# Aircraft Engine Testing Time Line

This background research document outlines the timeline articulating how for, in excess of 30 years, the most excessive air noise pollution at night has been enabled by CCC on behalf of CIAL and their aircraft engineering tenants Air New Zealand.

CCC have totally abdicated their statutory requirements relating excessive noise pollution enforcement, thereby providing a significant competitive advantage to that tenant and its own company CIAL, ignoring the adverse impacts on the land owners receiving that pollution and associated loss of sleep.

## Christchurch International Airport Engine testing Timeline.

Aircraft engine testing has taken place at the Christchurch International Airport (CIA) for over 30 years. It takes two main forms. The first is where the engine being tested has been removed from the plane and is tested in a purpose built building that has been designed to mitigate the noise and odour adverse environmental impacts. This relates largely to jet engines. These noises, since the building of the Ground Run up Enclosure has been mitigated from what had previously been very sever air noise pollution.

The second relates to the testing of engines that remain fixed to the plane. The plane is parked at the airport, initially wherever the airport manager saw fit and is throttled up and down as the test requires for long durations, often exceeding thirty minutes. This type of engine testing has been called “ground running” testing or “on wing” engine testing. It remains unmitigated at source.

It is this second form of engine testing that produces extreme noise, for long durations, usually at night, and in the small hours of the morning.It generates complaints from as far away as the Port Hills.

Christchurch City Council admits that for many years no records were kept of the number of these complaints, which were simply referred to CIAL and ignored.

CIAL also admits its failure to record these complaints.

It is true to state that this on plane engine testing has been and remains the largest source of air noise pollution impacting now on North West part of Christchurch and can be heard over very large areas of the City.

Despite this very significant, frequent and prolonged source of noise pollution and regardless of numerous complaints, Christchurch City Council (CCC), not only failed to require this activity to be mitigated but has actively stalled the addressing of this noise pollution over many years.

As recently as 2017 CCC worked actively against submitter group requests for at source mitigation, preferring a régime of engine testing contours, that re-victimises the noise recipients rather than requiring a ground run up enclosure be built that would mitigate the noise originating from these commercial activities.

I will now outline the CCC planning history relating to Engine testing.

**Pre 1989-** All engine testing at Christchurch International Airport was allowed by CCC without any regulatory rules at all. Given that CCC is the regulatory body that is tasked with policing adverse environmental pollution impacts this is perverse. Especially given that the noise impact of engine testing was very significant and was often carried out at night. A large number of complaints were derived from this testing but both CCC and CIAL failed to keep accurate complaint record. Certainly no mitigating action was taken.

**From the 18th of December 1989 up until 2017, engine testing noise was totally controlled by a By-Law written by CIAL unopposed by CCC which allowed engine testing to be carried out at such place and in such manner, as shall be approved in writing by the airport manager before the test commences. The only restriction was that engine testing could not take place between 2300hrs and 0600hrs, unless the testing is necessary to provide an urgent scheduled flight.**

**This exemption was routinely taken advantage of with virtually no objective scrutiny.**

**This régime only came to its still unacceptable modification following protracted submissions by myself and a submitter group at the Christchurch District Council Long Term Plan hearings in 2017. Both CIAL and CCC vigorously opposed the sought changes and any at source air noise mitigation. The By law régime had been commented on by Commissioner Paul Thomas in Plan Change 84 following my submissions to that Plan change. Judge Hassen agreed this should have led to the onus to mitigate at source falling onto the polluter. However CIAL and CCC offered up an engine testing contour regime in opposition to, at source mitigation submissions. Sadly no at source air noise pollution mitigation has resulted. But I am getting ahead of the time line so will return to that what I find to be stalling process that precluded this current state of pollution enabling land planning outcomes.**

**In 1996** possibly realizing the inappropriateness of this engine testing activity being completely controlled by the above By-law, CCC initiated Council Decision Number 5 as part of the proposed new City Plan. It was titled:

**Provisions for the Control of Noise.**

At 1.1 of that decision document under the heading Terms of Reference the following is articulated.

