BFPCA

BRISBANE FLIGHT PATH COMMUNITY ALLIANCE

BFPCA Submission to the Aviation Green Paper 2023

25 November 2023

Brisbane Flight Path Community Alliance, Inc.
PO Box 2031
New Farm QLD 4005
e contact@bfpca.org.au
w bfpca.org.au

About BFPCA

With the launch of Brisbane Airport's New Parallel Runway on 12 July 2020 came a new airspace design and flight paths that concentrate aircraft noise over densely populated residential areas.

Brisbane Airport and Airservices Australia sold this project to Brisbane communities suggesting the New Parallel Runway will enable them to prioritise "over water" operations that direct planes away from residential areas. The CEO Gert-Jan de Graaff is on the record saying, "the net effect of aircraft flying over the city will decrease."

Brisbane families and communities are suffering from excessive noise pollution and associated health and related impacts from Brisbane Airport's new flight paths launched in July 2020. The Aircraft Noise Ombudsman report, the Brisbane Airport PIR Advisory Forum (BAPAF) and flight path design consultants TRAX International have all confirmed that Brisbane communities were misled using flawed noise modelling, deceiving community engagement, and offered inadequate noise abatements.

Brisbane Flight Path Community Alliance (BFPCA) came together in 2020 to fight back on behalf of all Brisbane families and communities experiencing this noise pollution.

For more information about BFPCA and our community advocacy work, visit: https://bfpca.org.au/

Preamble

Brisbane has more noise complaints than any other airport in Australia, and yet the government refuses to afford its citizens the same protections which were made available in other local government areas, and has broken its commitment to periodic reviews (signed by the current Prime Minister as part of the 2009 Aviation Policy White Paper) of the need of a curfew in Brisbane.

Largely unregulated noise from the 24/7 operation of Brisbane Airport (along with defence flights from Amberley Airbase, emergency flights plus GA flights from Archerfield aerodrome), affects a large area of Brisbane, with many thousands of residents having their life and sleep seriously disturbed. We estimate about 671,000 (26%) people are moderately afflicted and some 242,000 (9%) are severely afflicted.

This is orders of magnitude greater than predictions made by BAC in their 2007 MDP/EIS, and the subsequently unpublished and clearly flawed 2018 EA (EPBC 2005/2144), which Airservices Australia (ASA) and the Australian Government accepted without question. And this regulatory failure is by no means the only instance in the aviation industry in Australia – but one which affects all our members directly on an ongoing basis.

contact@bfpca.org.au
bfpca.org.au

We expect the Aviation White Paper will help in the development of an industry that supports this and other cities to not be just more connected to other destinations, and more profitable for the aviation industry, but also more equitable, sustainable and liveable for residents.

This will involve the need to explore different narratives around the development of air travel than the dominant economic framework proposed in the Green Paper. But unfortunately the chapter headings and wording in the current paper look depressingly familiar to the National Aviation Policy White Paper 2009, signed off by the current Prime Minister, which has so miserably failed Brisbane residents.

We sincerely hope that the Department who will examine the situation impartially and bring to bear a sense of ethics in deciding on a way forward for the industry in the next 25 years.

BFPCA makes this submission in good faith in response to the Aviation Green Paper – Towards 2050 (dated September 2023) in the hope that ongoing aviation policy reflects more than merely a privileged industry's goals of maximum efficiency and profits, with an over narrow definition of safety that ignores community health and well-being.

We acknowledge the importance to the nation of the aviation industry, but seek aviation policy outcomes and proper regulation that place the wider community on at least an equal footing with industry and frequent air travellers in the priorities and operations of aviation.

BFPCA would be happy to provide further input on various aspects of our submission should the Department wish our further input or clarification while designing the *Aviation White Paper.*

National Aviation Policy White Paper – 2009

Is the current White Paper going to fail Brisbane residents again, by design?

In his approval of the Brisbane Airport Master Plan in September 2009, the Minister detailed the steps Brisbane Airport Corporation would be taking to improve the way it engages with nearby communities and responds to their concerns, particularly in relation to aircraft noise.

The Minister also committed to the periodic review of the need for a curfew at the Airport.

ICAO has adopted a Balanced Approach for aircraft noise management globally that involves:

1. reducing aircraft noise problems through reduction at source;
2. land use planning and management;
3. noise abatement operational procedures; and
4. aircraft operating restrictions.

contact@bfpca.org.au
bfpca.org.au

The Australian Government has failed on all four accounts. Especially ICAO step 4 has been entirely bypassed in the case of Brisbane.

Airport curfews are one way of managing night time aircraft noise and providing communities around airports with some respite.

Why are they summarily ruled out for existing airports without a curfew, whose operators have managed to avoid scrutiny on actual noise harms or produce unverified economic modelling to support 24/7 operations with cherry-picked data that ignores all community costs?

The Government will also:

> *…. monitor the noise impact of future airport growth at Brisbane where significant new development and activity is planned over the next decade and establish a review process on any need for a future curfew.*

A clearly broken committent making the 2009 Policy promise worthless for Brisbane communities affected by noise. Where are the published reviews of the need for a curfew over the last decade?

The failures in implementation of the previous Aviation Policy document to the detriment of communities is not the only issue requiring a review of the Green Paper.

The community feel that they have been lied to by industry, and there has been no accountability. Trax International Limited produced an Independent Review of the Brisbane Airport New Parallel Runway (NPR) Flight Paths (July 2022) and few of these lessons, especially regarding community engagement, appear to have been seriously applied in the Green Paper.

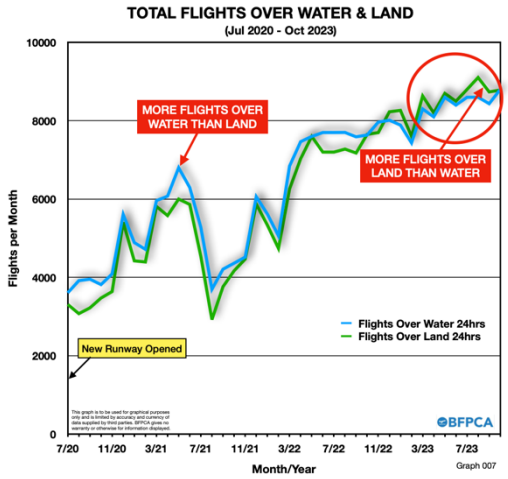
As recently as December 2019, the CEO of BAC was reported as follows, justifying BACs design of the NPR (new parallel runway) development, with both runways pointed directly over the city, and which has caused so much noise harm to tens of thousands of residents.

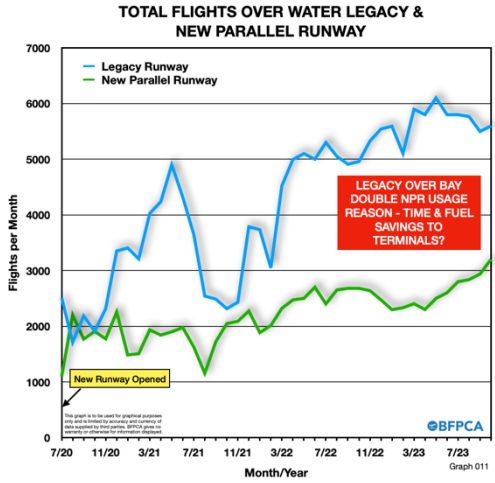
> *"When open, it will raise BNE's airfield capacity from 50 to up to 110 aircraft movements per hour and allow the airport to become a better neighbour to its surrounding communities* ***by ensuring that all night flights operate over water into Moreton Bay, well away from any residential areas.***
>
> *"It's a win-win scenario for everybody," enthuses de Graaff.*
>
> *"It will effectively make us one of the most efficient and best prepared airports in Australia for future growth at the same time as making us more noise efficient, so lessening our impact on the local community."*

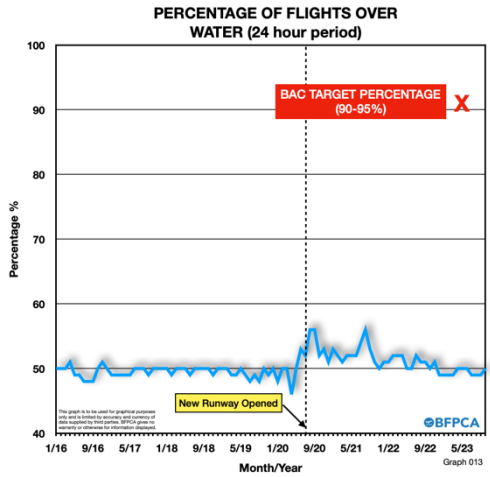
Government's own data shows the actual implementation of loudly announced noise reduction measures over the past several years **have resulted in zero overall reduction** in residential overfly, and in fact increasing traffic (party government subsidised) has actually worsened the noise disturbance to Brisbane residents.

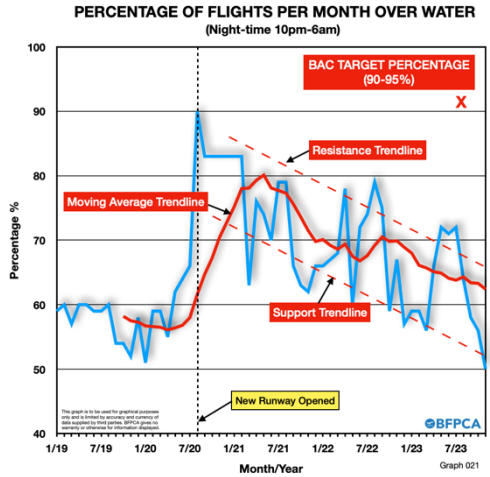
contact@bfpca.org.au
bfpca.org.au

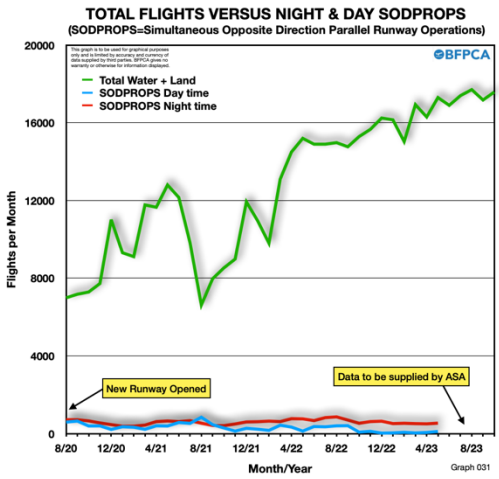
For example, SODPROPS operation referred to by the CEO above was claimed (while seeking community approval for NPR) to be able to direct a large majority of flights over the water, while the actual ability of this measure is now revealed to be minimal in achieving reduction in noise harms. Note 50% flights over water would correspond to approximately zero use of SODPROPS.

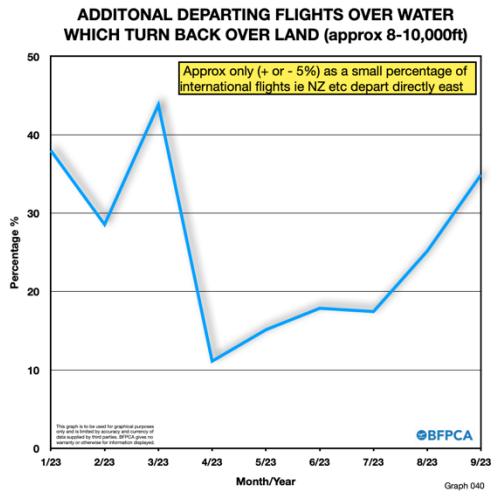












contact@bfpca.org.au
bfpca.org.au

While we acknowledge the many benefits of the policies proposed in the Green Paper, its framework for aviation development to 2050 seems to be essentially mandating the imposition of a government and industry supported growth objective (300% traffic increase apparently based on demand projections being prioritised over community social, health and environmental concerns.

This is completely inverted thinking about aviation development. The inversion of public interest under economic primacy also guarantees a sham community engagement process, since the outcome of the assumed desirable growth have been mandated in advance. At present, the community expectations are 'managed' around the need of industry, whereas the industry should be managed around the needs of the community.

The abstract policy decisions that follow from relying on technical and often biased industry advice can produce devastating impacts on people and communities. Many of the 'models' and forecasting assumptions used to provide such advice are industry-sponsored and have been shown to be drastically wrong in the past (e.g. in data and projections for the MDP/EIS for Brisbane Airport in 2007 and the subsequent BAC/Airservices EA study at Brisbane Airport in 2018).

