

## Senate Inquiry Supplementary Submission: Aircraft Noise Mitigation

### AN OPEN LETTER TO SENATORS

Dear Senators:

I commend to you the submission of Brisbane Flight Path Community Alliance and the volunteer efforts of their hard working team which has been instrumental in inspiring this long overdue inquiry. It is no accident BFPCA is based in Brisbane, the most complained about airport in Australia.

BFPCA is arguably the most effective and important advocacy group in Australia for those thousands of residents who have been harmed by aviation noise. BFPCA's useful library of resources contain a wealth of material about aircraft noise issues in Brisbane, much of which is generalizable to other airports in Australia. I am grateful to them for the unhappy education this material has provided. Without resources like theirs, citizens would have no voice at all.

Equally importantly, I commend to you the submissions of those many members of the Brisbane community who felt strongly enough about this issue that they took the time to write to you and attend the public hearing. *Their moving stories are just the tip of an iceberg of human suffering that has been deliberately ignored by policymakers, and for which they have currently no meaningful redress.*

Now that this issue is finally being exposed through your inquiry, I hope their very real distress and harm remains at the forefront of your minds, alongside the aviation and tourism industry's expressions of sympathy, promises for action without any goals or timelines or with any credible evidence of previous effectiveness, and economic catastrophising about the notwithstanding need for 'business as usual'.

*This letter is my plea for you to recommend much more than a cautious tinkering with the current system, or rest content with assigning blame, or merely requesting further 'investigations' and reports which will cause multi-year delays and yet more engagement theatre. It is finally time to face the obvious contradictions and failures of current regulatory policy in order to propose something more logical and effective.*

Harms are sometimes trivialized as shown by the Virgin's representative at the public hearing who joked that noise disturbances were a "Netflix rewind issue" to him. Alternatively harms are acknowledged but proposed as being inevitable, with the assumption that therefore we have to accept them (as per submissions of Mr Brent, Mr De Graff, and Mr Chamier) or that economics is clearly more important than noise harms (as per the Tourism industry) which therefore imply they are too important to regulate.

We don't merely accept chemical pollution as such a necessary price of progress that we should avoid regulating it. Why is the considerable harm of aviation noise any different? The more valid narrative is that the means to dramatically reduce aviation noise harms exist, but the will to apply and fund them has so far been conspicuously lacking.

In this country there is a deliberate regulatory vacuum around aircraft noise which, unlike other types of non-emergency operations causing noise impacts on the public, can be of any loudness, frequency, or occur at any time. "Without any maximum level set out in legislation or regulation, there is no objective measure to determine whether any

aircraft flying in Australia is 'too noisy,' or whether the combined load of aircraft experienced by a community is 'too much' noise."

This regulatory vacuum is due to the government's and industry's fear of the restrictions that *effective* noise regulation might impose on their dreams of unimpeded profitable expansion. It also allows airlines and airports to effectively ignore almost all the considerable social and medical and environmental costs of the noise and particulates emanating from their operations, and prevents any potential legal challenges to them arising from these. Some airports like Sydney and Gold Coast have gained limited curfews through political horse-trading, but others like Brisbane have not.

The harmful effects of aircraft noise are well researched beyond any reasonable doubt. They have been well documented in other submissions. Noise from low flying aircraft at levels known to affect health affects tens or hundreds of thousands of people in Brisbane and at other Australian airports, and is soon to be fully unleashed on the unfortunate residents in Western Sydney.

The known serious harms include sleep disturbance, cardiovascular and other chronic diseases, depression, loss of productivity, impacts on children's learning and development and so on, even apart from the likely unacknowledged affects of the high-energy low-frequency components of aircraft noise that are not currently properly measured or considered. That is in addition to the frustration and loss of quiet enjoyment in living under or near a flight path with frequent, loud, unpleasant noise interruptions.

If merely a fraction of this research is valid, aircraft noise is a serious public health issue that affects hundreds of thousands of its victims, and is potentially costing the economy tens or hundreds of billions. This cost has been completely ignored in the one sided economic impact studies justifying its imposition. These *clearly* flawed studies are better viewed as a desperate attempt to prop up the official industry narrative of 'too important to regulate'.

Brisbane Airport Corporation acknowledged that the regional 'loss of connectivity' claimed in headlines (based on a commissioned one-sided economic impact study on the effects of a curfew which was performed by an economic advocacy group was unlikely since they could (but did not consider to) prioritize regional flights during key daylight hours. I suspect other figures used in this study are wildly optimistic and based on a static rather than adaptive response to a curfew, and ignore likely effects of automation on (often low paid casual) job projections. BAC has so far declined to release this study, which we know ignores any benefits of a curfew against the inflated costs claimed. But their figures and assertions are accepted by the Government without question.

In a clear breach of a reasonable duty of care, and in the face of a considerable body of published evidence, neither CASA nor the Department nor the Parliament has commissioned any research into the potential of harms from aircraft noise with a view to establishing appropriate evidence-based limits to its imposition on Australian residents by aircraft under its direct control. This is can be described as the deliberate ignorance of potentially inconvenient evidence against plans for the unimpeded growth of a highly damaging form of transportation so as to avoid planning for appropriate alternatives to or impose precautionary limitations on aircraft operations.