The decision relates to submitters and further submitters who seek decisions on the following policies and rules in the proposed City Plan:

**Volume 2, Statement of Objectives, Policies and Methods**

**Policy 4.2.8** "To achieve a low ambient level of noise in the City and the Protection of the environment from noise that can disturb the peace, comfort or repose of people to the extent that this can be controlled by limiting levels of sound."

**Policy 4.2.9** "To set down ambient sound levels, based on the existing satisfactory sound levels, taking account of the receiving environment, with requirements for compliance with such levels."

**Policy 4.2.10** "To provide maximum sound levels to enable uses emitting noise to design activities to reach the desired ambient levels, and recipients to protect themselves against such levels."

During this process a large number of submitters opposed Airport Engine testing activities due to the very significant adverse noise impact it generated, especially at night, where it adversely impacted on sleep. Most called for the activity to be controlled seeking at source noise mitigation if the activity was to be allowed. There was a real public expectation that at last the issue would be correctly addressed by CCC.

Council reporting officers Mr. R Nixon Team Leader (City Plan), Mr. T Moody Principal Environmental Health Officer and Mr. R Malthus Environmental Health Officer addressed airport engine testing at CIA, specifically in their officer report's to this decision, number 5, recommending limits to the noise levels that engine testing generated.

In their view, it was very clear that this was the appropriate place for this excessive noise pollution issue to be addressed.

One reason was that Section 326 of the Resource Management Act defines "Excessive Noise" as "any noise that is under human control and of such a nature as to unreasonably interfere with peace, comfort and convenience of any person (other than a person in or at the place from which the noise is being emitted) but does not include noise emitted by any-

(a) Aircraft being operated during or immediately before or after flight; or
(b) --------

Hence the Act contemplates excessive noise from the normal operation of aircraft **immediately before or after flight**, such as landings and take off, and provides a specific exclusion aimed at enabling the core airport activities of landings and take

offs**. However, it is very clear that the exclusion does not extend to excessive engine testing noise arising from the distinctly different engineering activities.**

This is an important point as engine testing is an activity that generates "excessive noise" and is subject to the need for mitigation, if it is to be allowed at all. CCC town planners are well aware of this and as the regulatory body tasked with controlling excessive noise saw Council Decision Number 5 as the correct way to address it.

What actually happened is, suddenly and after evidence relating to engine testing had been heard, the hearings panel Council Chairman Councilor COX, in my view perversely, decided to remove engine testing noise from the scope of Decision 5. The reason cited was "due to the Council's position as major shareholder in CIAL, and the need for related submissions on the airport to be dealt with together" (page 2 point 1.2 of the Decision Number 5 Council Decision document).

As one of the submitters at the time, I can advise that this totally disempowered submitters, who for many years had suffered disturbed sleep due to engine testing activities.

Had the Council suddenly realized it owned CIAL, or was some other influence brought to bear on this decision?

Interestingly, Kenneth McANERGNEY, CIAL Airport Planner at the time, addressed the Hearing Panel with regards to CIAL's further submissions in support of Air New Zealand Engineering Services Ltd and the Board of Airline Representatives of New Zealand (BARNZ) on matters relating to noise provisions of the proposed city plan.

His evidence is particularly enlightening.

At point 6 he states:

"At *CIA a*ircraft maintenance, operations are carried out most nights of the week on aircraft involved in scheduled domestic and sometimes international movements. These procedures often involve aircraft being tested on the completion of various types of maintenance work."

At point 7 he states:

“In years gone by, the testing of aircraft after such maintenance procedures referred to as “ground running”, often resulted in complaints being made to the Airport Authority, the Airlines concerned, the Control Tower, the Rescue Fire Service and in fact anyone connected with the Airport who would pick up the phone. I have been told that on some occasions the Airport Director at that time, Mr. Hugh McCARROLL, was often rung late at night and roundly abused by people who were annoyed by what seemed to be unneeded, unwarranted, endless running of aircraft engines.”

There is no doubt therefore that the level of complaints engine testing activities generated were very significant.

The reality is that engine testing, especially that carried out at night, still generates complaints, but most are aware that CIAL and CCC simply take no action at all, believing their commercial activities are more important than their neighbors’ sleep.

Now comes what I believe to be the real reason why engine testing was removed from the scope of Council Decision Number 5.