We hope that the White Paper will result in Government accepting leadership and placing the community which elected them as central to policy, and supporting the industry strongly to assist the goal of socially appropriate and sustainable development, while countering the current licence to completely socialize noise and pollution costs while focusing attention on profits through operational efficiency.

BFPCA, November 2023

contact@bfpca.org.au
bfpca.org.au

SCOPE OF THIS SUBMISSION

This submission to improve on the current version of the Green Paper is made within this context. Our submission covers the following topics in response to the proposals and questions outlined in the Green Paper, and on which the government is seeking submissions as it designs the White Paper policy document.

Submission Scope

1. Overall Policy Planning
2. Regulation, Monitoring and Guidance
3. Community Engagement
4. Infrastructure Planning
5. Operations Management
6. AirServices Role
7. General Aviation
8. Sustainability, Security and Resilience
9. Other Topics related to Green Paper Issues

The first and most critical section of this submission largely focuses on the erroneous assumptive framework on which the proposed Aviation White Paper is based, particularly with respect to an appropriate balance of social and economic factors relevant to the growth of aviation in Australia to 2050.

Some sections of the Green Paper such as *Airlines, Airports and Passengers* and *International Aviation* are adequately dealt with in our view, and are not the focus of this submission, as they fall comfortably within the Paper's presumptive framework of maximizing operational efficiency and aircraft safety, and minimizing costs of aviation operations and air travel.

We do however support the development of a *Bill Of Rights For Air Travellers*. It might be too much to hope for a parallel bill of rights for communities affected by aviation operations.

We seek an outcome where communities are given full and accurate information, treated respectfully, and given appropriately important consideration in the development and application of aviation regulation, flight path design, and airport development.

Accordingly, this is the main focus of our comments on the Green Paper. However we also comment briefly on other areas where the Australian Government has invited a response, and where we believe that the proposed framework for aviation policy fails to properly consider building a sound and resilient aviation industry, fostering appropriate investment (free of government largesse with taxpayer dollars), and proposing policies that benefit all sectors of the wider community.

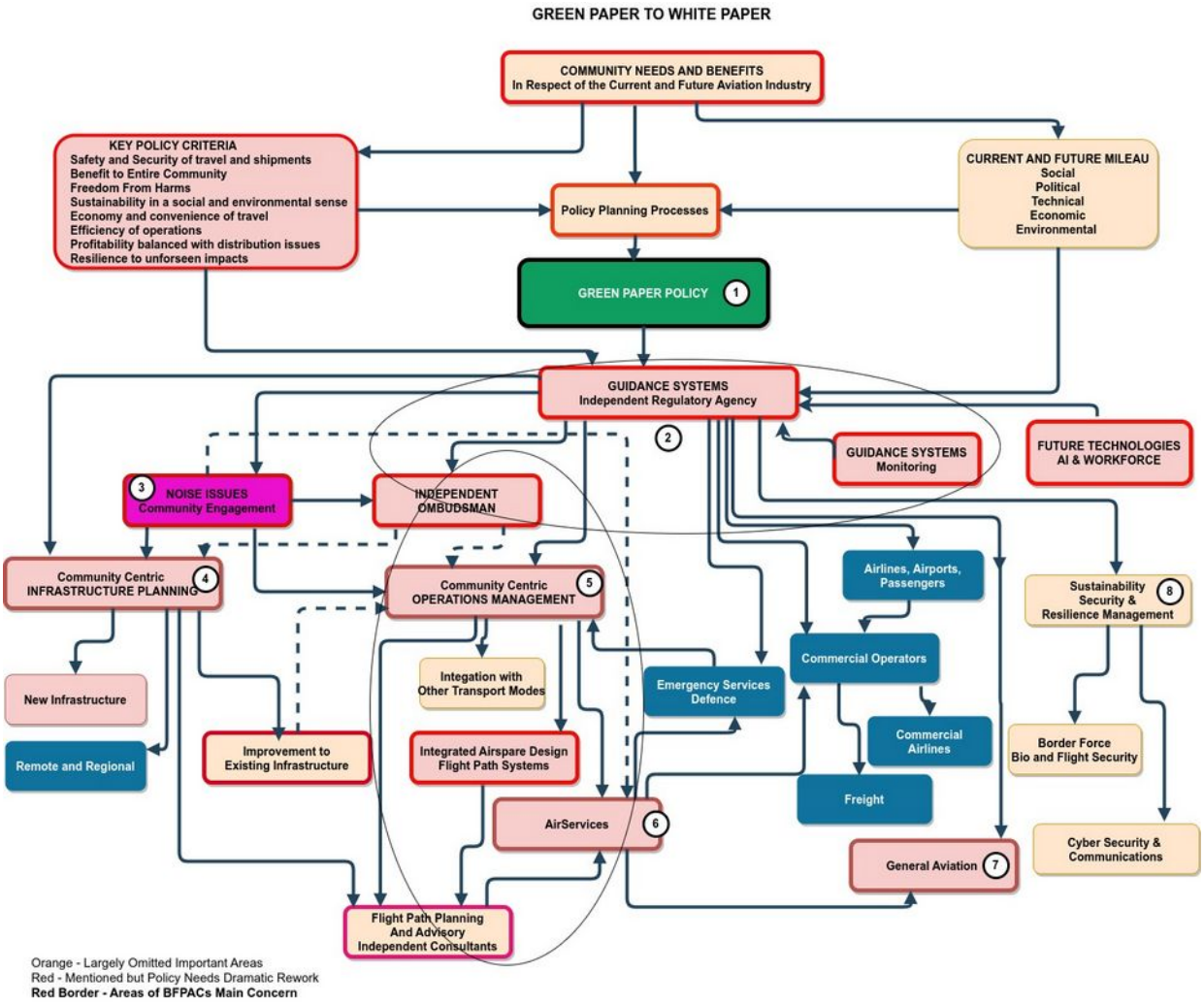
We note that since 2020 there have been a growing number of complaints about the impact on citizens' lives of aviation operations in Hobart, the Sunshine Coast, Brisbane,

Sydney and East Melbourne, which indicate a rising tide of community resentment against aviation operators and the improper operational protections afforded to them.

Not everyone identifies themselves as a frequent air traveller, but they do identify their children as future citizens. The White Paper must more appropriately acknowledge the industry's effect on the kind of public space that is being planned for these future citizens.

The dominance of economic interests in airport hubs needs to be rebalanced towards a consideration of living spaces that meet the legitimate needs of a vibrant aviation industry *along with* the community's need for a safe, pollution free and pleasant living environment.

Issues Considered In BFPCAs Submission (Highlighted With Red Borders).



Aviation – Place In The Social and Transport Network?

Aviation is an important mode of transport in Australia but has been treated as an end in itself, and the private corporations in the industry given subsidies and exemptions, while regulations are relaxed to allow them to socialize almost all pollution and noise harms.

Integrated transport options are a necessity. The difficulty of developing high speed rail in Australia is acknowledged, but faster and more efficient rail networks are a necessity.

Recently it was reported that 20% of respondents in Australia have difficulty making ends meet in terms of eating or paying for housing. These people are not frequent air travellers, but the proposed aviation policies mean that they are effectively subsidizing private corporations and frequent flyers.

Frequent flyers (making dozens or hundreds of trips per year) in Australia are mostly wealthy business people, who effectively get subsidized airfares from the majority of the population of non frequent flyers who may occasionally go on holiday or travel to see relatives. They have a disproportionately excessive carbon footprint that the rest of the community subsides.

Social licence for aviation operations is fraying. Airline policy failures, small aircraft crashes, and aircraft noise complaints are rising.

More people are having their health and quality of life essentially destroyed by the impact of improperly designed infrastructure and flight paths, without the claimed consultations having taken place or their voice being ignored in a flawed regulatory process.

In what kind of society is it considered 'necessary' for 'reasons of operational efficiency' to be woken up by a dozen or more times per night by the equivalent noise level of someone starting a lawn mower under the bedroom window?

Devoting further investment into a dysfunctional *Community Engagement* system to prop up 'social licence' could be largely avoided by acknowledging that aircraft noise isn't about operational necessity, but cost-saving and the lax regulation of a profitable industry, while avoiding to make the necessary tough decisions that might ruffle industry feathers. It's time to put ethics back into the equation.

SECTION 1: PROBLEMS WITH THE OVERALL POLICY PLANNING APPROACH

The current Green Paper largely proposes using a similar framework of 'business as usual' with some minor modifications in the other 190 pages to the 2009 Policy.

2023 Green Paper's Policy Focus in Practice

Our overview identifies that the Green Paper focuses largely on policy measures to promote 'business as usual' by its goals to:

- support rapid industry growth (forecast as 300% over 25 years)
- maintain the safety record of aircraft operation (for the aircraft only)
- maximize operational efficiency for airports and airlines
- minimize costs to travellers
- ensure aviation connectedness for all communities
- support industry remaining largely privatized and profitable
- reduce the carbon footprint of aviation
- capitalize on technology and workforce changes
- impose broad regulatory oversight but leave details of regulation (apart from those closely related to national security) to be directly or indirectly managed and funded by industry or industry sponsored bodies, using a similar framework to that established in the 2009 White Paper

Policy making involves choosing among alternative possible courses of action in order to achieve desired outcomes. Alternative design goals to the above are largely omitted from this document. There is no analysis which maps the consequences of a range of different visions of aviation in policy settings and where they might lead.

The espoused vision of aviation policy for the next 25 years, surprisingly, devotes merely four pages specifically to 'the future', plus rather brief notes about likely future changes in the social, political, technical and economic environment.

There is an artificial divide in policy between technical efficiency and social 'concerns'. Input from technical experts is absolutely necessary in deciding appropriate policy, and a central pillar of such policy. But engineers and business people have been allowed by current aviation policy to focus on cost and technical efficiency, and largely exclude social concerns in their solutions for optimal infrastructure design and operations, except as annoying political limitations.

In the debate about aviation policies, traffic demand modelling, economic modelling and noise modelling have seem to have replaced careful analysis and consideration. In the case of the Green Paper, the modelled assumptions are invoked to produce 'forecasts' (i.e. predictions), which are then assumed as fact to inform policy makers of the 'correct' policy choices with relatively questions of relatively minor scope being asked of the community for their input.

The only problem is that the models are wrong, often by orders of magnitude.

The models may use wrong assumptions. In aviation, they are usually produced by stakeholders with vested interests in a particular business outcome, using cherry picked data and carefully selected assumptions.

Need for Community Centric Policy

The Green paper currently considers the *wider community* primarily in the context of a prospective air traveller or as providing social licence for industry centric policy, *rather than placing the community needs and benefits as central in policy determination.*

The implied 'goals' of operational efficiency and safety should be properly considered only as enablers of the more appropriate social and economic goal: *optimizing social and economic benefits (including connectivity) of aviation within the context of transport in general, while acknowledging and counter-balancing growth with the social, economic and environmental costs to the community as a whole.*

It should not have escaped the authors of the Green Paper from recent corporate scandals that social licence can be lost suddenly and completely with a few well-publicised regulatory failures that seriously impact the general public.

Likely Needs of Air Travellers and Communities to 2050

- Convenient integrated flexible transport options (not necessarily just aviation)
- Economy of travel options
- Safe travel
- Freedom from noise, environmental pollution and other harms while travelling or as a non traveller
- Socially responsible and sustainable travel options
- An ethical and community centric approach to social engagement with the industry and government (customers and non customers)

If these benefits are delivered by the policy, there will be automatic social licence for unimpeded industry development, and less need for extensive, inconclusive, unclear and divisive community engagement programs, which at present are largely theatrical.

It is not possible to 'manufacture' social licence by failing to deliver the above goals, and instead imposing mandates along with expectations management disguised as community 'engagement', supplemented with occasional PR headlines or outraged speeches and editorials.

There are also real distribution issues with aviation policy that are not considered in the Green Paper.

Clear losers of current aviation policies and lack alternative fast rail options are the significant percent of the population who are non- or very infrequent-flyers, together with those suffering the harmful effects of noise from low and frequent residential overfly.

