine Testing noise that was occurring during the night-time and early morning, particularly over Easter. CIAL responded by outlining CIAL's engine testing procedure and the restrictions operated under.</p> <p>The complainant asked why some engine testing are carried out during the evening. There was a further correspondence explaining how planes are flying during the day, therefore some maintenance must occur at night. No further response has been received.</p>
	Unknown	1	<p>Complainant reported loud Engine Testing occurring when local school/daycare/kindergarten children would be outside. They suspected the noise was coming from the American Deep Freeze Aircraft and that it lasted at least 30 mins. After investigation, it was found that there was no engine testing occurring at this time. CCTV footage shows the noise was likely due to aircraft operations of the NZDF C130 and consisted of 20 mins noise between start up until take off.</p> <p>The complainant was satisfied with response from CIAL and stated that they do not have a problem with operational aircraft noise.</p>
		1	<p>This complaint was about engine testing during the night-time. The complainant felt like this was occurring often and wanted to know why engine testing is not done in the day instead. Investigations found that there was no engine testing at the time the complainant thought, however an AirNZ 787-9 aircraft landed around the same time so that could have been the noise source.</p> <p>In addition, CIAL provided details on the night-time engine tests that had occurred over one week in December. It was also outlined why some engine testing cannot be done during the day, as those aircraft are being flown then. There was no further correspondence.</p>
Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Unknown	Unknown	2	Two reports were received about continuous loud base-like music or an alarm for long periods over a Saturday night of a long weekend. They were unable to locate the source but thought it to be in Airport area,

			<p>and perhaps could have been an airport tenant’s security alarm. Armourguard noise control were involved but could not find the source.</p> <p>CIAL has responsibilities and compliance requirements of Airport operations and Engine testing. Investigations uncovered that the source of the noise was not airport or engine testing related, as such complainants were directed to talk to CCC Environmental Health Officers who are mandated to monitor and manage other noise sources or compliance issues.</p> <p>CCC Environmental Health Officers were aware of the noise that evening and it was surmised that the source was a function at Riccarton Racecourse. There was no further correspondence.</p>
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Ahead of each ANLC meeting, a summary of noise complaints and follow up actions are provided to the members. Committee members raise any queries or concerns as required in the meeting.

## 6 COMPLAINTS PROCESS AND REVIEW

In accordance with Rule 6.1.6.2.7.3 c (vi) of the Christchurch District Plan the ANLC may consider and make recommendations to CIAL on the current noise complaints process and procedures.

Section 7 of the Noise Management Plan details the noise compliant process and complaints register. To date, the ANLC is satisfied the Airport is following the complaints procedure as outlined in the NMP.

Outside of the NMP review process the ANLC approve of the process of pursuing a meeting with complainants where resolution has not been made via phone communications and/or email whenever possible. The ANLC will continue to provide feedback and/or give recommendations on methods to improve the process as required.

## 7 APPENDIX A: CHRISTCHURCH DISTRICT PLAN RULE 6.1.6.2.7.3

### 6.1.6.2.7.3 Airport Noise Liaison Committee

- a. Within 6 months of 6 March 2017, an Airport Noise Liaison Committee (the Committee) shall be established and operated by the [airport operator](#).
- b. The [airport operator](#) shall:
  - i. invite the following parties to appoint members of the Committee:
    - A. two representatives appointed by the [airport operator](#);
    - B. at least two members of Christchurch City Community Boards (as representatives of the community) appointed by the [Council](#);
    - C. one Environmental Health Officer appointed by [Council](#) (non-voting);
    - D. two representatives appointed by the Board of Airline Representatives of New Zealand; and
    - E. one representative appointed by the Isaac Conservation and Wildlife Trust.
  - ii. provide facilities and administrative support for the Committee in order that it can meet not less than twice annually.
- c. The Committee may consider and make recommendations to the [airport operator](#) on:
  - i. Any community concerns regarding noise from [aircraft operations](#) and [engine testing](#);
  - ii. Liaison with, and provision of relevant information to the community;
  - iii. the preparation, review and updating if required of the Airport Noise Management Plan as required by [Rule 6.1.6.2.7.1](#);
  - iv. the preparation, review and updating if required of the Acoustic Treatment Programme and its implementation as required by [Rule 6.1.6.2.7.2](#);
  - v. complaints received over the previous year in respect of noise from [aircraft operations](#) and on-aircraft [engine testing](#), and any actions taken in response to those complaints; and
  - vi. Reviewing, and updating if required, the procedures associated with noise complaints received over the previous year.
- d. The [airport operator](#) shall provide by 6 March 2018, and annually thereafter, a report to the [Council](#) regarding the following:
  - i. the composition of the Committee; and
  - ii. summaries of the Committee's consideration of the matters specified in [Rule 6.1.6.2.7.3 c](#).

Link to: [Christchurch District Plan Rule 6.1.6.2.7.3](#).