At point 10 of his evidence, McCarroll points out the importance of the large dedicated, highly trained team of aircraft engineers stating “It goes without saying that the income derived by the airlines concerned for this work is not inconsiderable. A large part of this income then contributes to the economy of the City of Christchurch.”

At point 12 he continues “If for any reason this aircraft maintenance work could not be carried out in Christchurch it would have to be done in Auckland and this would be a great loss in terms of employment and income for the City of Christchurch.”

Having set the commercial impact scene he then states at point 23 of his submission to the panel, the following.

“It is also my opinion, that the noise rule as proposed in the Planner’s report is unnecessarily restrictive as it would not permit some engine testing which currently takes place” What had been proposed was a maximum noise level of 49dBA at night which would allow for sleep, but certainly not engine testing even at idle levels, let alone full power testing as desired, and actually taking place.

Finally, in his summary Mc Anergney recommends to the Hearings Panel that this particular matter be placed to one side and dealt with when the matters relating to the Airport, its zone, its designation, its impact on the surrounding area etc., is dealt with at a later time.

The CCC Hearings Panel and the CCC Councilors that made up that panel ignores all the submitters pleas for at source mitigation, its own Officers Report, and simply removes the matter from the scope of Decision Number 5.

CCC who controls Plan Change scoping decisions uses its power to remove this obviously in scope noise pollution topic from the scope of what was the appropriate plan for the matter to be addressed.

Clearly, the commercial value of the activities associated with airport engineering and subsequent engine testing won over the CCC Hearings Panel. The fact that the CIAL’s neighbours would have to put up with further sleepless nights was simply discarded.

As a result of this decision the status quo remained with engine testing continuing as it had done for many years.

It is important to realize that this testing occurred very frequently. I refer you to the a table of engine testing between 2300 and 0600hrs from January 1996 until November 1996 that was actually produced by McAnergney in this hearing It shows, that in that year engine testing took place at total of 310 times.

There were 121 occasions where engine testing for periods between 10 to 20 minutes took place and 104 other occasions where engine testing took longer than 20 minutes, in fact for as long as required, often for well in excess of an hour.

In the month of May 1996 there were 49 engine testing occasions. Five were 0-5 minutes duration, 10 were between 5-10 minutes, 13 between 10-20 minutes and 21 were in excess of 20 minutes duration.

This air noise pollution took place between, 2300hrs – 0600hrs, and all totally under the sole discretion of the Airport Manager.

(Source: Table of Ground Running 2300-0600 only January to November 1996) produced by Kenneth McAnergney CIAL Airport Planner at Appendix Four of his submission to Christchurch City Plan Decisions Number 2)

Complaints from as far away as the Port Hills were received.

CCC, the regulatory body, tasked with monitoring and requiring mitigation of excessive noise pollution and its impacts, showed no sense of urgency at all in carrying out either of these regulatory roles.

**September 1998: Council Decision Number 2**

**Christchurch International Airport and Airport Noise Issues**

It takes a further two years, of interrupted sleep, before engine testing is briefly discussed again, this time in September 1998 in Council Decision Number 2. This decision relates to a number of CIAL desired planning changes, with engine testing awkwardly tacked in amongst those.

As pointed out by Robert Nixon Team Leader, (City Plan) at point 1.2 of his Officers Report on Submissions to this decision, titled City Plan Hearings Committee CIA and Airport Noise Issues, it was decided that because the City Council is the major stakeholder in CIAL, and Council staff consulted with CIAL during the preparation of the rules, it was considered necessary to appoint a commissioner to hear these submissions (and subsequent hearings involving the airport, including requested urban rezoning).

David W. COLLINS, acting as Hearings Commissioner, was appointed by CCC to hear and report on these matters. Hearings were completed on 21 September 1998.

In Plan Change 2, the following terms of reference are set, allowing the next round of failure to address engine testing excessive noise:

**Terms of Reference of Plan Change 2**

**Policy 6.3.7** (Part 6, Urban Growth- page 6/9

"To ensure that urban growth does not occur in a manner that could adversely affect the operations of city airports"

**Policies 7.8.1, 7.8.2** (Part 7, Transport – pages 7/20, 7/21)

7.8.1 "To provide for the effective and efficient operation and development of Christchurch International Airport."