Submissions generally fall into two camps. One from residents, community groups and environmental groups calling for some reasonable duty of care from the government, and those with a clear business interest in maintaining the unrestricted expansion of aviation, regardless of its actual harms to hundreds of thousands of residents.

Some submissions have suggested that the inquiry should broaden its terms of reference to include the economic benefits of this aviation expansion, which is analogous to a similar suggestion to balance aircraft safety against the very considerable costs of maintaining this safety. No one is stupid enough to propose that we should ignore safety due to the costs of maintaining it. But noise harms?

The question I would put to those who made this proposal is, "Who pays the costs and who gains the safety"? This suggestion arises from a short-sighted, selfish and over-narrow conception of the meaning of aircraft safety which fails to consider anything more than the interests of the direct beneficiaries.

In Australia, this kind of thinking exemplifies the primacy of politics over reason, evidence, or any reasonable duty of care to the public. Aviation uses the successful playbook of 'big tobacco' with the same tactics of denial, lobbying and deflection in order to delay reform by decades. They have been astoundingly successful, and the government has avoided even a timid application of a precautionary principle when it comes to public health, given the credible potential scope and magnitude of aircraft noise harms.

For example, the vital importance of proper sleep is acknowledged by the same government, whose studies report that sleep problems conservatively cost the economy over \$60b annually, a likely dramatic underestimation. Yet sleep disturbance by aircraft is simultaneously completely condoned, even encouraged. Regulations about noise 'disturbance' exist for almost all other industries and activities, but not for aviation.

The effect of loud night time noises on sleep is complex. Noises that simply wake someone up can cause sleep fragmentation that interferes with a healthy, four-stage sleep cycle. But even noises that do not awaken people can affect the sleep cycle by extending the first stage of light sleep — normally the shortest stage — and reducing time spent in restorative deep sleep and REM sleep. Aviation noise is believed to boost production of hormones such as adrenaline and cortisol that can make sleeping more difficult and cause long term disease impacts and shorter lifespan.

Up till now attempts have been made to 'manage' noise 'impacts' (the depersonalised term officially used to describe harms) through a unhappy combination of:

(a) by ignoring any assessment of their nature and prevalence of harms or their extent through a proper evidence-based approach as to their thresholds and types, and

(b) by modifying a deliberately limited set of operational parameters (aircraft operations being the cause of noise) without any specific goals and timelines and moreover while, at the same time, ruling out *any* significant limitations to these aviation operations. Or alternatively by pretending that noise certification of aircraft types at import prior to operation has any correlation with the actual noise experienced by residents.

(c) through a kindergarten-inspired avoidance strategy of "sharing" the harms. Would this be an acceptable solution for PFAS contamination? Try proposing it and see. Aircraft noise is arguably an equally significant public health issue.

Any rational review of evidence shows these approaches approach have not worked. Logic dictates they can not conceivably work in the future, given projected traffic increases.

The Chair of AAB basically admitted this at the public hearing in Brisbane on the 15<sup>th</sup> April but then repeated the fallback of the industry mantra of aircraft noise as an 'inevitable nuisance' and even proposed he would like to continue to implement more 'marginal gains', directly after acknowledging these have so far had no effect. Any reference to potentially effective measures such as operational restrictions was scrupulously avoided, presumably since the Minister had forbade him to discuss these.

One assumes that even the pro-aviation government recognises that their avoidance approach to noise mitigation must fail, and they need to work correspondingly harder on social engineering to promote its acceptance. Their unethical and community-divisive fallback strategy seems to be to "share the noise". The term "sharing" inspires comfortable feelings at odds with reality here. Sharing the presumed 'inevitable' noise creates a pretence of caring about the hapless victims of known and preventable harms imposed for an alleged but completely undefined public good (which has never been justified with transparent and inclusive cost-benefit studies).

People participate in this sham and community-divisive scheme because they will do *anything* to reduce the fatigue and hurt of constant noise pollution, even to the extent of causing harm to someone else. Noise "sharing" has the full support of the airlines and airport as they no longer need to apply resources to address actually *reducing* noise, even as they increase traffic.

In Brisbane, this "sharing" strategy is a key element of the so-called *Noise Action Plan* run by the conflicted government business, AirServices (paid over \$1b annually by airlines), which is severely constrained in how they can use operational measures at their disposal to effectively reduce noise. One of the primary constraints is the airport's location and runway orientation. AirServices minor tweaks to operations are of no practical significance in noise reductions, but 'sharing' makes great engagement theatre.

Residents claim the new runway development was imposed on them with 'promises' that have since not eventuated, due primarily to the over optimistic (and borderline fraudulent) set of assumptions and caveats used by the airport to sell the NPR to the public, while they decommissioned the less 'operationally efficient' cross runway that might have alleviated some of the noise problems. Reports from that era show the main inspiration for the NPR was for operational efficiency and traffic expansion, not for noise abatement as improbably claimed by the affable CEO of the Airport Corporation at the public hearing.

The airport admits creating an 'expectation gap' but now blames AirServices for not operationalizing flight space in the essentially impossible way they 'assumed' was possible, without due diligence. So citizens are asked to wait another decade till the problem is 'fixed', even while the airport has not even made a serious effort to incentivise quieter planes because Mr De Graff claims doing so is 'complicated' because it does not fit their charging model.