Clear winners of cheap travel options are elites and frequent flyers, who have both subsidized flight costs and their conscience about overusing an environmentally destructive mode of transport assuaged with industry slogans about sustainability and the option to purchase carbon offsetting and government campaigns around 'proposed' SAF.

THE IGNORED HARMS OF AVIATION OPERATIONS

The Green Paper appears to have been conceived within a regulatory framework that assumes (1) the industry should dramatically expand to meet a low cost demand (2) industry should largely self-regulate in practice (3) aircraft noise 'nuisance' is unavoidable, and (4) aircraft noise and other harms are community concerns that need to be 'managed' to allow continued industry growth without operational restrictions.

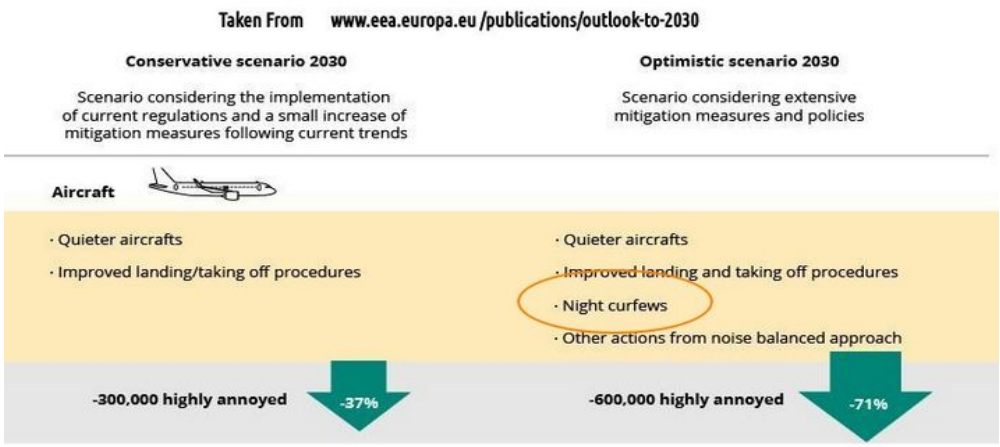
The assumptive framework is wrong. It presupposes an economic outcome based on flawed accounting and linear forecasting.

For example, it is assumed as a 'fact' that residential overfly is largely *inevitable*, and merely a type of social '*nuisance*' (which should be managed to prevent potential reduction of 'social licence').

<u>The truth about noise inevitability?</u> Aviation noise harms would be largely *preventable* if there were a **real** commitment to investment in making appropriate improvements to both infrastructure and operations, or to rectifying the improper infrastructure decisions made in the past to minimize cost while ignoring potential community harms.

Certainly the known and significant harm of night time sleep disturbance could almost immediately be remedied in those LGAs remaining without a curfew, by imposing such practicable measures on the airports in question.

Curfews are not a death knell for the industry, but rather an ethical requirement to rectify past policy mistakes in developing and approving the infrastructure that results in loud and frequent residential overfly throughout all hours of the night.



Distance from the airport as a metric used to justify planning regulation around airport development and flight path changes is actually irrelevant. What is relevant is the actual noise measured on the ground.

The truth about noise as 'nuisance'? Aircraft noise is a recognised and well-researched medical and social **harm**, not merely a nuisance. This fact is conveniently ignored in aviation policy in Australia so as not to interfere with operational efficiency.

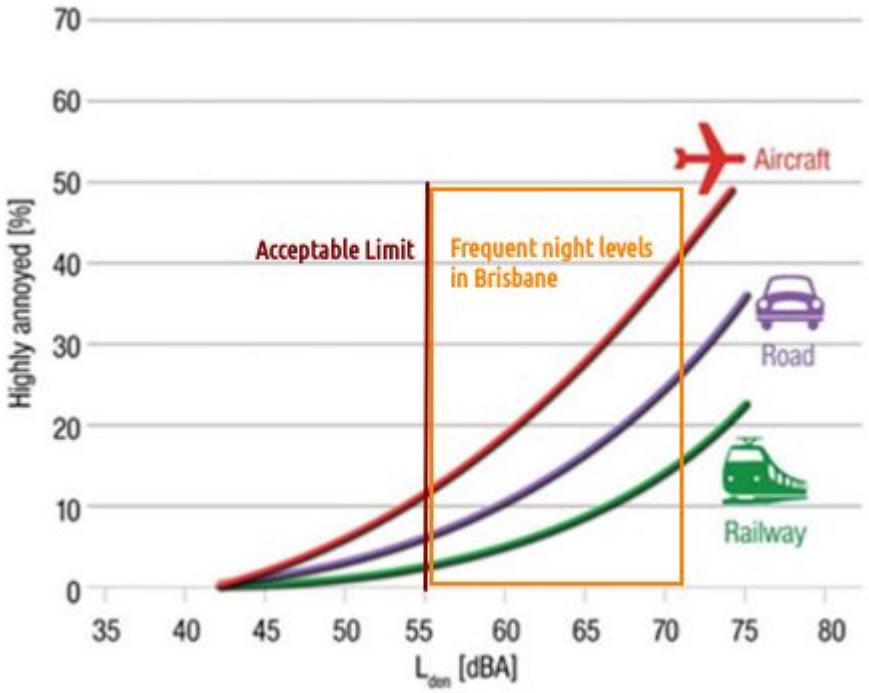


Fig. 1 Comparison of annoyance due to transportation systems. *Credit* European Heart Journal 2014)

Re-developing Existing Infrastructure & Planning New Infrastructure

A proper consideration of costs and risks of the current policy would come to the conclusion that **one important focus of aviation policy to 2050 must be on how to *dramatically reduce low residential overfly*, especially at night, by investing in infrastructure redevelopment and operational control,** which could also enhance the other goals of improving safety, efficiency and sustainability.

An inclusive cost benefit analysis would show such an investment in infrastructure redevelopment to be ethically required, as well as worthwhile in terms of industry safety, sustainability and resilience. In summary, it would deliver an overall community benefit, even considering the significant infrastructure and operational investments required.

BFPCA SUMMARY OF OMISSIONS IN THE DEVELOPMENT OF AVIATION POLICY

At the core of the the Green Paper is an underlying assumption that flight movements should triple by 2050, from around 3 million per year now to as much as 10 million. We believe this would be completely unsustainable without a significant overhaul of the regulatory and policy framework presented in the Green Paper.

Community social licence is not just a nuisance to be 'manipulated' thought nudge policies, it is an ethical, social, political and economic necessity and precondition for the industry to develop profitably and efficiently in delivering benefits to both the operators and the public.

1. Policy Planning Process & Assumptions

- It is important to avoid assumptive thinking and contradictions in designing policy to encourage balanced industry development. The government should acknowledge and take into account the consistency of its expansionary aviation policies with its other goals related to climate change and domestic tourism, housing, and infrastructure development.

- Lack of use of accepted tools such as scenario planning and cost benefit analyses of policy alternatives to guide the development and regulation of a resilient aviation sector to supplement assumptive forecasts which will almost certainly be wrong.

- Excessive reliance on first order modelled projections for policy design, in spite of paying lip service a complex and rapidly changing social, political, technical, environmental and economic landscape. The historical flaws in modelling are not acknowledged. This results in continued use of inappropriate metrics for policy decisions (e.g. ANEF is recognised as outdated but no alternative proposals have been made even a decade later to estimate aircraft noise), and a lack of focus on v*alidating* models with real world data

- Putting the operational efficiency of private operators ahead of the community. This reflects a failure to put community needs and benefits as <u>central</u> in aviation policy, compared with the needs of operators and their managerial bureaucratic control focus on operational efficiency.

- Focussing excessively on the benefits of aviation growth and largely ignoring and socializing most costs of aviation expansion. Ignored costs include direct and indirect subsidies, fuel excise exemptions, costs of infrastructure development, limitations on land use, community social and medical costs, pollution, environmental remediation etc.

- Relying on industry-supplied data, forecasts and assertions without independent checking. A notable example is the industry's inflated claims of the costs of a curfew in Brisbane. The 'accounting' does not include any counterbalancing

benefits to the community or acknowledgement of taxpayer funded subsidies/exemptions to industry.

- Lack of consideration of integration of other transport options alongside aviation to maximize travel efficiency and reduce its environmental footprint (e.g. most people travel to airports in cars)

- Largely ignoring the spirit of independently commissioned research into more appropriate community engagement in the planning processes for both infrastructure and flight paths (e.g. Trax International Report on Brisbane PIR 2018), where this apparently conflicts with industry's desire to avoid any regulation over their operational flexibility.

- Ethical, environmental and socially responsible industry development is not placed as central to policy. The policy authors apparently do not think there is anything ethically wrong in imposing a known medically verifiable harm on some citizens (e.g. loud night time residential overfly), not for the reason of preventing harm to others, but merely for the cost-savings and convenience of private companies and elite travellers (among whom are aviation 'experts' and politicians), completely discounting social costs and harms borne by the community.

2. Regulation, Monitoring and Guidance

- Using assumptions about consumer preferences for aviation policy settings which could change dramatically given certain unforeseen (but not unforeseeable) low (but not negligible) risk events e.g. pandemic, war, costs, cyberattack, crash, terrorism etc.

- Downplaying the roles and establishing protocols for proper reporting and monitoring of all aspects of aviation usage including e.g. regulatory adherence, economic and social benefits and harms as an important part of the regulatory process

- The ineffective monitoring and regulation of existing processes and laws is not properly addressed in the Green Paper. For example, the Department primarily regulates AirServices only with respect to budgetary matters and its day-to-day operations are essentially unsupervised.

- There is no mention of mechanism of redress and calling to account past regulatory failures and infringements, including the misleading and partial information provided to several communities prior to major infrastruicture developments/flight path changes.

- The main restriction on airport development remains an Environmental Impact Study, which is not fit for purpose as an aviation planning instrument, and which almost completely ignores community health and safety.

- Along with the many issues in the paper that might affect the presumed goal of 'operational efficiency, there is a scrupulous avoidance of any consideration of

noise harms (medical, social,economic) and policy settings actually encourage environmental and pollution harms of the industry (e.g. promoting growth, artificially low airfares, almost zero aviation fuel excise etc.). How can a proper path forward be envisioned when considering only benefits of aviation expansion while ignoring costs (most of which are re-framed as merely a 'concern' or 'nuisance')

- A focus on developing policies and regulation (including competition policies) to reduce costs for air travellers (among whom are the elite and politicians) rather than travellers paying fair costs for air travel, not subsidized by the taxpayer or calculated by ignoring the social costs to the community of proper measures to reduce the harms generated for traveller convenience (e.g. permitting unimpeded day and night residential overfly), instead of developing proper systems and restrictions to avoid this harm, and having travellers pay the appropriate costs of flying that take socialized costs and their environmental footprint into account, in the same way as other businesses are required to follow a 'user pays' principle.

- Completely bypassing the need to regulate noise to levels internationally recognised as being necessary to prevent medical and emotional harm (acknowledged by the EU as the second most dangerous health impact from the environment with air pollution being the most dangerous) by international organizations including WHO. This involves policy measures to determine and set meaningful evidence-based maximum noise levels as is done in other industries – backed by overseas standards (e.g. WHO) and local research supported by proper noise monitoring and community consultation. Noise limits should be based on known noise harms, not omitted for the purpose of operational convenience and increased profits to airports.

3. Community Engagement

- The Paper under estimates the potential speed of change of social attitudes and likelihood of the loss of social licence by unforeseen events

- The Green Paper proposes some improvements in community consultation but the same flawed framework still largely applies. The community consultation framework has proven both relatively divisive to the community (through noise sharing procedures) in the past and delivered little almost no real benefit except though the sham focus on periodically shifting noise to different communities. Overall, in the time AirServices has been conducting community engagement, there has been <u>no</u> noticeable improvement in noise levels.

- We support the proposal to make the ANO independent of Air Services, but add that the office must be properly resourced (without industry funding) and have powers to demand evidence and documents, propose penalties for infringements, and the power to enforce compliance with existing regulation, as well as report directly to the Minster and Parliament to suggest changes to existing regulation.

- The Government proposes placing the responsibility for developing and implementing noise mitigation programs back to airports within their communities (along the lines of previous Government policy) with a continuation

of self-regulation by an industry which has shown little social responsibility in the past, as they can continue to ignore community costs.