7.8.2 "To minimize nuisance to nearby residents through provisions to mitigate the adverse noise effects from the operations of the Christchurch International Airport."

**Policy 13.3.1** (Part 13, Rural - pages 3/13, 13/14)

"To ensure development of dwellings takes into account the impacts of the operations of Christchurch International Airport, particularly noise effects."

(In addition some general submissions summarized under the "Statement of Issues" (Volume 1) and under "Urban Growth" (Volume 2) relating to the International Airport are dealt with here.

**Very noticeably the terms of reference did not specifically state that this plan change would determine engine testing noise issues. Also the original submitters to Council Decision 5 complaining of engine testing noise issues were not individually notified. Engine testing noise had effectively been sidelined.**

Council Decision number 2 is 63 pages long; the summary of main changes recommended fails to even mention engine testing and certainly makes absolutely no changes to the then status quo with regards to this issue.

It is very interesting to identify the few points that were made, in the main document, relating to engine testing, which I submit clearly exhibits the bias favoring CIAL that was at work.

At points 2.47, 2.48 and 2.49, 2.50 the following comments were made by this Commissioner:

2.47 “Another alternative, or part alternative discussed at the hearing was the possibility of imposing limits on the noise generated by the airport. This was raised by several submitters. There is an obvious logic in requiring the generator of any adverse environmental impact to address the issue. The matter was not fully argued at the hearing because there was no submission specifically seeking imposition of such controls.”

Obvious logic stated by the Commissioner but simply not progressed?

2.48 “It can be noted however that the New Zealand Standard NZS6805:1992 “Airport Noise Management and Land Use Planning” is firmly based on the dual approach of controlling development around airports **and** controlling the total amount of noise generated by each airport. Witnesses such as Mr. Goodwin from National Environment Noise Service and Mr. Fletcher from the Board of Airline Representatives of New Zealand expressed strong support for the principles of the standard but had not appreciated that the Proposed City Plan does not in fact address the second issue.

Why not?

In my view, given the huge issue engine testing noise has been over a number of years, the fact that this proposed city plan did not address the controlling of the total amount of noise generated by CIA, is yet another example of CCC simply ignoring this issue in favor of the development aspirations of the company it owns.

2.49 Collins makes the following comment relating to airport generated noise: “It will be more than 10 years before growth in air traffic will make this an issue so it can be argued that this matter can be left for the next city plan. But in my

assessment there is an important principle involved. The New Zealand Standard envisages a two-handed approach: the air noise boundary and the outer control boundary are to be set on the basis of projected traffic (numbers and types of aircraft), but once set these boundaries are also intended to act as limits on airport noise – the airport is not to generate more than 55dBA Ldn at the outer control boundary. In my assessment people affected by airport noise and special restrictions will be more accepting of these if there are reciprocal controls on the airport."

Yet no noise limit controls are actually set and the CIAL provided projected air traffic movements are simply accepted. These have proven to be hugely exaggerated.

2.50 As already noted, no submissions sought such a rule in accordance with the NZS 6805 recommendations so no decision is required now. I do recommend, however that if at any time before the next district plan review a variation or change to this plan in relation to airport noise matters is initiated, consideration be given to implementing the other fundamental part the of NZS 6805 approach.

The perfect opportunity to address the noise generated by engine testing is put aside and stalled for a further ten years. All the focus of Council Plan Change 5 then returns to development restrictions around the airport as desired by CIAL and totally away from the desires of its neighbours to have uninterrupted sleep at night. No mitigation at all is even considered.

Having raised the two arms of the NZS 6805 Standard, CCC had a duty to ensure both were enabled. CCC simply walks away from the duty it has to act without bias, and further stalls the entire engine testing noise is this time for a proposed 10 year period.

Returning to the Council Decision 2 document at page 25 point 3.12, two important policies are discussed.

Policy 7.8.1 "To provide for the effective and efficient operation and development of the Christchurch International Airport" and

Policy 7.8.2 “To minimize nuisance to nearby residents, through provisions to mitigate the adverse noise effects of the operations of the international airport”.