But this is partly a distraction. Let's acknowledge the importance of continuing to seek cumulative marginal gains in noise mitigation through the modification of some

operational procedures and fleet renewal with quieter aircraft etc. (noting that the quoted percentage figures are misleading as to the real decrease in sound intensity).

*But let's stop pretending that the sum total of these marginal gains in noise abatement are a realistic solution to the critical nature of this problem, given their glacially slow implementation (along with acknowledged failure to achieve anything in the past), all the while in the face of ever-increasing traffic. There comes a time when keeping hope alive with a failing strategy becomes nothing more than deceptive.*

Why is the current approach doomed to fail? The current 'operational' approach is like creating a recipe by specifying the cooking method but omitting all reference to ingredients.

*The fundamental problem of aircraft noise impacts on the community arises from frequent low altitude aircraft overfly of populated residential areas. Changing a few operational parameters to get a 1dB reduction here and there will not remove the noise problem, one year at a time, as traffic increases 3+% one year at a time.*

First, aviation operations are highly technical and complex. Further, operations have to be responsive in real time, so the only people who can realistically manage noise impacts through operational means are flight path managers, airports and airlines working together. That means that industry is effectively self-regulating noise.

Second, as noise is merely one aspect of operations, it naturally gets relegated to a minor place due to the consideration of potentially conflicting aspects such as safety, fuel efficiency, flight paths, weather, scheduling, traffic management, and so on. Clearly from the industry's operational perspective, many of these will be more urgently prioritized than will noise mitigation, which gets shunted to the bottom of the "nice to do if convenient and cost-free" list.

*While the harms and costs of aviation noise can freely be socialised onto citizens using the current noise mitigation paradigm, there will be no significant reduction of noise through operational tweaks that are subservient to other consideration.*

The framework within which this approach has become the established norm is due to an immense but unspoken paranoia about the potential effect of direct noise restrictions on industry profits, accepted by policy makers who have not apparently considered both the costs and the benefits of such an approach and who instead appear to rely on the misleading and one sided economic impact studies commissioned by industry stakeholders without proper scrutiny as to their assumptions and omissions, or even whether they use the correct methodology to assess public costs and benefits.

It's time to change the paradigm. *Policy decisions about noise mitigation should be properly informed by establishing appropriate evidence-based noise limits that are defined by acceptable levels of harm, and then working out the best practical ways to implement these.*

*As I noted in my main submission (9), I acknowledge the importance of air safety. But only when the definition of aircraft safety is expanded from merely the aircraft itself to include the safety of all those potentially impacted by its operation (as is the case in almost all other industries), and its potential harms are properly acknowledged, will an inclusive and socially responsible focus on aviation safety become the paradigm. Social licence will not*

*have to be bought by fraudulent consultation schemes where the industry centred outcome is pre-determined.*

Any reasonable person will conclude that if you keep increasing air traffic levels (as projected), and additionally add drones, other unmanned flying vehicles, air taxis and so on to the aviation mix, that the current paradigm will collapse under the weight of its ever more complex and illogical framework, and this will lead to a more dramatic loss of social licence and become ever more difficult to remedy.

The existing framework is also a clear case of inequity, because the people who currently pay the highest (largely unacknowledged) costs of the current regulatory avoidance strategies are not the people who generally gain the most benefit from having an almost regulation-free industry in respect of its major harms of noise and pollution.

In contrast, regulating noise directly has the advantage that it is clear, evidence-based, and the industry would be forced to use their considerable technical expertise to help manage noise, instead of being optionally requested to consider it after fulfilling all other operational requirements. There is no other form of noise regulation that is likely to be effective in the long-term for the proper environmental and social governance of the aviation industry.

But we can safely assume it will not happen due to the lobbying for and comfort and apparent safety of continuing the current ineffective (but profitable) strategy of tinkering with operational parameters. I assume you will be forced to work within this paradigm of regulating noise indirectly through aviation operations.

The most promising option left for any real noise reductions is for more careful consideration of direct restrictions. I acknowledge Mr De Graff's assertion that curfews and caps are a 'blunt instrument' to reduce noise harms, but they are blunt precisely because they fall within the inefficient operational paradigm that industry likes to use for noise management. They have favoured this approach because they have so far been able to seemingly comply with it, even while sidestepping any meaningful controls on their freedom of operations.

The advantage of direct operational restrictions on noise is that, unlike the other minimally effective actions which have been proposed and unsuccessfully tried, they actually limit noise albeit through an ineffective and inefficient hammer. And there are economic consequences.

*But there is no other practical short-term solution that can actually reduce the already unacceptable noise harms in the face of increasing traffic.* That is why many infelicitously sited airports around the world have been forced to accept them and yet operate successfully.

Brisbane's noise problem has moreover been *directly* caused by its airport's over-ambitious construction of the NPR using misleading data and untested assumptions (such as assuming tailwind relaxations without even asking the pilots) in order to override public opposition to its relatively recent construction. This airport does not warrant special exemption from normal ESG considerations in its ambitious pursuit to be the Detroit of Australia, with citizens under flight paths as the collateral damage that they can ignore, due to regulatory 'exemptions'.