4. Infrastructure Planning

- The Green Paper proposes better design and land use planning as a tool for development of new infrastructure. This is absolutely necessary. But the requirements should mandate using real world data in preference to untested assumptive models wherever feasible. Where modelling is used it should be independently checked and verified. For example, simple distance from the end of a runway as a metric used to inform planning regulation around airport development and flight path changes is largely irrelevant. What is more relevant is the actual noise measured on the ground and proposed use of nearby areas as flight paths.

- It is *completely inadequate* to focus revising planning guidelines to the development of new infrastructure while ignoring the *urgent* need to modify existing infrastructure and operational processes to minimize both operational inefficiencies and noise and other harms. Options for both new infrastructure and the redevelopment of existing infrastructure should be considered in an inclusive and transparent plan, supported by independently verified cost-benefit studies.

- Proper oversight mechanisms with severe penalties should also be proposed to make sure the past flaws in airport design and its misleading promotion to the public are not repeated.

- The Green Paper does not propose full and inclusive cost benefit studies of different options in either infrastructure development or alterations in operations. Current policy costs are largely ignored and socialised: For example, large proportion of aircraft noise and pollution is preventable, and the costs of this prevention would be seen to be outweighed by the benefits in a proper and inclusive cost-benefit analysis. In the touted economic benefits of industry expansion or lack of regulation, benefits are exaggerated, and direct and indirect costs to the community just ignored (e.g. through lax regulations, land use restrictions, publicly funded infrastructure, direct subsidies, indirect subsidies (e.g. Jet Zero), and the health and social well-being costs, totally billions annually.)

- There is an over-estimation of jobs growth as one justification for aviation expansion, since an increasing AI focus will replace many jobs and make the industry forecasts inaccurate.

5. Operations Management

- The current focus on safety as the highest policy goal is laudable. Aircraft safety, an acknowledged priority, is unfortunately over-narrowly defined as being merely the safety of the aircraft/crew/passengers from catastrophic incident aka crash. It should be expanded to include the safety of all those who are instrumental in operating the aircraft, and all those potentially affected by its operations, in the same way other machines in other workplace environments are regulated. The

current definition is analogous to mandating crash proof cars but having no road barriers, pedestrian crossings, footpaths etc. to protect the wider community.

- Community concerns regarding noise are framed as an issue to be 'managed' in dealing with potential opposition to social licence for aviation's relatively unimpeded profitable operation. Noise reduction methods are specified to be followed ("where possible") but clearly subservient to 'efficient operations management'. These assumptions benefit the policy's focus on encouraging projected air traffic demand *under the current infrastructure limitations*, rather than setting traffic limits given the limitations of existing infrastructure to allow effective community harm reduction. *The only acceptable alternative is for infrastructure and operations design modified so as to allow projected air traffic to operate without residential overfly.*

- There are clear but ignored conflicts in Green paper statements e.g. paying lip service to following the ICAOs *balanced approach to noise management* while a priori eliminating steps in the process which might interfere with the Green Paper's over narrow focus on 'operational efficiency' (*The Australian Government is not considering further operational restrictions at this time*). This statement has no justification provided and assumes that over the next 25 years no evidence could convince the government to change this policy, a clear result of lobbying by profitable airports.

- There is an urgent need to integrate airspace design encompassing all LGAs (commercial, freight, defence, general aviation) for different airports to allow effective management of airspace to minimize low over-residential operation.

- There is a need for an integrated framework of protections for citizens under flight paths. At present, due to historical differences, lobbying power or the nature of the airport operator etc. some communities are treated preferentially, not on the basis of their needs or circumstances, but on the basis of perceived economic or industry needs. This is unethical: all airport communities should enjoy the same level of protection from the harm of aircraft noise.

- There is a parallel need for a large investment in more effective air traffic control equipment and procedures, or reconsider operational restrictions such as curfews. This should be formalized in a *Long-Term Operating Plan* to make full use of airspace design across existing boundaries to maximize efficiency and minimize community harms

6. AirServices Role

- It is a mirage to believe that Air Services can properly fulfil its conflicted mandate as provider of community engagement while being paid by the industry it allegedly regulates, and being unable to significantly reduce residential overfly by Ministerial dictates preventing any significant operational restrictions.

- There is no clear metric on how AirServices uses the input from the community, nor any specific goals and timelines for <u>reductions</u> of residential overfly. The consultation process is supported by glossy documentation but NCIS is insulting

and the community consultation process divisive, ongoing and unclear. It has zero credibility with affected communities.

- Accepting as an example of a community engagement success Air Services policies of e.g. *noise sharing* is a classic example of focusing on an incoherent simplistic response to an improperly defined issue, and which is moreover deeply unethical and damaging to community cohesion.

7. Sustainability, Security and Resilience

- Not providing funding for independent local research on key issues related to the technical and social effects of aviation, with the exception of PFAS remediation. Over 130 million has been allotted to merely investigate PFAS contamination at Australian airports (the potentially toxic chemical used at airports by DOD), but nothing to investigate the arguably just as harmful and far more widespread issue of aircraft noise pollution

- Fixation on reducing carbon emissions in a highly polluting industry by focusing on green fuels and untested EV and hydrogen planes. Carbon emissions account for a significant but minority portion of pollution and the industry's contribution to global warming.

- Government sponsoring of green fuels: There is an over-estimation of the potential uptake and beneficial effects of green fuels on the environment due to not costing the entire manufacture and supply chain of such fuels. We note that GA is still using 30 year old planes and lead based fuels and dealing with this is more urgent than funding green fuels without full supply chain costing.

- The Green Paper glosses over the effect of technical and work automation, AI and integrated transport alternatives and supplements to conventional aviation (apart from drones). There is an inadequate review of emerging technologies, measures to addressing serious skills shortages (already present in e.g. ATCs), and in workforce necessary to support essential technical infrastructure.

- The conflict of industry growth goals outlined in the Green Paper with the government’s stated goals in other areas e.g. climate, housing etc. is also noteworthy. It is notable that a small proportion of very frequent flyers in Australia (elites, business leaders and politicians) contributes excessively to global warming.

- There is a lack of consideration of the growing risks of failure of communication infrastructure, terrorism, or cyber security issues leading to catastrophic incidents, possibly over densely populated residential areas (given the current lack of focus in reducing residential overfly). There should be alternative plans in case of catastrophic events e.g. wars, pandemics, sabotage, technical failure etc.

- Inadequate consideration of the potential benefits and dangers of AI for drones: considering how mobile phone usage has changed from near zero 25 years ago to the current reliance shows the rapid change possible in technology. There should also be policies to mitigate risks or deal with failures caused by drone operation,

not only in the hands of malicious actors, but also due to failures of design or operation.

8. General Aviation

- GA operations are acknowledged as important, but pilot training should be entirely done over non-residential areas, and hobby pilots and wealthy private owners using air travel for short haul travel likewise banned from residential overfly. Pilot training should be moved to regional airports to avoid residential overfly.

- General aviation activities are not regulated properly for community input and consideration of community impacts and have become a significant cause of community distress due to their frequent, noisy and polluting operations. GA airport communities affected by aircraft noise are not provided with accurate and meaningful information nor involvement in decision making that affects their amenity. There is no obligation for regulatory authorities or airports to act on submissions from communities.

- GA regulation should be brought under the same regulatory umbrella as other aviation activities for consistency.

- There is no proposal to put GA operators on notice, and to provide financial assistance if necessary to reduce the use of highly toxic lead based aviation fuel to zero over the next 5 years, in spite of its use having been banned in every other industry for decades. This could take the form of a reduction in allowable operating hours from current levels to zero over the next 5 years to inspire the investment needed to protect the environment.

Suggested Action Steps to Improve Overall Policy Design

1. We suggest rectifying the obvious flaws with planning aviation policy in Australia that takes into account that operational efficiency and cost are vitally necessary, but not more important than fully assessing the policy's benefit to the entire community.

2. We recommend the assumptions underpinning the policy (some of which are mentioned above) are verified using independent facts and data, and more closely explored as to their potential outcomes, considering not just first order projections but higher order ones.

3. We recommend the use of independent cost benefit studies of various aviation settings developed through a competent scenario analysis of industry development, rather than treating simplistic forecasts as growth targets.

4. We propose that 'what if' approach to considering the macro environment (social, political, technical, economic and environmental) would lead to better policies to support a more resilient industry in practice.

The following questions are not trivial, but these types of consideration are currently ignored in Green Paper.

1. What if policy were designed so that the whole community were taken into account in considering policy option, not primarily business flyers and private corporations? How would policy be different?

2. What if known noise harms were not ignored as an inconvenience and finally acknowledged to be as detrimental to health as current levels of PFAS contamination at some airports (and affecting far more people)? How would policy be different?

3. What if, as a result of the above point, noise limits on actual operations were imposed on actual aircraft operations (in line with noise constraints in other industries), and not completely unregulated so as to avoid potential costs of redeveloping infrastructure and modifying operational convenience? How would policy be different?

4. What if inclusive and independent cost-benefit studies were performed to determine the true benefits and costs (including to the economy, environment and society) of various policy options, instead of assuming a goal of 300% traffic growth and maximizing narrowly defined safety and operational efficiency, supplemented with 'hopes' about e.g. sustainability, lack of major disruptions to the environment (political, social, economic, environmental, communications etc.) green fuels, quieter aircraft etc. How would this affect policy planning?

5. What if policy were designed around *outcomes-based approaches* to regulation where the desired outcomes took account of safety, security, resilience and community amenity and health, thereby forcing industry to creatively adapt and invest in new operations to fit with the ethical and regulatory requirements specified in the outcomes for these key areas, and also optimizing their profits? Such kind of regulation would inspire true change and development more effectively than giving the industry an exemption and hoping that they will self regulate. How would policy design and regulation be informed?

6. Noting that the goal of aviation is as a mode of transportation, rather than being an end in itself, what if aviation was considered in an integrated manner with other modes of transport of passengers and freight to enhance community connectivity, rather than assuming that commercial aviation is the only feasible option? Why is this not considered more than tangentially in the Green Paper?

SECTION 2: THE REGULATORY FRAMEWORK

An Outcomes-Based Regulatory Approach

The Green Paper notes that CASA is reviewing its processes and approach to regulation with a view to implementing risk-based and outcomes-focussed regulation wherever possible, while avoiding prescriptive approaches and ensuring safety remains paramount.

We agree with an outcomes-based approach to regulation suggested in the Green Paper.

However, this agreement comes with caveats. Effective outcomes based management requires pre-conditions which are not considered adequately in the Green Paper:

- defining a clear and measurable set of desired outcomes around a broader conception of public good
- implementing effective data monitoring and reporting infrastructure and processes to manage the OB regulatory guidance of the operators
- having an efficient independent framework to ensure accountability (and provide feedback for potential changes in the desired outcomes due to external factors)

We agree that excessive focus on procedures and too much bureaucracy will hamper the industry, just as it has already hampered the community consultation and engagement process. But *without clearly implementing the above mentioned conditions OB regulation merely becomes an abrogation of government responsibility to proper regulation.*

While CASA and politicians say they care most about the outcome, their actions regulation will often tell a different story of focusing on processes to achieve regulatory outcomes focused on industry profitability and 'efficiency', rather than being inclusive (of all stakeholders), and promoting socially equitable outcomes.

The first and most important step in outcomes based regulation is to properly hear the constituent voice: Individuals and companies benefited directly by aviation profits, as well as those citizens who are affected by it both positively and negatively should be involved in the development of the desired outcomes to ensure that CASA is measuring things that are relevant and valuable to the whole community and not just the industry.

The move to outcomes based regulation should not be just jargon or the latest fad or managerialism, or an excuse to reduce oversight and diminish the already inconsistent levels of accountability in the aviation sector. Outcomes must focus on actively pursuing 'meaningful, measurable good' for aviation providers and the communities they serve.

The government must both define and manage the outcomes effectively.

The most effective OB method to pre-empt inevitable community opposition to the continued growth of the aviation industry using low-flying day and night residential overfly, is to investigate noise levels that cause known harm in the Australian context, and then mandate limits on daytime and night-time noise from such overfly (with sufficient notice) and let the industry work out how to comply with these limits using

infrastructure development, operational modifications, air traffic management, variable fees for aircraft types etc.