These two policies are expressed jointly and share the same explanation and reasons, however only the first policy is ever emphasized and action taken to implement its intent, policy 7.8.2 is totally avoided and its intent time and time again fails to be implemented.

Returning to the decision document relating to Council Decision number 2 at point 3.12

Interestingly, CIAL made further submissions trying to have Policy 7.8.2 altered to relate only to “new” nearby residents (refer point 3.17 Council Decision Number 2 page 26-27) this was accepted in part with the following comment. I certainly accept that the primary impact of the policy will be on new residents, but it is not exclusively so. Accordingly, I recommend that the decision sought be accepted in part by amending the explanation and reasons for the policy to make it clear that the policy is primarily aimed at minimizing nuisance to new residents but will also have some impact on existing residents.

A point arises here relating to due process in the operation of these hearings. It is often broken by CCC, in allowing the frequent further submissions, originating from CIAL.

Further submissions are only permitted to either support or oppose an existing submitter’s point. Such submissions are not permitted to have totally new intentions introduced into the debate. However, in this example the Independent Commissioner not only allows this “new” word that totally changes the intent of Policy 7.8.2 but partially allows it. Further evidence of bias is exhibited.

I raise this point just to show the levels CIAL go to in altering definitions word by word while trying to avoid any requirement to actually mitigate engine testing noise at source.

At point 4.72 of Plan change 2 a submitter D.R. Hean argues for a purpose built facility to mitigate on aircraft engine testing. Commissioner Collins makes the following comments.

“I believe from the evidence provided that CIAL should install some sort of structure to battle engine testing, when it is practical to take aircraft to such a facility. The question now though is whether this should be a requirement of the plan.”

He then, sadly, goes on to say “I am also concerned that the evidence did not provide me with a sufficient technical basis to define the nature of the structure which would be required. Consequently, while urging CIAL to seriously consider making the investment in a suitable structure to contain engine testing noise (in addition to the ANZES facility for testing jet engines removed from aircraft) I recommend that this submission be rejected.”

So it was up to this poor submitter to design the appropriate facility was it? All the Commissioner had to do was require CIAL to provide an appropriate facility to mitigate excessive aircraft engine testing noise. But no that was simply not going to be an outcome on this Commissioners watch was it?

At point 4.78 submitter: B. Tewnion’s, submission is commented on by the Commissioner: “The submission specifically complains about aircraft testing and CIAL’s alleged indifference to noise problems and states “ … they could not have cared less…”

Mr. Tewnion’s submission does raise the importance of controlled engine testing at the airport, and together with others, counters the liberal provisions sought by ANZES, but as no specific change is sought to the text of the Plan, I recommend it be rejected.

At point 4.79 other submitters, Yaldhurst and Districts Association and Federated Farmers, states that the Airport Company is creating the noise hazard and;

“Why should they be able to run aircraft for long periods at the west end of the north-west runway with no effort to prevent noise or fumes, or, on those quiet

north-west airs or still days when any aircraft noise can be heard all over the city, that they should stop testing altogether".

The Commissioner makes the follow comments, "the safe operation of aircraft is inextricably linked to maintenance activities and the need to ensure aircraft are safe for the travelling public means that testing cannot be suspended during particular climatic conditions. I have discussed the possibility of a structure being erected to baffle noise at paragraph 4.72 above. I recommend that this decision sought be rejected.

The dismissive tone adopted by the Commissioner towards submitters relating to engine testing noise mitigation is obvious. He ignores the large number of submissions relating to the requirement to mitigate the noise pollution the engine testing activity generates. He makes absolutely no enforceable recommendations at all requiring CIAL to do anything. As a result the 1998 By-Law enabling engine testing remains unchanged.

CIAL continues on wing testing as it sees fit. To this day no noise mitigating structure for off wing testing has been built. CCC has abdicated its responsibility to ensure this excessive noise hazard if it is to be allowed at all, is mitigated in a reasonable and real manner.

Sections 9 and 32 of the RMA require land owners rights to be recognized and where regulatory intervention is justified, a balancing of these land owners' rights with the needs of others, in this case CIAL's. This balancing is absent.

Excessive noise pollution from the engine testing activity is ignored by CCC the regulatory authority tasked with policing such pollution. Why?

