

Airport Noise Liaison Committee Report

1 January – 31 December 2020



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"> a) the landing and take-off of aircraft; and b) aircraft flying along any flight path associated with a landing or take-off. For the purposes of Rule 6.1.6 Activity specific noise rules, it excludes: <ul style="list-style-type: none"> a) aircraft operating in an emergency for medical or national/civil defence reasons; b) air shows; c) military operations; d) Antarctic operations; e) helicopter operations; f) aircraft using the airport as an alternative to a scheduled airport elsewhere; g) aircraft taxiing; and h) aircraft engine testing
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
Jessica Royal	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 2020, the committee met on the 5th of May and 7th of December.

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
Nigel Grant	Team Leader, Environmental Health at Christchurch City Council
Justin Tighe-Umbers	Board of Airline Representatives
Bruce Rule	Isaac Conservation and Wildlife Trust
Rhys Boswell	Christchurch International Airport
Felicity Blackmore	Christchurch International Airport
Jessica Royal	Christchurch International Airport

4 ANLC CONSIDERATIONS AND RECOMMENDATIONS

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 POLICE HELICOPTER TRIAL

Between 17/02/20 and 20/03/20, the New Zealand Police trialled police air support, a helicopter commonly known as Eagle, from a base at Christchurch Airport, to understand whether it would be useful to have a permanent base in Christchurch to assist across the South Island. The movements were not controlled by Christchurch Airport except during take-off and landing from its temporary base at the airport.

4.2 DIVERGENT GO-AROUND AND MISSED APPROACH (GOMA)

The commercial aviation flight sector is moving towards planned and predictable procedures that allow Flight Management System support and the most recent procedure update is Divergent Go-Around and Missed Approach (GOMA) (informally referred to as 15/15 departures at CIAL).

GOMA is a flight path enhancement implemented by Airways and expected to be rolled out at major aerodromes across the country. It is designed to reduce likelihood of conflict between departing and inbound flights in the event of a missed approach. Site-specific GOMA procedures are developed; local topography, location of urban populations and climb profiles are all inputs in the design of the procedure.

In very simple terms GOMA results in departing aircraft making a 15-degree divergence off the centreline from departure, and in the event of a missed approach, the inbound aircraft makes a 15-degree divergence off centreline in the opposite direction (refer to figure 1 below for GOMA flight tracks). GOMA provides an increase in safety and predictability in the event of a missed approach and also provides for increase in capacity and more efficient use of airport infrastructure.