A Revised Regulatory Framework is Necessary

Presumably the purpose of regulation is to ensure the highest value outcome for the whole community. Without a full and inclusive cost benefit analysis done on various growth and regulatory directions, the best determination of policy directions cannot be made.

The existing regulatory gap results in affected communities having to arbitrarily, unfairly and unnecessarily absorb the costs of aircraft operations (including noise and emissions) without appropriate consultation or redress and, as such, entirely fails to protect communities from being negatively affected by the well-researched and considerable health and social impacts of aircraft operation.

Changes to enforce properly designed outcomes based regulation is necessary, not just to allow continued social licence, but to guide a policy based on proper ethical considerations.

We hope that the Department is seriously interested in regulating an industry that is truly beneficial to Australian society, and which is resilient enough to maintain course even under the impact of unforeseen but not unforeseeable external shocks.

Regulatory Framework Should Be Consistent

The Green Paper notes:

The role of government is to ensure safety, security, reliability and efficiency in the aviation system, which is unlikely to be effectively delivered by the market.

We suggest that the market (equally as much as government) has a *strong* incentive to deliver safety, security, reliability and efficiency for those areas under their direct operational control, regardless of externally imposed regulation, but much less incentive to minimize aviation risks and harms to the non-client general public.

Increasing profitability in a truly *competitive* marketplace <u>requires</u> constant innovation: to use resources more efficiently, and via increasingly productive processes.

For the Australian Government, it is also informed by its constitutional responsibilities and its interest in matters of national significance.

The Australian Government should also be informed by its ethical responsibilities to the whole community, not only in loosely defined matters of 'national significance'

The core focus of the Australian Government is safety, security and environmental sustainability; ensuring markets operate efficiently and provide critical connectivity; and providing the leadership industry needs to innovate.

Industry needs no leadership to innovate (if the innovation is cost effective without

taxpayer subsides) and to operate efficiently and for aircraft safely.

There is more justification for regulating environmental sustainability, noise control, and mandating connectivity to remote and regional communities in return for licences to operate more profitable routes. There is clearly a role for regulation in matters of national security.

What is not mentioned is the need to properly include in the regulatory framework and to *actively* regulate the currently ignored social costs of industry operation.

These activities are undertaken by departments and agencies with specialist knowledge and expertise across numerous portfolios.

Part of the problem with regulation in Australia is the number of different agencies and actors tasked with regulation, and the poor communication between them, as well as the lack of effective independent oversight of the outcomes (or lack thereof) of such regulation.

…..airports, airlines and Airservices Australia must actively foster the social licence for airport and aviation activity, which will always need to be the subject of an ongoing conversation, otherwise there may be restrictions on aviation activity and growth

This assumes that 'social licence' is merely an 'ongoing conversation' and a possible source of interference with activity and growth, rather than being a central pillar of policy.

The imposition of caps and curfews have significant economic impacts, affecting an airport's productivity and profitability, and limits the ability of airlines to recover from disruptions (for example due to adverse weather). *The Australian Government is not considering imposing any additional constraints on airports such as curfews or movement caps.*

The focus of the paper is the assumption of primacy of productivity and profitability of private and publicly owned airports, rather than the overall community benefit of such airports.

The above wording shows that the Government is acting for the industry and not the community. The fourth step of the 'Balanced Approach" which the government allegedly accepts as a process to manage noise harms is summarily ruled out, showing a clear inconsistency between what is alleged as policy and what is done in practice.

Self Regulation Will Not Work If Costs Can Be Socialized

There must a stronger focus on appropriately conceived outcomes-based regulation, which include the known direct and indirect (including social) costs of aviation. These costs are currently ignored through an exclusive focus on the alleged benefits of airport expansion and airspace efficiency shown in the above statements.

Industry self-regulation, or government-attempted regulation based mostly on industry supplied expertise and data, has not lead to the best outcome for Australian

communities as shown by the recent scandals with airline price gouging and cancellation and slot hoarding policies, multiple GA crashes, and the increasing disturbance to communities by 24/7 operations over residential areas.

The current regulatory framework has clearly failed in the past, and there is no reason it will succeed in the future without a relatively complete overhaul that focuses on key outcomes, not on procedural efficiencies.

As an example of the clear bypassing of appropriate regulatory oversight in Australia, consider the following:

Incomplete Regulatory Oversight In Australia

There is currently nothing within the *Civil Aviation Safety Regulations 1998* that specifically deals with CASA's regulation, approval, or administration of airspace or with CASA's design or designation of airways or air routes.

After more than a quarter century, the applicable section says" "*Note: This Part heading is reserved for future use."*

This allows virtually automatic approval of flight paths and that only those significant changes to flight paths arising from alterations to runways require Minister's approval.

Very significant alterations to flight paths, including for example to accommodate increased capacity or changes to air navigation technology are effectively unregulated and able to be made by the applicable commercially-driven airport operators (and the 'for profit' air traffic services provider, AirServices Australia) without requiring serious community input or consultation.

Perhaps this regulatory failure has arisen from the combined belief that aviation is too important to fail, and due to its technical nature, industry knows best how to regulate itself.

This has meant that the aviation industry in Australia has become highly regulated for the safety and access of aircraft in each LGA, but inefficiently regulated with respect to the overall integration of airspace management, and poorly regulated in the area of consumer protection (the pushback against which has become very apparent recently).

However, it is almost non-regulated with respect to general community protection (for example there are NO specific limits to noise levels or frequencies of low residential overfly due to primary consideration given to operational efficiency.

The costs of aircraft noise have been seriously underestimated, and this noise is not just a 'nuisance' but a known and ongoing harm to large numbers of people, with serious social, educational, environmental and medical consequences, as well as direct economic impacts that have been so far largely ignored and socialized.

(See e.g. https://www.vrt.be/vrtnws/en/2023/04/03/_220-000-people-affected-by-noise-pollution-around-brussel-airpo/ or https://www.aviation24.be/airports/brussels-airport-bru/more-than-1-billion-euros-in-health-damage-due-to-aircraft-noise-around-brussels-airport-environmental-group-says/)

A large proportion of aircraft noise and pollution is preventable through infrastructure redevelopment, flight path design and where necessary operational restrictions. The costs of this prevention are outweighed by the benefits (in a proper and inclusive cost-benefit analysis).

It follows that not vigorously taking steps to prevent aircraft noise impacts on communities within 30km of airports, at levels exceeding WHO recommendations is highly unethical, even when it is assumed that the this imposition is for a 'common good'.

It is morally questionable to impose a known medically verifiable harm on any citizen (e.g. loud night time residential overfly) not for the reason of preventing harm to others, but merely for the cost-savings and convenience of private companies and some travellers, discounted by the ignored social costs and harms borne by the community.

The focus of BFPCA is on the proper and full consideration of regulation to reduce the well researched and documented noise and other harms from residential overfly, particularly at night, occurring at levels and frequencies far higher than internationally recommended as safe.

The current regulatory framework does not even acknowledge these harms, let alone address regulating them. Even while knowing AirServices provides a free 'Assistance Program' (free mental health counselling for affected residents) that community health and well-being in the context of aviation operations are *not even mentioned* in the Green paper.

ICAO Lip Service

The *Balanced Approach to Aircraft Noise Management* should be properly followed rather than selectively used to justify policy decisions.

The primacy of avoidance of operational restrictions where possible in ICAOs Balanced Approach to Aircraft Noise Management (which are questionably assumed to be a best practice guideline for aviation development in Australia) should be revisited in the light of Point 1 above.

In any case, the Balanced Approach could be applied in the Australian context as long as there are actual noise limits which would trigger the use of various noise management approaches in the four step progression specified.

The Balanced Approach document specifies 4 main elements, but the government has excluded one of these (Operating restrictions e.g. caps and curfews without without clear justification and the ICAOs suggested prior cost benefit analysis).

Given the serious economic and health costs of noise, and the inability of the other three approaches to adequately deal with mitigating it at certain airports due to design of existing infrastructure (which did not adequately consider noise

issues, or ignored it as a cost saving exercise), the rush to eliminate any consideration of operational restrictions is premature and unwarranted.

The nine-step process in the Balanced Approach is not being adequately followed, especially steps 5-8, and must be revisited in light of the new data on the costs of aircraft noise both economically and the impacts of social health and well-being.

Additional Regulatory Issues Posed By Drones

Drone and electric vertical take-off and landing (eVOTL) operations have the same categories of safety risks as any other aircraft but regulation of the operators will be difficult, as they will presumably operate in uncontrolled airspace.

These emerging technologies will impact society's conception of safety and security, individual and commercial liability and privacy, and adds another dimension to drafting effective governmental regulation.

In the Green Paper there is limited discussion on the technology in use and how this will be regulated, what is acceptable what is not. From a community perspective, safety, noise control, privacy/security and the freedom from harm are likely to be embraced as universal principles.

As with fixed wing/rotor aircraft flying over public space, just one small mistake could result in crashes that threaten the health, safety and well-being of people in public and private property. Drones pose additional risks of privacy infringement, security breaches, and noise pollution.

Proliferation of these new technologies and their relatively inexpensive access heighten the level of risk. Also, crashes into the extensive above-ground public infrastructure in Australia such as electricity pylons and poles, straying into flight paths of other aircraft and protected (controlled) airspaces in particular, or in urban areas in uncontrolled air space, could result in extreme danger putting many lives at risk. These factors and levels of risk must be taken into account.

We draw attention to the example of France with respect to appropriate regulation of safety. In this jurisdiction, *drones must not fly above 150 metres above ground level and "Drones may not be flown over public areas of urban zones without governmental approval and may be flown over private property only with the owner's authorization."*

SUMMARY OF ISSUES WITH PROPOSED APPROACH TO INDUSTRY REGULATION

- There is no unifying national framework but a mix of national statutes and state and local government legislation. These are assigned to different portfolios, departments, statutory authorities, and quasi-corporates, with inadequate integration between them.

- There is no clear mechanism to require accountability for not following regulations or imposed conditions on development, or misleading the community

in this regard. We do not know of a single instance where any person or operator was found guilty of doing so and forced to rectify the harm caused and compensate those negatively affected, in spite of many clear examples where regulations were sidestepped or ignored.

- There is no mechanism to repair the harms done by previous failures of regulatory intent

- Regulations are applied without a proper cost-benefit analysis: For example, they essentially ignore the impact of, or dramatically and deliberately underestimate such impacts, and there is no attempt to quantify the direct and indirect costs of aircraft operations (such as noise, air and other pollution) on human health, community amenity, devaluation of property, mitigation or relocation).

- The role of the Commonwealth regulator (CASA) is limited to managing aircraft safety and efficiency without any charter to protect Australian communities from being negatively affected by aircraft operations. *There are currently no limits on noise levels or frequencies of low residential overfly.*

- Regulation of community impacts relies on legislation designed for another purpose (EPBC Act) to cover the impact of aircraft operations on community. This is completely inadequate.

- The Green Paper proposes new regulations to limit residential development around new airports, but does not protect residents around existing airports from the harms of or expansion of existing airport traffic and flight paths

- Regulation of the community impact of aircraft operations is assigned to AirServices Australia (ASA), a government business with a clear conflict of interest (funded by the industry) and which has no regulatory power to limit aircraft operations. The Statement of Expectations for AirServices Australia currently does not require the *Noise Complaints Information System* to be anything more than an information response and data logging service.

- The significant number of members report that the Department's 'Community Aviation Consultation Groups' (CACGs) for federally-leased airports need fundamental reform to be effective and have any credibility with affected communities.

- GA airport communities affected by aircraft noise have no means of active involvement in decision making that affects their amenity and health from these operations.

- The Department limits monitoring the performance of regulators to merely a semblance of financial oversight and explicitly states that they do not monitor the day to day operations of these regulators that would affect communities. This means that technocrats focus on trying to achieve maximum operational efficiency without proper consideration of the social costs of this focus.