Council Decision 2 resulted in absolutely no change of then existing behaviours being imposed on CIAL with regards to engine testing noise pollution. No mitigation of engine testing noise at all was required.

The decision also removed the ability of any of CIALs' neighbours to have the engine testing noise matter revisited until a variation or new city plan was initiated. Plan Change 84 should have provided the next opportunity to do so.

I will now explain how CCC planners again moved to stall the ability of submitters to do so.

**On Monday the 22 of Jul 2013 Plan Change 84 is advertised by the Strategy and Planning section of CCC**

The following explanation is contained in the web based advertisement under the following heading.

**Plan Change 84 Review of the Special Purpose (Airport) Zone**

A plan change is proposed to provide a clear policy framework for managing development in the Special Purpose (Airport) zone (SPAZ), and will **review** the activities permitted within the zone. Particular consideration will be given to decisions on resource consents for non-airport related development in Dakota Park, the precedent these have set and the inappropriateness of an ad-hoc approach to further non-airport related development.

A series of six questions along with the answers is then outlined under a heading

**Frequently Asked Questions.**

**Q1: What is proposed Plan change 84?**

Christchurch City Council is reviewing the provisions in the City Plan for Christchurch Airport land, and is proposing a plan change to clarify objectives, policies and rules in the Special Purpose (Airport) Zone.

This proposal is referred to as Plan Change 84.

**Q2: Why is Plan Change 84 needed?**

The Special Purpose Zone in the current City Plan is for activities clearly associated with the operations and associated function of the airport and aviation. However, over time the airport has evolved in scale and the range of associated activities. Non-airport-related activities have been granted consent to operate, particularly since 2009 and in the Dakota Park development.

There is a need for clarity on permitted activities.

Christchurch International Airport Limited is concerned that there is not enough certainty around future development of airport land.

**Q3: What does the proposed Plan Change aim to achieve?**

The key elements of the proposed Plan change are to provide:

Clear objective and policy statements to guide future use of land.

Clear separation, of activity areas within the zone based around aviation activities (e.g. runways), terminal activities and freight-service activities.

Specific rules limiting activities within the activity areas.

**Q4 What does the proposed Plan Change not cover?**

Airport operations, e.g. takeoffs and landings

Airport noise

Use of the land surrounding the airport area.

A CCC Town Planner, who I have identified, decided to remove airport noise issues from Plan Change 84. I made an immediate objection to this decision. Clearly, this is a variation to the existing plan and in fact a plan change, therefore, airport noise issues, especially those activities generating noise in the SPAZ should have been included. Only CIAL and CCC stand to benefit from its exclusion.

Despite requests, no reasonable explanation for removing airport noise issues from the scope of Plan Change 84 has been given by CCC.

I made in depth submissions at the PC84 hearing relating to airport noise issues and engine testing specifically. *I made it very clear that I did seek this pollution to be remedied by way of mitigation.*

Noise is fundamental to all issues arising from CIAL development aspirations. It uses the world's harshest noise sensitive activity exclusion level of 50dBA under

air noise contours, to limit all of its neighbours development aspirations. An activity noise restriction level used nowhere else in the world but approved by CCC. It continues to expand the activity restrictions imposed on adjacent land owners. Enjoys absolutely no CCC required noise restrictions on its own business activities within the Airport Purposes Designated land yet is the Districts major source of air noise pollution originating from its commercial engine testing activities with total immunity from prosecution by the regulator of this pollution CCC.

It is very clear that airport noise issues should have been addressed in the section 32 Evaluation Report. They certainly were in the section 42A report.

At Point 41 page 14 of the Commissioner decision on PC84, he finds "that noise provisions within the SPAZ are within the scope of this decision and I agree with the section 42A report, which describes the relevant noise considerations as

"Whether the plan change generates additional noise effects for neighbour's and whether the uses proposed within the zone are suitable in terms of the airport noise environment"(Para 5.18 s42 report)

The fact remains that putting aside additional noise effects, current engine testing noise has simply not been addressed.

At point 44 he states "It is anticipated that updated provisions relating to aircraft engine testing will be inserted into the Plan in the near future" I understand this to mean that this will be addressed in the Replacement District Plan either by way of policies and rules or conditions on the designation.