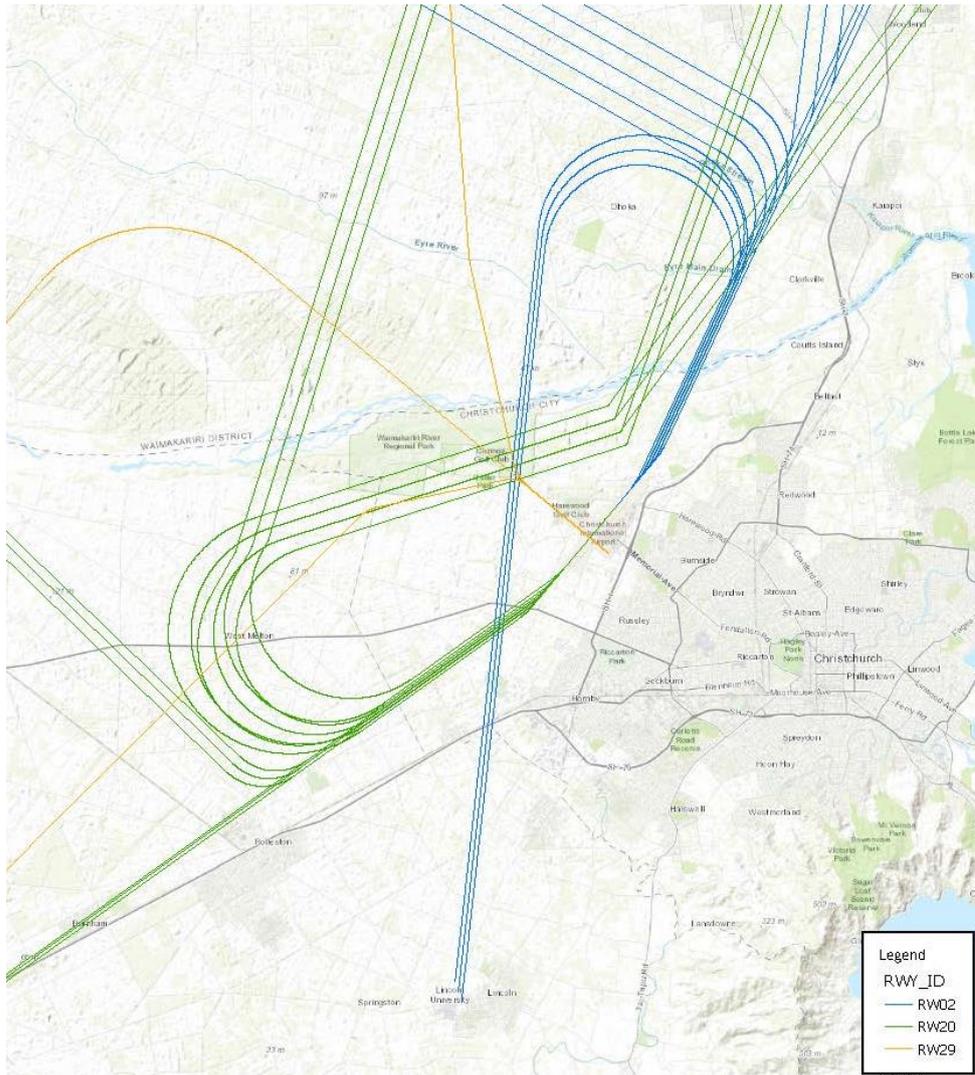


Image 1: GOMA flight tracks for RW02, RW20 and RW29 departures

Prior to the flight path change and as part of the approval process CIAL, Airways and Marshall Day Acoustics investigated the impact of GOMA on the annual compliance contour and on-going compliance. Investigations included updating flight paths in the AANC to include GOMA, calculating the "2025" AANC based on 2.1% per annum growth of the busiest three months of 2018. Investigations identified that compliance with the 65 dBA Ldn would be achieved.

4.3 AIRPORT NOISE MANAGEMENT PLAN

CIAL updated and finalised the NMP in May 2019. No further amendments to the NMP have been made in 2020. CIAL continues to manage Aircraft operations and On-Aircraft Engine Testing in accordance with the NMP.

4.4 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.

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 2020 AANC incorporates no additional dwellings compared with the 2019 AANC. This is because the 2020 AANC is smaller than the 2019 AANC.

4.5 NOISE MONITORING REPORT

4.5.1 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 decided in consultation with the ANLC. As CIAL undertook noise verification measurement in 2019, none were undertaken in 2020.

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 complain are included in the table. In summary, 20 complaints were received from 16 individuals during the period 1 January to 31 December 2020.

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Low Flying Aircraft	Jet	1	Complainant has contacted the airport on three earlier occasions (in 2019) regarding the new PBN flight path that avoids most of West Melton but is closer to any residents located further west of the main West Melton township. Complainant was called to explain the path and how noise is shared across all paths in this area. Complainant is understanding but displeased about the new path which she feels brings traffic closer to her home. On this occasion, complainant was concerned by planes overflying their home in the evening. CIAL provided screenshots of the flight paths of the day in question and the following morning to provide a visual reference to what is occurring. All flights between 5pm and 8am that transited near her home were following either visual approach paths or standard instrument procedures and not PBN routes so would be similar to what was experienced before PBN was introduced.
		1	Complainant contacted CIAL about an Emirates jet arrival that occurred under Covid alert level 3 when the airport began to experience a reduction in aircraft movements. He believed that due to the impending lockdown he should not be experiencing any noise. CIAL explained that the plane heard was a regularly scheduled daily flight that was still occurring at that stage but that due to COVID-19 traffic would be significantly reduced. As this complainant has previously lodged several noise complaints CIAL welcomed him to discuss his concerns with us post lockdown or over the phone. Complainant has not been in contact.