- The current regulator of noise harms (ASA and ANO) has no incentive or means to diminish overall noise 'impacts

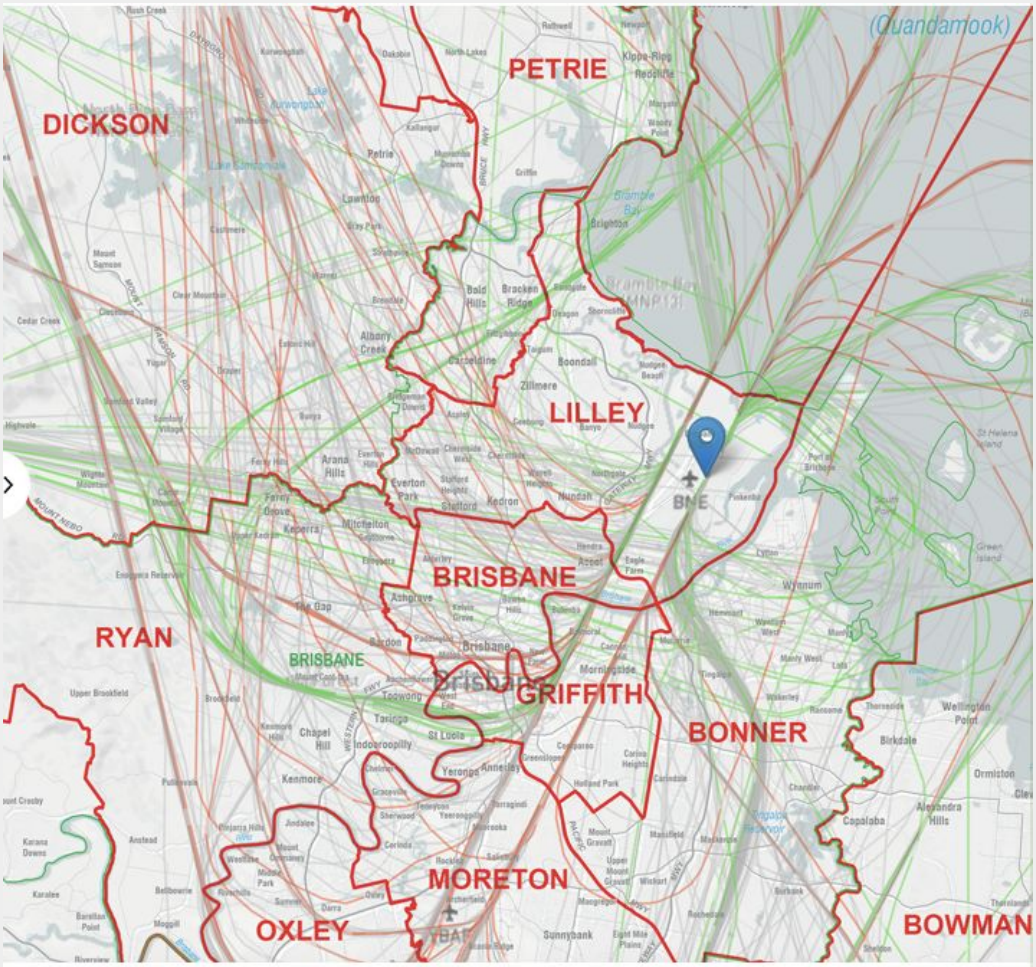
Flight Paths Over Brisbane – A Clear Case of Regulatory Failure

Most people never received any notice of the massive changes to flight paths impacting their homes, and if they did, BAC has never revealed there would be anything like 150 planes per day.

For example, on its widely publicised online Flight Path Tool, BAC inextricably omit over 100 turboprop flights each day over the suburbs to and from the new runway. BAC has kept the forecast number of turboprop flights hidden from the public for over 15 years even though these aircraft typically have the same noise level as a Boeing 737.

Neither AirServices nor BAC provided (or even today provide) accurate and clear flight and noise forecasts for affected areas.

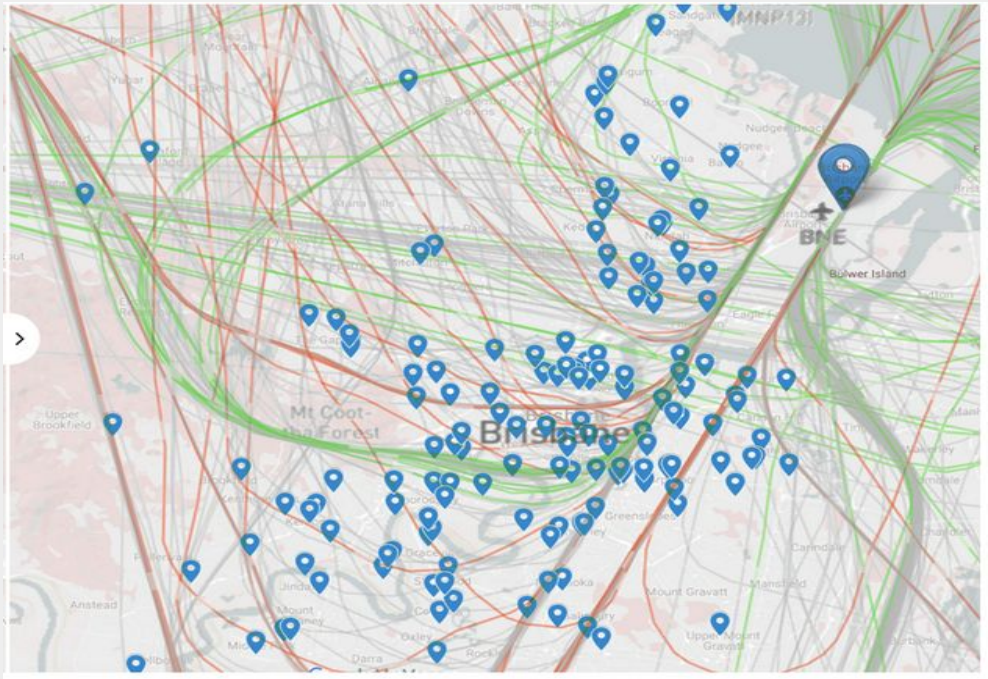
The flight path maps also debunk the claims made prior to the approval of the new runway, along with promises of a curfew if necessary, that this would effectively mitigate noise.



The flight path design is a long narrow tunnel that takes both inward and outward bound aircraft and does not comply with AirServices own best practice principles to avoid this design.

People can't believe that billions were spent simply to move and concentrate the noise pollution 2km west, over a larger population and it hasn't solved anything other than increase the airport's operating capacity and profit.

Aircraft in Brisbane fly over or near dozens schools even while the noise harms of aviation overfly on children's education has been well researched.



To make matters worse as the airport is one of the few airports in the world without movement caps and with no curfew, residents could soon be seeing flights every 2 to 3 minutes 24/7 around the clock. Many of the noise spikes from aircraft noise, even up to 30km from the airport are over 65-70dB.

This is absurd in a community where operating a lawnmower has more noise controls than jet engines operating 24 hours a day.

BAC has just released their new $5b infrastructure upgrade master plan which spends NOTHING to mitigate the past errors and mitigate noise. This is the result of being able to socialize costs and privatise profits.

The government must design the White Paper to manage and properly regulate the aviation industry, and force a review and remedy of past regulatory failures.

Action Steps

1. We suggest that proper consideration is given to rectifying the obvious flaws in aviation regulation in Australia that takes into account the above issues with more than lip service. This applies to the example given above of a priori ruling out regulation which is based on international best practice in favour of industry profits. A partial approach to modifying individual elements of the regulatory framework will not resolve these issues.

2. We recommend a comprehensive public review of the existing aviation policy and regulatory framework and the complete redesign of an integrated airspace, with community concerns and amenity being a central feature of this redesign.

3. While a detailed consideration of changes to the legal and regulatory framework is beyond the scope of our submission, further comments on various aspects of the points above will be mentioned in the following sections of this submission.

4. We strongly recommend a national working party comprising policymakers, community representatives and environmental noise professionals to review evidence of public health impacts from aircraft noise and consider new regulatory approaches to aircraft impacts on the community which recognise and consider how to mitigate the scientifically proven negative impacts on human health of aircraft operations, based, minimally, on the World Health Organization's (WHO) international standards;

5. The scope should be wide enough to consider the relocation or redesign of existing aviation infrastructure, and impose operational restrictions on a case by case basis to allow management of the human health impacts of aircraft operations, taking into account aviation safety and efficiency.

6. In regard of the point above, we recommend that (after a review of the regulatory oversights evident in the decision to implement a New Parallel runway in Brisbane, based on maximum traffic and minimum cost, but ignoring the inevitable noise problem created by this decision) the cross-runway at BNE be recommissioned to allow more flexibility for flights to be directed over the water in all weather conditions and to enable the avoidance of any residential overfly between 10pm and 6am.

7. We strongly agree with the suggestion in the Green Paper that the Noise Ombudsman ANO be made independent, but add that is must be independently and adequately resourced and have powers to demand documents and enforce compliance with existing regulation.

8. There is a need to invest regulatory oversight of the entire aviation sector (including the air traffic control service provider, Commonwealth departments and airport lessees which affect aircraft operations that impact communities) in the hands of an new *Aviation Regulator* which is not limited merely to noise mitigation and which is truly independent (politically and financially) and appropriately resourced.

9. *We would add that the Regulator should have a resource capability to monitor the activities and effects of aviation overfly, and be adequately invested with the powers to require documents and data from industry organizations, be able to enforce existing regulations if these are violated, and be required to regularly report to the Parliament and the wider Australian community on the success of the current framework and the need for future changes in oversight.*

10. Part 71 of the Civil Aviation Safety Regulations 1998 needs to be populated with content articulating CASA's responsibility with respect to the regulation, approval, and administration of airspace and the design and designation of airways and air routes, including the need for public consultation to be undertaken in relation to any proposed change to flight paths that significantly changes the patterns or levels of aircraft noise.

11. A new subparagraph should be added into the definition of "major airport development" in section 89(1) of the Airports Act 1996 as follows: "altering a flight path in any way that significantly changes the patterns or levels of aircraft noise"

12. Section 81(2) of the Airports Act 1996 should be amended to enable the Minister to approve a Master Plan with conditions that must subsequently be legally enforced.

13. The EPBC act as a measure of environmental impact of aviation development should be replaced with a more inclusive act that specifically addresses aviation issues. For example, Section 528 of the EPBC Act defines Environment to include: (a) ecosystems and their constituent parts, including people and communities; and also includes the social, economic and cultural aspects . This definition is ambiguous with respect to the human environment and limits its consideration to be only part of a broader ecosystem. We suggest that this is a major flaw in policy and legislative drafting and must as be rectified

14. It is imperative a new *Aviation Impact Protection Act* include clear definitions of significant social impact, particularly in relation to noise with the proposed increase in the suite of aircraft. No such definitions currently exist and leaves regulators as well as communities affected without any agreed basis to address the apparent conflict between community noise harms and operational efficiency. The Act must provide clarity about 'environmental (and social) significance' for community noise impacts. This can then be translated to appropriate settings i.e., road, aviation (fixed wing, RPT, helicopter, drone eVOTL etc.)

15. The term 'significant impact' is a continual point of ambiguity within the aviation industry particularly with regard to how flight path changes are evaluated. The Act should more clearly inform 'environmental (and social) significance' for community noise impacts, which can be translated to the aviation context.

16. A clear linkage must be established linking the potential health impacts of all forms of aircraft noise in Australia to national guidelines and regulatory criteria. This would provide much needed transparency to communities, the aviation

industry, its regulators on acceptable aircraft (all modes) of noise impacts for residential settings.

17. A nationally consistent approach should apply to airspace management. We consider that there is no need to alter the responsibility for management of aircraft and airspace from the Commonwealth to State and Territories. There should be a national regulatory approach to air space management.

18. There should be a nationally consistent policy across airport operations, except in regional areas where more flexibility might be desirable. Treating some capital city airports as different to others based on 'political' considerations (e.g. curfews apply in Sydney but are explicitly excluded even from consideration in other capital and regional jurisdictions). For regional communities, these kinds of restrictions should be decided by council, and in other areas by the state and federal governments.

19. Developing policies to better cover both controlled and uncontrolled airspace and users of that airspace. For example, Uber-air taxis are likely to be mostly airport-city at 1500ft so they will be in controlled airspace to SFC (an airport's CTR) and therefore under AS/ATC jurisdiction. However most commercial drone/eVTOL flights (Parcel delivery etc) and private drone will be in Uncontrolled Airspace.

Enforcing Legal Obligations

Proper mechanisms to enforce the legal obligations of airports and airlines should be defined.