Yet another stalling move, this time to not address engine testing noise in PC84 the current process, as it is going to be addressed in the future. Is a decade of stalling not sufficient?

From research I determined that one reason why no conditions on engine testing applied to the designation and /or the SPAZ was because the matter is addressed in the Christchurch International Airport By-laws Approval Order 1989. This is an Order in Council under the Airport Authorities Act 1966. Section 52 is headed

“Stationary engine testing”. This limits circumstances where testing can occur between the hours of 2300 and 0600 hours, but seems to provide considerable flexibility as to where testing is permitted to occur with accountability to the “airport manager” rather than the Resource Management Consent Authority.

It was my submission that advised the hearings commissioner of this fact. The reasons why this by-law still remains have been detailed in this document. It was clear and eventually accepted by CIAL that they had repeatedly breeched this by-laws conditions especially with regards to the requirement to report to the airport manager on the reasons for engine testing between 2300hrs and 0600 hrs. Again CCC the regulator of air noise pollution simply watched on taking no action at all about complaints other than referring them to back to CIAL.

CIAL have refused to mitigate engine testing noise within their existing designated boundary despite early advice from Commissioners to do so. CIAL lobbying and CCC process assistance has repeatedly, stalled any move to have this excessive noise mitigated in a manner that requires its company to take action.

At point 46 of the Commissioners report to PC84 he states

“The further legal submissions from CIAL addressed the scope issue in relation to trade suppliers, as did the reply from Mary O’Callahan, but neither commented on the engine testing issue. **“I consider that it is inappropriate for an activity with significant potential noise effects such as engine testing to be controlled only by way of a 1989 By-law.** PC 84 should have been an appropriate vehicle to address this matter, if it is accepted that the home for this is the SPAZ as opposed to the designation which is what is currently inferred in section 13.2.8.”

At last a Commissioner that gets it. Alas no.

At point 47 he states

“Having said this, addressing this now through PC 84 does not meet the tests of the Motor Machinists case and PC 84 has been explicit that this will be addressed in the “near future”. I therefore, find that this is out of scope of PC 84 but it adds

further weight to the need for the SPAZ/designation to be revisited as part of the Replacement District Plan process.

The point here is that if CCC employees corruptly, or mistakenly, exclude noise issues from the scope of PC 84 when very clearly they should not have excluded, it becomes a circular argument for the Commissioner to find the matter to be out of scope, citing case law such as the Motor Machinists case.

The fact is that engine testing even though it is an activity occurring in the SPAZ has been ruled to be out of scope of PC84.

While this could have been appealed costs to lay submitters become prohibitive. It submit it is this power imbalance that enables the bad behaviours

Engine testing noise mitigation is then again stone walled until 2016 in the Replacement District Plan Process.

Christchurch City Council Replacement District Plan Hearings 2016- 2018:

A group of submitters including myself made a submission that to this process requesting that at source mitigation should be the first form of mitigation before land planning processes such as CIAL proposed engine testing contours were considered.

What then transpired was eighteen months of litigation and hearings with the following outcomes.

Judge Hansen the Chair of the Hearings panel, before he recused himself from Airport related hearings, required CCC to engage an independent acoustics expert following our submitter Group establishing that CCC had relied solely on Marshall Day acoustics data over many years. Marshall Day acoustics is the acoustical firm CIAL has engaged also over many years. CCC has failed to recognised let alone mitigate that Expert evidence conflict of interest. For the regulator to simply accept the expert engaged by its company and not test those assertions objectively is a governance failure, yet the Holding Corporation Board has been totally silent on the matter.

For example Marshall Day has asserted that aircraft engine testing is not an industrial noise activity, which should be measured by a stricter Leq metric. Days s stance was that he preferred the Ldn metric, and then for the absolute benefit of his client CIAL Day has created an Ldn seven day rolling average in the makeup of that metric. This metric actually averages the air noise pollution over the entire number of hours across a week; hence the polluter gains a benefit from this measure when no engine testing is taking place that can then be used to average down the noise impact over the hours engine testing is taking place.

CCC has allowed this perverse measure to remain totally unquestioned.