Curfew and cap restrictions are moreover fully in line with the ICAO international guidelines, since ICAO's three preferred strategies to create any noise mitigation have so far failed over the years since the new runway opening (viz. reducing noise at source, planning, and modifying operational procedures). This failure is clearly evident in Brisbane and it is backed by objective data. Any attempts to convince residents of a miracle breakthrough in the near future by continuing the existing approaches are not credible. TRAX reports will not solve the problem of low noisy residential overfly. Their previous recommendations have not been implemented in any case.

There remains the necessary task for the Inquiry to recommend an evidence-based review of noise harms and their extent, followed by a comprehensive and transparent analysis of the present and future costs of various adaptive direct operational restrictions to inform the nature and extent of the restrictions.

These analyses should include *both* sides of the ledger and their be assumptions made clear and effectively justified. The direct and indirect subsidies and benefits that the industry enjoys, courtesy of the taxpayer, as well as the *public* portion of benefit of their necessary operations should be properly included, as should the social and health harms and other social and public costs of the currently unrestricted operations.

There is also an ethical dimension of the need for preventing known noise harms that has so far been entirely ignored in favour of technocratic obsession with operational and capital efficiency, and the materialistic focus on profits from building an aviation empire. We have to ask for whose benefit and at whose cost?

I understand that airports are an important part of the infrastructure for economic development and connectivity. If airports spend multiple billions (privately funded, so as to avoid governments doing it), it is acknowledged that the investors who supply funds expect a return on investment. I understand that businesses need to make a profit and they prefer minimal restrictions on doing so. But this exercise should not be misleadingly promoted or have serious negative consequences for public health.

If indeed the research on the health impacts of aircraft noise is substantially correct, and if aircraft noise at rather serious levels (above those levels used in most health research), affects 50,000+ people in Brisbane - that would be a very conservative number - and if 1% of these people eventually developed or exacerbated a chronic condition so as to cause their incapacity or early death, then we're assuming 500 people who are killed, maimed or seriously damaged by current policies, not to mention those 49,500 others who merely suffer a *massive* degradation of their life quality and productive and happy work and educational lives.

Of course these casualties are anonymous and hidden compared with the headline grabbing impact of a plane crash, and the outcome is perhaps not so devastatingly certain, but the analogy is not far-fetched. Aircraft noise is a serious health and economic drag on any community.

Even though the utilitarian approach to public safety is fairly well established in Australia, it is important to acknowledge that there should be limits on what harm can be imposed for the alleged public benefit. The extreme harm and distress to the public from airport operations is currently socialised and depersonalised so as to avoid much cognitive dissonance for policy makers and perpetrators, who think of the unfortunate

victims as statistics about populations suffering noise impacts, and how to maintain 'social licence'.

I acknowledge the importance of aviation to Australia's economy, jobs, businesses and the travelling public (of which I am a part), and particularly to those who live in the more remote regions of this land. I acknowledge also the expertise and capital employed by those industry businesses and experts who make safe air travel possible.

But we don't want this convenience to be at the expense of our health and sanity when there do exist more immediate practical solutions. We are done with three years of fruitless engagement amid vague promises for marginally quieter aircraft (that will in any case require decades for complete fleet renewal), or for suggestions about the imminent success of a miracle operational strategy that has not worked in the past. Please stop clutching straws and focus on known effective solutions.

There will be a need to spend serious money to fix the problem that has for too long been ignored, including a likely redevelopment of some airport and runway infrastructure, and relocating freight flights to areas outside capital cities, or providing viable alternative means of transport, at least for relatively short haul flights. But that is a long term plan. Hong Kong might be an example of a better design model where most flights can arrive or depart over the water, away from residents. It was obviously better planned and remains public infrastructure.

Our government has instead chosen to privatize the operation of airports and then place the costs of infrastructure back on the companies operating these airports. Clearly, private operators will focus more on cost minimization and profit maximization, especially as noise harms can be legally ignored. If the government chooses this approach to aviation management, it has a parallel responsibility to make sure that citizens are protected.

In Brisbane, our 'expectation gap' with failure of the government to protect citizens against the harms of aviation operations has become too wide to wait. We require more immediate regulatory measures than the timid posturing to avoid dealing with their responsibility that has so far been the hallmark of the government actions.

This effectively self-regulating aviation industry (which has already shown an astounding disregard to even its clients, not to mention the citizens who are merely in the way of its unfettered profitable expansion) should operate under principles of ESG to ensure it accepts a social responsibility to benefit the community, not merely pursue profits at community expense or for the convenience of an elite few.

Aviation, even while being very important to the Australian way of life remains the most environmentally damaging form of transport with respect not only to particulate emissions but also noise. A renewed focus on environmental and social governance of aviation, away from merely an obsessive focus on carbon emissions, is an urgent necessity.

Harms from noise emissions must finally get equally serious consideration and, unlike carbon, there are practical ways to reduce noise with much more certainty and in the much shorter term. This is not an industry that can become carbon neutral in the foreseeable future, green-washing notwithstanding but we can and should limit the harms of noise, at least.



It's time to remedy the unfortunate legacy of the history of current avoidance strategies with respect to harmful noise pollution. But this is where we find ourselves today and we while we commend that finally the issue is being exposed through your inquiry. We hope that you step back and look closely at the failings of the current paradigm and ask, what is our duty of care?