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Low Flying Aircraft (Contd.)	Jet	1	Complainant concerned about a low flying jet aircraft flying on the cross runway (11/29). CIAL explained that the flight was a regularly scheduled freighter taking off from the cross runway due Airfield maintenance works. Runway 02 was closed for 30 minutes which resulted in one flight requiring the use of the cross runway. The complainant responded to ask why the freighter took off towards the east (city side). CIAL explained that the freighter was unable to taxi to the other end of the runway due to the airfield works and that this was a rare event as freighters rarely use the cross runway but are permitted to do so if required. As this complainant has made a number of noise complaints, he was again invited to meet with CIAL in person or via video conference (due to COVID-19) but is yet to take up CIAL's offer.
		1	Complainant was concerned about a jet aircraft flying low over his property at night. CIAL called and left a message and then followed up with an email. CIAL explained that the jet was a Cathay Pacific B747 freighter diverted from Auckland Airport as they were undertaking Runway Pavement works at the time. CIAL shared Auckland Airport's media release for more information regarding the works. CIAL explained that the reason why the plane was redirected to depart from Christchurch Airport was that larger aircraft with heavy loads require a longer runway length for take-off. CIAL assured that this was an unusual occurrence for Christchurch Airport. The complainant responded to enquire about flight paths, noise contours and how the airport manages this. CIAL explained the role of the Christchurch District Plan, how this sets noise limits which the airport cannot exceed and explained that the contour sets limits of the amount of noise that can be generated but it doesn't set the flight paths themselves. CIAL went on to explain the variation in flight paths and provided a visual representation showing 1 days' worth of departures. The complainant was welcomed to get in touch with CIAL directly if he had any other queries or wished to discuss further. No further response has been received.
		2	Complainant was concerned about a low flying aircraft in the early morning. CIAL investigated and explained that the aircraft was a Qantas freighter which is regularly scheduled to depart at this time. However, it departed toward the north so quite far from the complainant's home. The aircraft was formerly a B767 and is now an A320 so CIAL suggested that this coupled with wind conditions may have caused the disturbance. The complainant was welcomed to get in touch with CIAL directly if she wished to discuss further or had any other queries. No further response has been received.
		1	Complainant was concern about a low flying jet plane and asked for more detail about the flight in question. CIAL investigated and explained that the aircraft was a Royal NZ Air Force C130 which completing a circuit over the western side of the city before landing onto Runway 20 in a Southerly/Southwest wind. CIAL explained that the flight was within CAA guidelines and provided the complainant with a picture of the flight path. The complainant was welcomed to get in touch with CIAL directly if she wished to discuss further or had any other queries. No further response has been received. No further response has been received.

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Low Flying Aircraft	Turboprop	1	<p>Complainant enquired about a turbo-prop aircraft transiting near her home. This complainant has contacted CIAL on several occasions and is generally displeased with aircraft operational noise.</p> <p>CIAL explained the nature of the flight, a turbo-prop flying from Dunedin to Christchurch and turning west of her home to land on the main runway. There was not anything out of the ordinary with this flight. CIAL explained the different regulatory bodies and rules which govern where planes can fly in the sky, covering the Civil Aviation Authority (CAA) flying rules, the Christchurch City Council (CCC) and the Christchurch District Plan (CDP) rules and; how CIAL demonstrates compliance to the CDP via the annual Noise Monitoring Report. CIAL also explained the variation in flight paths and the reasons for the variation. Similarly, CIAL included a visual representation of a full days' worth of flight path data to show that variation.</p> <p>The complainant was invited to meet with CIAL to discuss her concerns. The complainant is yet to respond or to take up CIAL's offer to meet.</p>
	Light aircraft	1	<p>Complainant was concerned by a small piper plane completing multiple passes near her home. CIAL found this that this event was in relation to the Mid Canterbury Aero Club Training school, based in Ashburton, where students are required to complete night flying training as it is a requirement to obtain their pilot's licence. Normally these flights are conducted in the Ashburton area however, night flying occurs around twice a month in Christchurch or Timaru during autumn and winter. Students to do a night cross country flight to experience a different flying environment in a well-lit city. The students are required to train in all types of conditions to ensure that they are competent in all situations. Where possible they restrict their flights over the populated areas of the city to finish before 11pm to avoid disturbing residents.</p> <p>Complainant was appreciative of the response and pleased to understand it was a rare occurrence.</p>
		1	<p>Complainant contacted the airport regarding a small aircraft completing circuits in the nearby area. CIAL called and followed up with an email with more information. CIAL explained that the noise was related to 4 piper planes from the Canterbury Aero Club (CAC) completing pilot training as part of the NZ Civil Aviation Authority's (CAANZ) requirements for professional pilots' licences. The CAC often complete training in this area however on this occasion there were a few compounding factors that may have contributed to the increase in noise. There were the students were engaging in one of their first lessons where students generally depart towards Selwyn (Lake Ellesmere) to learn to manoeuvre their aircraft by completing a series of turns and loops over the water using the spit as a visual aid and winds were tending North/ North west and between 15-35km/h so relative to the aircraft's location, the high winds were blowing directly towards the complainant home. CIAL also provided details regarding flying height rules to demonstrate that the flights were within CAA guidelines.</p> <p>The complainant was welcomed to get in touch with CIAL directly if he wished to discuss further or had any other queries. No further response has been received.</p>

Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Low Flying Aircraft	Helicopter	1	<p>Complainant concerned about a helicopter flying near his home for 16-30 minutes. CIAL explained that the helicopter in question flew multiple different flight paths in the afternoon and early evening and was a visiting iterant from Kaikoura Helicopters completing pilot training in a built-up area. CIAL explained that the operators that are based at Christchurch Airport are part of the neighbourhood friendly programme and are mindful of Christchurch residents and reduce holding times to reduce noise disturbance. This iterant was not aware of this programme as they do not normally fly in this area. CIAL explained to Mike that they would work with this iterant to ensure that they carry out more noise reducing activities when in the Christchurch Airspace.</p> <p>The complainant was welcomed to get in touch with CIAL directly if he had any other queries or wished to discuss further. No further response has been received.</p>
		3	<p>Complainant was concerned about a helicopter circling in his area. CIAL found that there were no helicopter movements on the day in question and called to inform the complainant. The complainant then explained that he would like the past few days investigated as he wasn't sure of the exact time or date. CIAL investigated and found that there were a few helicopter movements near his home including two rescue helicopters on different occasions and one Garden City Helicopter flight, but all were passes only with no apparent hovering.</p> <p>The complainant was welcomed to get in touch if he would like further investigation or had any other queries. No further response has been received.</p>
		1	<p>Complainant was concerned about multiple helicopters flying over his home during Saturday midday of Cup and Show weekend. CIAL explained that there were several scenic helicopter flights moving between Riccarton Racecourse and Hagley park. CIAL explained that this is a more common occurrence in Cup and Show weekend. On this occasion the flights were completed by an iterant not based at Christchurch Airport who was less familiar with the neighbourhood friendly policy. The iterant was operating from Christchurch Helicopters, and the Christchurch Helicopters team explained the policy to the iterant however there was 1 hour of time where flights were more frequent causing an increase in noise at this time. It was explained that this event occurs once a year and independent helicopter company are now aware of the impact of their operations on residents and will work to prevent this from becoming an annoyance in future years.</p> <p>The complainant responded to thank CIAL for the response.</p>
Flight Path Change (Divergent GOMA Protection)	Multiple	1	<p>12/05/20 - These complainants contacted the airport as they were concerned that new runway 20 departures have a significantly detrimental effect on their properties and business. The amended flight path tracks move aircraft closer to or overhead of their properties. The complainant asked to work with Airways, Airport and themselves to implement a change/amendment that would work for all relevant parties.</p> <p>Over the following 8 months, CIAL and Airways met with the complainant several times. Firstly, to understand the complainant's concerns and to explain in detail GOMA divergent tracks, their purpose, why they were</p>

			<p>implemented and the Aerodrome specifics which drive CIA GOMA divergent tracks. The ANLC Chair also met the complainant's as per CIAL noise disputes procedure and to assist with understanding and investigations of the complaints concerns.</p> <p>During the meetings the complainant put forward several alternative solutions to the published 15/15 GOMA divergent track, following from this both Airways and CIAL undertook thorough investigations into the proposed alternatives. Investigations identified the proposed alternatives were not viable for a number of reasons, principally they conflicted with the objective of GOMA divergent approaches to increase safety, predictability and efficiency of aircraft movement in the event of a missed approach.</p> <p>CIAL communicated findings of the investigation to the complainant and invited them to present to the ANLC and has not had any feedback.</p>
Type of Operation	Type of Aircraft	No of Complaints	Actions Taken
Engine Testing	Jet	2	<p>Complainant was concerned that loud engine testing during the day was negatively affecting her and her children at a nearby school. Complainant also contacted the CCC regarding this noise event. CIAL explained the details of the engine testing, an idle power C130 (USAP Skier Hercules) test that was run three adding up to 4 ½ hours. CIAL explained that this is a reasonably unusual occurrence and is largely the result of lack of maintenance over the COVID-19 lockdown period. The tests were all scheduled in day time hours and will continue to be so, where possible, as noise is particularly disruptive at night.</p> <p>CIAL explained that these aircraft are used to transfer supplies for the next Antarctic Deployment and explained the restrictions on engine testing as per the Christchurch District Plan. The complainant was welcomed to get in touch with CIAL directly if she had any other queries or wished to discuss further. No response has been received.</p>
	Turbo-prop	1	<p>Complainant was concerned about engine testing occurring early in the morning. CIAL responded to detail the several engine tests completed in the evening/ early morning of the day in. There were a number more engine tests than usual on this occasion as one aircraft was experiencing several faults that required additional engine checks. CIAL explained the type of maintenance that occurred necessitating the testing and the operational requirements for testing ahead of departures early in the morning. The complainant thanked CIAL for the response but is dissatisfied that any engine testing occurs at night/ early morning. There has been no further correspondence to date</p>
		1	<p>Complainant was concerned about engine testing heard in the early morning. CIAL investigated and explained the details of the engine test. CIAL explained that the prevailing winds likely played a part in directing the noise towards the city. CIAL explained the Engine Testing Management system (ETMS), the rules in the Christchurch District Plan and provided a link to view the ETMS tests on CIAL's public facing website.</p>

			The complainant was welcomed to get in touch with CIAL directly if he wished to discuss further. No response was received.
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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.

5.2 POLICE HELICOPTER TRIAL

CIAL received 13 complaints from 11 individuals in the community in relation to the police helicopter trial. All complaints received were responded to via call and/or follow up email explaining the trial, the rules the police helicopter is governed by and their complaints were passed on to the police to respond to directly.

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](#).