When forced by the Judge to engage an independent acoustics expert that expert Dr. Chiles advised CCC that this was an inappropriate metric confirming the evidence of Professor CLARKE the internationally renowned aircraft noise expert our submitter group had engage.

CCC failed to modify its stance and continued to rely on Marshall Day's opinion in contempt of the Judges directions.

CIAL supported by CCC then refuted expert evidence from Prof CLARKE that the level of technology in the field of Ground Run Up Enclosures (GRE) had reached the stage that virtually any level of noise containment could be obtained and that a four sided GRE at an approximate cost of $10million would almost completely mitigate the entire on wing engine noise including the more aggressive noise from American military aircraft servicing Antarctic Operations. The noise enforcement agency was now promoting noise pollution on behalf of CIAL, a disgrace.

The following quote is from CLERKES evidence to the hearings panel on 16 February 2016. At point

43: CIAL has proposed the use of a 7 day rolling average DNL that shall not exceed 65dB at five engine testing compliance monitoring positions (ETMCPs).

44: There is no basis for this metric in the acoustics literature, and thus no way for anyone to judge a priori whether ground run up noise (on wing engine testing) noise that satisfies the proposed limit will be acceptable. In fact, it would be

unwise for any entity, especially a public entity, to utilize a metric for which there is no basis in scientific literature.

45: Ground run-up noise would be better managed through a local noise ordinance as would be applied to any industrial noise. Such local noise ordinances generally use a shirt term measure of noise exposure such as Equivalent Noise Level Leq, or percent of time above a noise level such as noise level exceeded for 50% of the time. The time period used for noise ordinance compliance is usually in the range of 15 minutes to 1 hour, capturing just the run up-noise and not averaging the run up noise over 24 hours or greater with a night penalty.

This world leading experts' advice is ignored.

Given that the profit Air New Zealand and CIAL make annually is in the hundreds of millions of dollars this air noise pollution mitigation opportunity should present as a minor one off normal business cost of the highly profitable aircraft engineering business. Unfortunately they prefer to regularly disturb the sleep of literally thousands of their neighbours in the small hours of the morning and seek even more draconian engine testing land use restrictions of the very victims of that noise pollution.

As if using this Ldn seven day averaging matric was not sufficient Air New Zealand, CIAL and CCC all then seek that the loudest noise source, the American Planes servicing Antarctic operations be exempted from any noise calculations, and the introduction of engine testing land use restrictions that when first presented covered most of the city.

The outcome has been that our submitter group was successful in having the By-Law found to be totally inappropriate. Also a total noise level has been achieved with a measuring requirement placed on CIAL with regards to engine testing has resulted. However as indicated the measuring metric is one that very significantly enables the offending polluter, is not appropriate for industrial noise and includes the total exemption from the process of the loudest actual pollution. No at source mitigation, the statutory required standard for offending polluters is mandated.

Perversely the victims of this pollution are then further victimised by new restrictions on their land use being applied via new engine testing activity restriction contours.

Ten million Dollars would build a four sided Ground Run up Enclosure that would allow not only the engine testing activity for all aircraft but undisturbed sleep for all of CIALs neighbours. CIAL, Air New Zealand and CCC the air noise pollution regulator all lack the will, to provide or require this mitigation and are complicit in the continuation of what is the worse air noise pollution in Canterbury.

The fact remains that Section 16 of the RMA requiring every occupier of land to adopt the best practicable option to ensure that the emission of noise from that land does not exceed a reasonable level is being breeched. The ground Run Up enclosure is the best practicable option and the only one that mitigates this pollution at source as required by this section.

This then is the timeline to 2021 there having been no change from 2018

In Canterbury big business is protected from mitigating air noise pollution by the very regulator of such pollution CCC. The competitive advantage is perverse and has been exhibited by the closing of the Nelson ATR engineering and the movement of that business to CIA. Nelson Council had required engine testing noise mitigation, CCC enables it. As a direct result Nelson lost the business.

In our view this is an actionable commercial competitive advantage example.

The systemic provision to CIAL by CCC of land use planning and pollution enabling advantages, to the detriment of land owners living under the air noise and engine testing contours is perverse and will no longer be tolerated.

D.M. Lawry

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