If your Inquiry rationally assesses all the evidence (taking into account who is sponsoring it) and reaches a conclusion different from mine, so be it. But perhaps you might feel more comfortable, after looking more closely at the evidence, in the knowledge that by recommending tighter regulation of this quasi monopolistic industry in whatever form that takes, you will not be killing the future of Australia (or its regions) in the ways that the aviation industry stakeholders would have you believe.

In closing, I sincerely thank you for your work and careful reconsideration of effective policies and options to deal with aviation noise and, moreover, lobby your respective parties to support your recommendations. Hopefully these will appropriately balance the interests of all stakeholders (not just the business stakeholders) in order to create greater well-being for our citizens, along with a fairer and more prosperous Australia.

With best wishes,

Tim Roskams  
Brisbane Resident

Attached: Some "fact-sheets" with my take on key noise 'mitigation' concepts

## FACTSHEET – BRISBANE’S NOISE ACTION PLAN

AirServices, which is paid by the airlines based on the amount of air traffic they direct, has been given an impossibly conflicted mandate to reduce noise from residential overfly through operational ‘adjustments’ without being able to directly reduce the source of harm – low flying residential overfly.

Their cleaned list of communities overflown and the number ‘affected’ is mind boggling.

From ASA Website: *“The Noise Action Plan for Brisbane is AirServices Australia’s plan to reduce the IMPACT of aircraft noise on the communities of the wider Brisbane area. The plan was developed to address IMPACTS resulting from changes to Brisbane’s airspace, following the introduction of Brisbane Airport’s new parallel runway in July 2020.”*

Comment: AirServices claims not to have researched the known mental and physical harms of ongoing aircraft noise which are possibly the main detriment of the impacts they are allegedly addressing.

The said IMPACTS were previously assessed as ‘not significant’ by AirServices in their unpublished 2018 Environmental Assessment for the New Parallel Runway in Brisbane. They are now in charge of a plan to address their previously assessed ‘insignificant’ impacts.

This plan contains platitudes about noise mitigation and world class community engagement but has resulted in NO effective noise reduction over several years including from the effectively unworkable SODPROPS.

This is possibly the reason for the largest focus of the Noise Action Plan being “*Sharing the noise*” which is a simplistic industry-centric mechanism to avoid actually *reducing* noise.

The resultant ‘noise lottery’ is highly divisive to the community as it seeks to spread a known harm to more people without any clear rationale or evidence based research to support its use to reduce noise impacts. It should be dismissed as avoidance of the noise problem.

The Noise Action Plan has a goal is to reduce noise IMPACTS. But these impacts are never properly defined, no research has been done on them, there are no metrics for measuring them or their thresholds, and no clear explanation of how community input is collected and used to balance different community interests; and there are no noise “impact” reduction goals. How can this reasonably be called a plan?

It is almost impossible for someone in the community to understand the impact on their living quality of various options presented in the plan without hours of research. With the partial and incomplete information given in maps (flight paths are not accurately reflecting aircraft tracks, noise modelling relies on incomplete data and is not accurate, the consultation considerations are partial WRT the total flights), the consultation is deeply flawed. A person cannot realistically know the actual effect of each option on their living quality without manually compiling multiple sources of fragmented information.

AirServices has delayed implementation of the NAP again after claiming that the requirements are so complex that they need to hire an outside consultant to design a new 'improved' plan, while declining to release details of the terms of this engagement.

Hiring a consultant under non-released terms of reference provides an additional layer of non-accountability ("we relied on the best advice at the time").

Many in community feel that the NAP is intended to provide a veneer of political and social respectability to stonewalling the community by providing a mixture of false hope and a divisive community engagement process (aka noise lottery) that is unlikely to reduce noise impacts (a euphemism for noise harms), based on current evidence.

Any minor benefits provided by the glacially slow implementation of the plan have been far exceeded by the traffic increases over the past few years and most people have noticed a significant increase in noise, in spite of the NAPB.

Even giving AirServices (a government business paid by the amount of flight navigation they manage) the benefit of doubt as regards to their intentions to reduce noise, *there is no way noise will be reduced unless there is a significant regulatory change in how aircraft noise is measured, and limits are put on noise pollution from aircraft operations for the safety and well-being of tens or hundreds of thousands of Brisbane residents.*

This is a plan that cannot succeed because any meaningful restrictions have been ruled out in advance, but it also cannot fail and, most importantly, no one can be held accountable because it is a plan without any defined outcome (but good intentions?)

This so-called plan-without-a-goal has failed to deliver any noise mitigation in spite of the loud announcements of actions proposed followed by yet more confusing community consultations.

A cynic might say that the noise action plan allows AirServices to design more flight paths for future traffic increases, under the guise of noise mitigation.

The problem lies equally with gaps in the regulatory framework: the Minister has given AirServices the job of managing noise impacts (which is perceived as detrimental to the profits and operational efficiency of airports and airlines who are the clients of AirServices) without giving them any regulatory power, and additionally ruling out any restrictions on traffic or operational flexibility which, due to the siting and orientation of the airport runways, is almost certainly required to achieve ANY significant noise reductions in Brisbane.