The legal obligation of airports to comply with terms and conditions of any requirements (and indeed even the original EIS requirements and subsequent iterations or EA's) in their future operation should be properly enforced by Government

Some of the terms of past EIS/EA were (and are apparently still are) being breached (e.g. in the case of the 2018 EA in Brisbane which was kept secret, was clearly inadequate and apparently deliberately misleading WRT this major infrastructure upgrade.

There should also be legal obligations on airports and airlines to regularly and transparently report on their research and actual and projected economic/traffic models (which are often based in simplistic models and cherry picked data) and refrain from scare tactics and headlines when issuing industry press releases based on such research.

PRECONDITIONS TO APPROPRIATE REGULATORY OVERSIGHT

These Inputs Need To Be More Appropriately Defined And Procedures For Monitoring And Reporting On Them Established.

A. <u>Aircraft Safety Must Be Comprehensively Defined</u>

The primacy of aircraft safety in aviation policy is acknowledged, as is the important nature of the industry's appropriate expansion in Australia. However, the current definition of *safety* narrowly assumes it to be the integrity of the aircraft (and passengers and crew) and prevention of catastrophic accident as the sole focus of attention.

The development of drone technology along with newer research on noise effects on health and safety makes it imperative to consider safety in a wider framework.

A proper definition of aircraft safety should include that of the aircraft itself but not be limited to this. Safety of machines in other jurisdictions includes not only of the machine and its operators, but includes potential harmful effects on other persons and property.

Aircraft safety should encompass all those workers and passengers who have contact with the aircraft (e.g. while on the ground at the airport) and extend to those citizens under flight paths who may suffer from falling objects, pollution, privacy intrusion, noise harms or even personal or property injury from accidents.

In this context, safety and noise mitigation are NOT mutually exclusive. The latter is an essential part of the former when its definition were appropriately conceived.

B. <u>Proper Cost-Benefit Studies Should Precede Policy Choices</u>

Policy planning should allocate resources for a fully independent cost-benefit analysis of suitable viable options to achieve desired goals - including private / social benefits and costs - (not based merely on self-interested industry modelling).

Such considerations avoid the a-priori elimination of any clearly practicable consideration for reaching the said goals.

Economic impact analysis should include all socio-economic and health costs and economic benefits (appropriately discounted with costing of public funding support and the of rectifying climate and pollution damage done by the industry) in economic impact assessments of air transport proposals, and application of accounting for the *social equity* of such impacts on different sectors of the population e.g. frequent flyers, non flyers, residents under flight paths, landholders, local government costs for land use planning restrictions required by airports etc.

The government needs *fully independent expert opinion* on the currency, relevance, and credibility of data cited on air transport's projected economic benefits, and the concurrent inclusion of currently ignored costs (economic and social) which have been imposed on the community while private companies are primarily the economic beneficiaries.

For example, narratives around job creation in air transport promoted by industry to support lack of restrictions on noise harms ignore that the amount of employment in the industry created by passenger growth has been diminishing over time. The most significant growth has come through automation and efficiency savings, not job creation.

Outbound air transport growth runs counter to the interests of the domestic tourism industry as tourism cash is headed overseas and this offsets some of economic benefits of inbound tourism, apart from ignoring the costs of security measures and public infrastructure required.

C. Independent Health Research Should Be Commissioned In The Australian Context

The health damage caused by aircraft noise is seriously underestimated. The economic impacts are also ignored: A study of Brussels airport calculated health costs for local residents would amount to more than 1 billion euros annually. The government should employ *independent locally based research* into the assessment of the health harms of aircraft operation, for those in and outside of the aircraft.

According to the European Environment Agency, noise pollution is the second largest environmental threat to health (only to air pollution).

Apart from the environmental effects of micro particulates and other emissions, this should focus particularly on the noise harm of sleep disturbance due to intermittent environmental noise to confirm overseas research evidence that aircraft noise in the late evening and night-time may be associated with increased risk of many conditions including blood pressure disturbance, life expectancy, cardiovascular hospitalizations and deaths.

WHO guidelines (2018) concluded that health effects can occur at lower levels than ANEF measurements used in as guidelines (but not mandated) Australia. Proper noise monitoring and research in the Australian context should be specified and funded in the proposed White Paper.

Undisturbed sleep of sufficient length is essential for daytime alertness and performance, quality of life, and health. The epidemiologic evidence shows chronically disturbed or curtailed sleep is associated with negative health outcomes such as obesity, diabetes, and high blood pressure is overwhelming.

The Hyena-Study of Dr Lars Jarup and al 2008, from Imperial College of London with nearly 5,000 participants between 45 and 70 years. The study found that noise from night flights causes immediate increases in blood pressure in sleeping people, even if they are not woken up by the noise. It discovered a 14% increase in the risk of high blood pressure (hypertension) for each 10 db increase in night-time aircraft noise. Hypertension can lead to heart problems and even early death.

Scientists found that disturbed sleep from night-time aircraft noise can trigger acute cardiovascular mortality. The association was similar to that previously observed for long-term aircraft noise exposure. (Foundas E., and al 2018, Saucy A., and al 2021). In addition, they reported that less than six hours of sleep per day increased the risk of

obesity, glucose elevation, dyslipidemia, and elevated blood pressure. For these reasons, noise-induced sleep disturbance is considered the most deleterious non-auditory effect of environmental noise exposure (Basner M. and al 2017, Patrick & Harrison 2018).

Aircraft noise is the most detrimental environmental effect of aviation. It can cause community annoyance, disturbances of activities and communication, disrupt sleep, adversely affect academic performance of children, and could increase the risk for cardiovascular disease of people living in the vicinity of airports and can lead to stress reactions characterized by an activation of the sympathetic nervous system and/or increased levels of circulating stress hormones (Münzel T., and al 2016).

Psychophysiological stress reaction to environmental noise is considered as a primary causal link to cardiovascular disease development. Aircraft noise is highly compelling in this consideration as it is perceived as the most annoying and sleep disturbing among all transportation sources. Long-term exposure to nocturnal aircraft noise is associated with sleep disorders and physiological circadian blood pressure profile alterations (Rojek M., and al 2018).

The study of Kröller-Schön S., and al 2018 was the first to demonstrate:

- increased markers of oxidative stress and inflammation in noise-exposed patients with established coronary artery disease,
- a significant impact of sleep vs. awake phase aircraft noise exposure on the vasculature,
- the stimulatory effects of air-craft noise on superoxide production in the brain
- the protective effects deletion on aircraft noise-induced vascular dysfunction, cerebral superoxide production and neuro-inflammation.

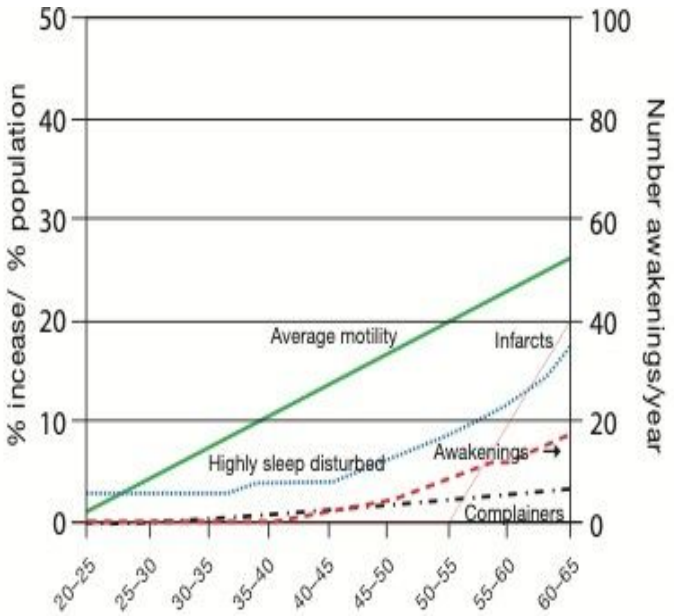
The presented results may explain, at least in part, why sleep phase noise leads to cardiovascular diseases and may also provide an explanation why aircraft noise is linked with cognitive impairment including retardations of learning and memory capabilities in children. Thus, strong preventive measures should be considered to reduce night-time aircraft noise, without excluding operational restrictions (feasibly employed at many major airports) if other measures including redevelopment of appropriate infrastructure are not sufficient to achieve this.

The social cost of noise and air pollution in Australia is unknown but certainly the currently completely ignored economic cost would amount to billions every year.

The obvious gaps between insufficient noise research, an underestimated noise health impact, and also insufficient legal protection were highlighted by the recent WHO environmental noise guidelines for the European Region, urging for more mechanistic as well as large-scale epidemiological studies on noise–health interactions (Kempen and Al 2018). Thus, results from epidemiological studies, more recent noise research data, and the new WHO noise guidelines contain a message that is loud and clear.

This should be the catalyst for revised policies and actions to ensure that there is an equitable balance between economic benefit from transportation and the adverse side effects of transportation noise for health and well-being. The cost and long-term consequences of inaction must be considerable (Banatvala J and Al, 2019). We should have the right to an eight hour sleep and better health.

Fig. 5.2
Effects of aircraft noise at night*



Source: European Commission, 2002 a

** Average motility and infarcts are expressed in percent increase (compared to baseline number); the number of highly sleep disturbed people is expressed as percent of the population; complainers are expressed as a percent of the neighbourhood population; awakenings are expressed in number of additional awakenings per year.*

F. <u>New Noise Metrics & Measurement Methods</u>

The Australian approach in aviation infrastructure planning of modelling noise prior to development and then having no specific limits on noise from residential overfly is a licence for the industry to socialize noise costs to the community. It is acknowledged in the Green Paper that there is a need to review and possibly replace the ANEF noise metric.

Current noise maps, manufactured using industry sponsored models and data , are not easy to calculate, not intuitively correlated with the experience of loudness and disturbance, not remotely reflective of actual noise levels, and grossly under-report the areas affected by aircraft noise.

There has been no development of comprehensive maps of N contours to supplement ANEF as promised in the 2009 Aviation White Paper – a policy implementation failure perhaps because industry does not want to acknowledge the true extent of the problem?

New measured data of actual noise levels and effects can be collected and estimated quite accurately using ASA existing noise monitors in some cities. If noise monitoring is not available every 1-2km along each flight path used more than 10 times during the day or ever at night, more monitors should be installed to monitor the noise experienced along the flight path through flight operations.

Evolutionarily, the ear reacts to changes in noise from the ambient level, or noise spikes, and not averaged smoothed and modelled levels of noise energy etc.

Whatever noise metric is selected or developed should be

- simple and intuitively meaningful to the general community
- use standard measurements e.g. dB so they can be compared across jurisdictions
- correlate closely with actual noise disturbance or harm
- be verified with real world data
- be compatible with levels recommended to prevent researched noise harms
- be compared with typical ambient levels at a particular location

For this reason, a simple assessment of noise events over a certain threshold at each point within 50km of an airport (e.g. N40, N50 and N60 etc. events) will almost certainly be be more reflective of perceived and measured disturbance. This was proposed in the 2009 Aviation Policy paper but has not yet been implemented, over 15 years later.

Noise contours should plot both day and night noise event maps, and be adjusted for setting noise levels by consideration of ambient background noise. It is important to validate the calculations with actual noise measurements, given the variability caused by aircraft type and operation, topography and weather etc.

With the availability of noise monitoring equipment and at many locations historical noise data, a simple record of on ground measurement of noise event spikes (Lmax maximum decibel peak) would provide an approximate and easy to measure indicator of community noise disturbance in a particular area.

G. Defining Acceptable Noise and Regulating Maximum Noise Limits

Noise data provided by manufacturers to enable the certification of aircraft in Australia by CASA has virtually no bearing on the actual noise residents experience.

Social research in a local context, taking into account extensive research on noise harms in other jurisdictions, would enable the establishment of appropriate noise limits during the day and night, taking into account the frequency and duration of noise spikes.

Once noise harms have been established, these should be used to define noise limits from aviation operations over affected communities. *In setting these limits primary consideration should be given to protecting the community, rather than allowing operations to continue unimpeded.*

New research into noise harms led to recent recommendations by the WHO for greatly reduced limits of allowable noise (as low as 45dB night time) and current aircraft operations should modified in this light, rather than the proposed noise limits being increased to allow 'operations as usual'.

We note that building attenuation in Australia is generally far lower than in US and Europe, meaning that inside noise levels are higher for the same external level of noise.