There is no need for community consultation. It is clear what communities want: freedom from never ending 24/7 aircraft noise disturbance. Spending the money on improving the infrastructure to avoid residential overfly at low altitudes would be a much better investment.

## FACTSHEET: NOISE COMPLAINT STATISTICS DRAMATICALLY UNDERSTATE THE PROBLEM

Industry apologists point to the relatively low numbers of complaints on a population basis to imply that those complaining about the harms of aircraft noise are a minority of NIMBY residents opposed to progress.

Brisbane Airport noted: "In 2023, for example, we received at Brisbane Airport 5,900 complaints. To put that into context, 5,000 of those were from two complainants only..... in 2020 we had 998 individual complainants and in 2023 we had 249."

The implication is that some of the complainants are crackpots. As a counterpoint, if two people sent 5000 complaints, they must have been very very seriously disturbed by noise.

To conclude that merely 249 people were affected by aircraft noise is a convenient fiction.

First this total is not from a publicly promoted complaints process (viz AirServices misleadingly-titled *Noise Complaints and Information System* from which totals are much larger, even though still dramatically understated for the following reasons.

- Noise complaints are collected by ASA after being "cleaned" for relevance
- The complaints process is not widely known and moreover it is difficult, complex and time consuming to find the fragmented information required to make an allegedly actionable complaint
- People are specifically warned that making more than one complaint (in an unspecified time period) will be ignored
- One has to give a 'valid' reason for the complaint. What reason?
- Responses are typically delayed by weeks, if indeed any response is provided. Even the banks provide a better way of dealing with complaints.
- Most people give up because the process is so complex and depressing: the letter of response is appears generic and mostly excuse-filled, no discernable action results from the complaint, and the noise keeps increasing

Reflect that the number of noise complaints that would be reported from a transparent and polite process would likely be in the tens of thousands, and still an understatement of noise trauma.

## FACTSHEET - OUTCOMES BASED REGULATION

Three years of attempts to mitigate aircraft noise by making such operational 'adjustments' (glide paths, angle of ascent, full runway take-offs etc.) have failed, as admitted by Mr Brent, chair of AAB.

Pretending that this same approach will work better in the future is a fantasy that glosses over reality.

The primary reason for the failure of the minor tweaks to operational measures introduced by AirServices to reduce aircraft noise is because of the location of the airport and orientation of the runways, which were built for maximum traffic efficiency at minimum cost, and not for noise mitigation as Mr De Graff rather incredibly claims.

Public statements at the time of construction show a focus on the efficiency allowed by the NPR configuration, with noise as a marginal or unmentioned concern.

The current completely ineffective 'operations tweaking' approach has been pursued, in spite of its illogicality, because of the immense fear of consequences of more directly establishing acceptable noise thresholds and managing noise impacts (as is done in other industries), based on the historical assumption that aircraft noise was both necessary and it was essentially just a nuisance.

Outcomes-based regulation (OBR) is a logical way of creating a definite outcome, especially in a complex, changeable, technical operating environment which can only be effectively managed by those who can safely create the desired outcome. In this case that outcome is the safety and amenity of citizens near airports, the safety and amenity of travellers and pilots and planes, operational efficiency, industry profitability and the necessary connectivity to help develop our nation.

Of course the acceptable levels of noise harms would need to be defined, based on evidence. And effective ways to measure and monitor these harms would be necessary to implement such an outcomes based approach.

The upside is that industry would use all the means at their disposal to pursue their goals which might, for example, include quieter aircraft, appropriate flight paths, operational procedures that mitigate noise, and created self-imposed operational restrictions only as necessary and a last resort.

Councils and land planners would be forced to consider noise seriously in their planning efforts. New planes would be acquired and quickly brought into service not only for their fuel efficiency but also for their noise efficiency to enable more flexible operations.

*And of course it would require new thinking and be heavily resisted by an industry which prefers to socialize noise pollution, instead of having to consider it as an important priority in the way they manage their infrastructure and operations.*

## FACTSHEET – VALID ECONOMIC IMPACT STUDIES?

Economic impact forecasts are the main argument used to avoid the kinds of restrictions that would actually reduce noise harms from aviation. However, the below paper shows that economic impact studies are not the proper methodology to assess public benefit.

For example, Brisbane Airport's impact studies (used to justify their unimpeded expansion) use aggregated one-sided optimistic benefits-only data and EXCLUDE ALL COSTS TO THE ECONOMY aka fake accounting. Some of the profits go to overseas stakeholders.

Even taking their figures at face value, we know that after deducting public infrastructure spend, the private profits of associated businesses, direct and indirect government subsidies including almost tax free fuel and sponsored flights, the calculated health costs (already over half their claimed benefit, but completely ignored), the pollution cost for government and future generations clean up, and money spent overseas by Australian travellers (not all tourism is inbound) it would make their claims of being economically essential much less compelling.

Their projected job figures are extremely optimistic, ignore the casual and part-time low wages of many of these jobs, assume unimpeded growth and ignore the likely affect of automation in the industry. The claimed 23,000 jobs created by BAC are not specified as to income level or whether they are full or part time.

Plus the ignored health costs will compound each year as people get sicker and new persons are affected. Certainly, the airport's argument against operating restrictions at night does not hold any water as the aggregated benefits figure for night time operation would be minimal, but the health costs of night operations are even larger than for daytime operations.

***The Inquiry should request from industry proper, transparent, inclusive cost benefit studies of their public economic contribution based on credible assumptions. This might help determine the net potential benefits of some restrictions.***

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*Economic Evaluation of Investments in Airports: Recent Developments*

Abstract: The problem of how to evaluate investments in airports has now been studied for over 50 years. This paper analyzes the use of different methods like cost-benefit analysis (CBA), economic impact analysis (EIA), and computable general equilibrium (CGE) models to address the question. It assesses the strength and weaknesses of each method, and it discusses which methods have been used in different countries. The paper argues that the CBA approach and the newer CGE modeling approach address the policy issue well and that both methods are appropriate, although improvements are possible, especially in the newer aspects of evaluation. Furthermore, more data intensive CGE models are able to analyze broader aspects of the evaluation question for which CBA has had difficulty. EIA does not address the problem satisfactorily, and it misleads air transport policy. But this evaluation contrasts sharply with practice. EIA has been extensively used to decide on airport investment. CGE approaches are very promising, though further work is needed for them to reach their full potential. This paper pays particular attention to the relationship between CBA and CGE in airport investment evaluation and also the possible role of wider economic benefits (WEBs) of aviation in evaluation.

## FACTSHEET – INDUSTRY PROMISE OF QUIETER PLANES

Industry 'invests' in quieter modern planes, not primarily for the reduction in noise but, for the increase in fuel efficiency (\$). And there is a trade off between these two so we know what the priority will be.

The impressive sounding quietness reduction figures are misleading tweaked averages of sound pressure that do not reflect operational noise reductions experienced on the ground (loudness) which are much smaller (typically just a few decibels per decade of improvement, with progress slowing).

To get substantial additional noise reductions over current modern aircraft models will take a significant redesign of the whole aircraft. This cannot be done in a hurry under cost pressures a la Boeing 737s.

The dBA sound reduction measures (specified by manufacturers under perfect operating conditions) also omit low frequency aircraft noise which is a significant component of aircraft sound, and which is both disturbing AND damaging to health .... and much less amenable to reduction through the current approaches.

As small percentages of the airlines fleets are renewed every year, and there are dozens of airlines operating at every airport, it will take decades for quiet planes to be used on all flights, including the heavy international night-time flights and the older aircraft typically favoured for night time operations by the freight companies. Even this ignores the noise intrusion from rescue helicopters or lead spewing smaller aircraft and private jets and helicopters?

Promises of quieter planes are a convenient excuse for avoiding any restrictions now that might interfere with profits, scheduling and operational cost efficiency. The onus is on the community to wait for a fantasy future. *Meanwhile, increased noise from projected air traffic increases will more than offset any reduction in quietness from more modern aircraft.*

The fundamental problem of noise and pollution comes from airport design and siting, and thus from *low altitude residential overfly*, not what *kind* of aircraft fly over homes at low altitudes, or how they are operated.

*We need less low altitude overfly more than we need different kinds of planes or other tweaks and promises*

Mr De Graff confirmed that the airport does not currently incentivise the use of quiet aircraft as it is "complicated" and does not fit into their charging model. So much for the promises to even implement what is already available!

Industry promises to avoid any operational restrictions through e.g. quieter aircraft – without clear goals or timelines can not reduce noise experienced by residents more than the increases in noise from traffic expansion, with no net reduction being remotely conceivable. We are asked to share noise and wait a bit longer while and industry sits on their hands and expresses "sympathy" as they profiteer with citizens as 'unfortunate' collateral damage.

## FACTSHEET SODPROPS AS A SALES TOOL DIVORCED FROM REALITY

The touted extensive use of the SODPROPS mode in order to direct air traffic over the water was a known lie at the time of building NPR and but was conveniently the primary excuse used to sell the project to the community, even as the Airport and AirServices avoided proper scrutiny through arbitrary assumptions of significance in the misleading 2007 EIS and the unpublished and deeply flawed unpublished 2018 EA.

Construction industry magazines at the time, and newspaper articles report that the runway with its parallel configuration was built to be the most operationally efficient airport in Australia, not for noise mitigation as disarmingly claimed by Mr De Graff. For the very same reason the cross runway (very important for noise abatement) was decommissioned and is now used for aircraft parking.

Mr De Graff now claims he was misquoted and what he actually said was that the NPR would allow "a net improvement for residential areas". How did the whole Brisbane community and the media translate "net improvement" mistakenly into the 90% figure? And in any case if it was a net improvement from 2018 figures then even that metric is a failure.

Mr De Graff now claims that this 'expectation gap' occurred because the airspace is not being managed by AirServices in the operationally effective manner required by the airport under their improbable and unchecked set of assumptions.

One of the assumptions (that the airport focused on as a reason why there was an 'expectation gap' between what the community believed and what subsequently eventuated), was the 'failure' of the pilots to reconsider the 10knt tailwind limit. The airport proceeded to sell this project without even consulting the pilots as to the likely feasibility of this key assumption in SODPROPS usage figures.

However, even this is not the primary reason why SODPROPS can so rarely be used, apart from the requirement for nearly perfect weather conditions with respect to runway wetness and cloud cover/visibility.

Given its operational limitations SODPROPS cannot significantly reduce noise without caps on flight numbers down to about 40 per hour, even if segregated runway mode is used (otherwise about 20), also admitted by AAB chair Mr Brent. The airport plans 110 flights per hour, for comparison. Do the maths!

Now that the airport has built the new runway, under false pretences, it endorses that residents should share the noise and wait for quiet planes, even while they spend \$5b on upgrades, of which nothing is allotted to noise mitigation measures.

Mr De Graff also confirmed that the airport does not even incentivise the use of quiet aircraft as it is "complicated"



## FACTSHEET - ETHICS OF CURRENT AIRCRAFT NOISE REGULATIONS

Australia has largely adopted a utilitarian approach to public health. This extends to the current political and bureaucratic philosophy for 'essential' services is that it is OK to create demonstrable harm to a few in the service of economic growth and/or the convenience and alleged safety of many.

In this case Airlines and Airports, effective regulation of known or potential harms to the public these services is specifically excluded from normal rules which apply to the operation of various machines with respect to their public harms. I have outlined the gaps in regulation in my previous submission to the Inquiry.

I would note the following general differences from the approach to allowable harms compared with other essential services like utilities and telecoms etc. and why Airports are a special case of inequity.

Most essential services (other than Airports) are different because:

- (1) The implementation of this service and its regulation is at least nominally overseen by a body which is independent of the industry it regulates
- (2) There is generally an attempt at compensation to those affected, or action taken to mitigate the harms to those whose rights are infringed
- (3) The infringement is usually a one-off event, not continuous e.g. daily causing demonstrable physical and mental harm of aircraft noise
- (4) While the infringement is perhaps painful to those whose rights are suspended, it is never at the level of imposing deliberate *ongoing* physical and mental harm – caused by day and night noise over 60-70db - the typical trigger of a noise complaint in a non-exempted industry. There are adequate studies of those harms from aircraft noise to not leave the level of damage and suffering in any doubt.
- (5) It is not for the direct benefit of private profit making corporations (e.g. Brisbane Airport Corporation and airlines including Qantas who are expert at lobbying to get government privileges and funding, and to privatize their profits and socialize costs)

Angus Deaton, Emeritus Professor of Economics and International Affairs at Princeton noted about economists and economic arguments:

*"In contrast to economists from Smith and Marx through Keynes, Hayek, and even Friedman, we have largely stopped thinking about ethics and about what constitutes human well-being. We are technocrats who focus on efficiency. ....We often equate well-being with money or consumption, missing much of what matters to people... our recommendations become little more than a license for plunder."*

## FACTSHEET MEASURING NOISE

Official overfly traffic statistics are calculated by AirServices using a 750m<sup>2</sup> grid - statistics based on counting overfly if it goes directly over a selected but *unmarked* square grid of 750m sides. If a selected location is near the edge of a grid box, the actual traffic within noise range 1.5-2km would be multiples of the traffic figures presented by AirServices.

Noise contours are calculated using an 'average' aircraft and cleaned in an unknown way. AirServices uses models to estimate noise and I am not aware of any proper comparison between modelled noise and monitor-measured noise at all monitoring locations, current or past.

*There are no comprehensive noise maps (N contour maps) of Brisbane to enable residents to see the impacts visually.*

Noise is modelled using LA<sub>max</sub>, a measure which omits the disturbing and damaging low frequency component of aircraft noise, which attenuates less readily through air and buildings (very difficult to insulate against), and which comprises a considerable portion of the noise energy emanating from aircraft. At these frequencies, noise propagates over long distances and travels freely through structures.

The current noise measure ANEF (for regulatory purposes) has been known as inappropriate by government / industry for decades. But no replacement has been proposed - perhaps because it understates noise harms?

ANEF and other averaged models to calculate exposure to noise are *technocratic fabrications that have little bearing on reality* because the ear responds to changes in sound, not to 'average' levels. For example, a soft buzz on an averaged model would be the same level as complete silence punctuated by loud whistles every hour. Clearly the annoyance impact and potential for waking from sleep would be vastly different in these two situations. People even use "white noise" to fall asleep, but who has proposed loud infrequent noise punctuations over relative silence to assist with sleep 'hygiene'?

**For reference, hourly wake-ups at night (8hours) of a 45 second burst of 75dB from a background of 30dB (common in many Brisbane suburbs) would register as merely 46dB on an averaged sound pressure Leq. The health effect is much more accurately predicted from the loudness and frequency of the noise occurrence.**

A proper noise measure should be simple, intuitive and correspond directly to experienced annoyance and likely harms. The simplest such measure would probably be the number of single noise events over a certain loudness in a given time period (compared with ambient levels).

A useful start would be comprehensive maps of affected areas up to 50km from an airport based on N contours (e.g. say N50, N60, N70 etc. These maps should use L<sub>max</sub> (unweighted) and LC<sub>max</sub> respectively

Annoyance: L<sub>max</sub> (1sec) using the full audible frequency spectrum plus frequency and times of occurrence – compared with ambient levels. Night level weighting maybe 10dB. No building attenuation can be assumed in older style dwellings in Brisbane.

Health: LC<sub>max</sub> plus frequency of occurrence, with a very high sleeping hours weighting.

*Evidence based harm levels should be established and acceptable thresholds set*