Another issue to note is that in the development of aviation design of the 'new generation' of quieter aircraft, there is a trade off in the fuselage and engine design between fuel efficiency and noise mitigation. Industry should not favour the former as dramatically more important than the latter when selecting new aircraft, and use the future use of quieter aircraft as a reason to bypass noise controls. This trade-off is another reason to regulate noise limits.

H <u>Publicly Accessible Data For Community Monitoring And Consultation Is Inadequate And Aviation Statistics Must Be Transparently Available To Policy Makers And The Community</u>

Each airport in a particular city should collate, publish (or measure and calculate if required) the following statistics to be fully transparent so that the true nature and effect of noise reduction claims by airports and ASA can be properly assessed with respect to potential reduction in health harms:

(1) TOTAL flights over residential areas in the city every month (daytime and separate figures 10-6 night time) at under 8000 ft, and a comparison with the same figures in the previous six months. (This assumes that flight noise Lmax for flights over 8000 feet above ground level will be under 40-50dB).

(2) TOTAL flights within 3km band along scheduled flight paths for each suburb every month (daytime and separate figures 10-6 night time) at under 8000 ft, and a comparison with the same figures in the previous six months

(3) updated N50 and N60* contours (N60 for daytime and N50 from10pm-6am night time operations) Over N60 is an unacceptable level of noise harm, day or night and the contours should be used to decide on areas which experience unacceptable levels of noise.

*N60 = contours where N= number of flights over 60dB Lmax in an area based on actual ground measurements.

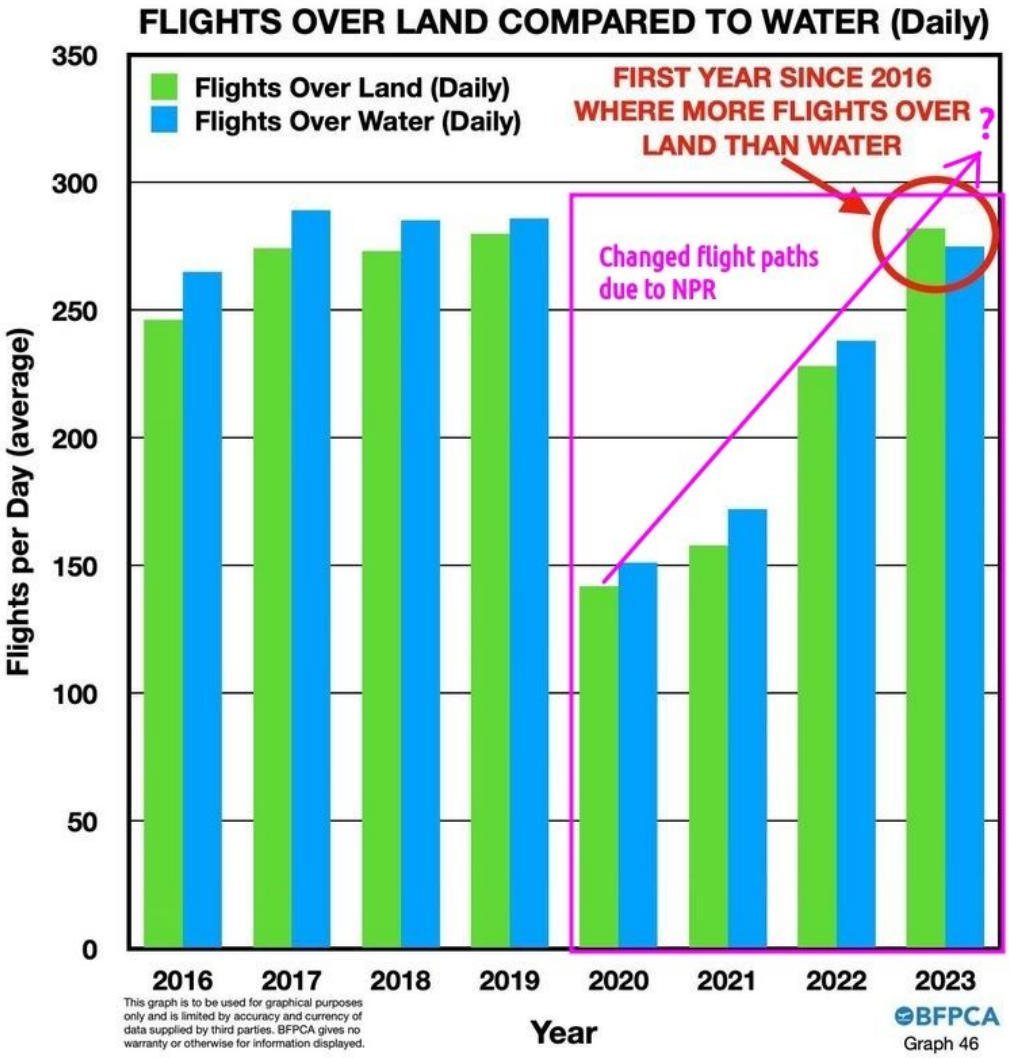
This measurement should replace the the existing and clearly flawed modelling. If the airports and ASA don't have or are unwilling to report such data, how do they and the public know there is any overall improvement?

If they do have the data, citizens should be able to check the alleged implementation of noise reduction measures in aggregate, as well as at any particular location. These would render more obvious the current approach of 'noise sharing' as the sham which it is.

Although it is claimed that AirServices collects and publishes noise data for citizens to access, in fact it is opaque due to constantly changes in flight paths, frequent interruptions due to 'operational factors' and repairs, and the data is presented in split format depending on different weather conditions, the measurement parameters not properly specified, often with misleading context. This makes it next to impossible to assess the true impact of noise from publicly available information.

For example, charts and diagrams enabling the assessment of any noise reduction measures are fragmented and partial. In contrast, data such as the following chart

(compiled independently using AirServices data) clearly shows the outcomes of ASAs so called *Noise Action Plan*.



There are now more flights landing and departing over land daily compared to over water. This is the first year since 2016 (first accessible records) where this has occurred. "More flights over the Bay" turned out to be false promises. This data under-reports residential overfly in that it does not take into account the frequent occurrence of flights that loop back over land after departing over water, or which fly over residences on the way to a water landing approach.

SECTION 3: GENUINE COMMUNITY ENGAGEMENT

Community Engagement must be fully independent with the goal of meeting community expectations of *measurably reducing* residential overfly in a specified timeline.

The current attempts at community engagement have largely failed in their alleged goal of creating community support for the largely unrestricted expansion of the industry, with its concomitant noise harms.

The primary reason for this is that the engagement is conceived as a way to 'manage' community opinion so as to not prevent operational restrictions on aviation growth, even where such growth is based on very noticeable harm and inconvenience to residents, and enabled by political decisions that appear to favour the industry over the community's health and well being.

The discontent with current engagement processes is exacerbated by the lack of prior consultation and the history of broken promises in the development of new airport infrastructure and flight paths, for which no person or organization has ever been held accountable.

As the organization tasked with community engagement, *AirServices* is known to have a serious financial conflict of interest as they are funded by industry. They present a fragmented and opaque series of proposals which do not allow citizens to properly assess the effects of the sequence of partial proposals proposed to them.

Their NCIS, managed by AirServices is at best insulting: long delays, form letter responses, blocking of legitimate complaints, and the obvious lack of any results as the outcome of any complaint. Air Services, politicians, the ombudsman and airport all keep pointing at someone else being responsible for the noise issue.

Changing The Focus Of Engagement Away From A PR Exercise

The issues of aircraft noise and other community engagement concerns must be dealt with in a more transparent and effective manner by actually changing the framework to genuinely understand citizen concerns and work out a plan to mitigate the problems, rather than trying to 'educate' citizens to accept the inevitability of 24/7 aircraft noise (untrue) or create community division with unethical schemes such as noise sharing, which is a disguised attempt to get community tacit support for even more flight paths (on trial of course) to allow capacity increases in the future without operational restrictions.

The Green Paper proposes putting community engagement responsibilities back into the hands of the airports and the industry, essentially continuing the tradition of self regulation.

We do not agree with this proposal. It has not worked in the past and is not working now with the alleged engagement bodies including AAB and ACCGs largely stacked with industry representatives.

This is an abrogation of government responsibility to the community, and a recipe for disaster in preventing an enormous social and political push-back against future aviation growth (commercial, freight and drone) as the current problems become exacerbated.

We insist that community engagement is independently funded and conducted by suitably qualified experts (both in the technical and social sciences sense) who are <u>independent</u> of any of the stakeholders.

It is already known what the wider community want now, and will want for the foreseeable future:

- **Freedom from noise, environmental pollution and other harms**
- **Socially responsible aviation development backed by a real commitment in the industry to reduce the social impact of their operations**

If there were a sincere intention to put community as central to planning by government airports and airlines, there will be automatic social licence for industry development, and less need for extensive, inconclusive, unclear and divisive community engagement programs, which at present are largely theatrical.

Air Services Community Engagement Theatre

Airservices Australia is preparing a Community Engagement Standard for flight path and airspace design changes. This work is an important step in communicating a standard process for the community.

The proposed Standard:
• outlines 10 'engagement principles' that set clear expectations for the community about how the engagement will be conducted….
• outlines the 'benefits of effective community engagement' which are expected outcomes, and 'drivers for flight path and airspace change' which provide reasons for why changes are needed……

This document is impressive, but its implementation is opaque and there is a serious conflict of interest within the organization paid by the industry. The document specifies how Air Services should appear to listen to the community and then design flight paths according to *unstated goals* which are mostly influenced by the industry.

Unfortunately, the community engagement process is viewed by residents as opaque (if they are contacting AirServices for the first time) or misleading if they have interacted with ASA before, and are more educated in the series of events and lack of industry oversight that is leading them to make a complaint.

The engagement has not resulted in a more 'accepting' community because it has no public goals to reduce noise and even no metrics for using community feedback.

Add to this that the engagement process is time consuming, there are weeks of delay before a reply is forthcoming, multiple complaints from one person (for multiple noise incidents) are apparently ignored, and that the response is a form

letter essentially saying that air noise is not regulated.

The consultation process regarding flight noise 'management' is ongoing (endless), confusing, fragmented (no clear picture of the overall plan or goal), divisive to the community and aimed at getting a nominal mandate from citizens to continue the misleading but profitable (for industry) strategy of avoiding the real issues above and socializing the considerable costs for which they are not currently liable.

The process of engagement appears to be that the policy is decided and the engagement is to get tacit approval of changes by offering a series of unpalatable choices, or to educate citizens on why their expectation of living without serious disturbance is unrealistic. The process also causes community division e.g. by choosing among flight paths in their local area – any preference choice merely moves flight paths to another area.

This is not genuine engagement to find out what the community wants (which is obvious without lots of engagement theatre) and to help them achieve it. The information presented at engagement sessions is fragmented and does not allow residents to make a proper assessment of proposed changes.

For example, Airservices seems to take the view that SODPROPS is limited by environmental factors and capacity constraints. BFPCA suggests that it is the number of flight movements that should be limited by the ability to safely use SODPROPS. That is how this project was sold to the community by Brisbane Airport and Airservices.

Action Steps

- Designing community engagement is useless unless the community feedback is used to deliver what the community actually wants, and which can be practicably delivered by government and the industry, in this case noticeable reductions in noise.

- Contracting independent technically competent bodies to conduct community engagement (AirServices is funded by industry and is not independent, and has arguably failed to deal appropriately with community engagement to this point)

- Engaging independent noise data collection and research in the Australian context regarding community concerns e.g. to supplement the overseas research into the social and medical harms of aircraft noise

- Publishing clear noise data, maps and metrics to allow proper community oversight of noise, along with clear changes to operations that might affect noise levels. Maps should show noise levels and statistics for any specified area.

- Proactive regulation of industry more vigorously to deal effectively with community concerns in the meantime. *Communities must get a sense that their voice is being heard and acted upon.*

- If proper noise limits were set to prevent citizen harm, and enforced, there will be much less need for community engagement in the theatrical manner in which it is currently conceived, based on the incorrect and unethical assumption that aircraft noise is merely an inevitable harm to be 'managed' through community engagement.

- Where genuine engagement fails to deliver a satisfactory outcome to the community, an independent *Noise Ombudsman* should investigate community concerns. The Ombudsman should have a resource capability to monitor the activities and effects of aviation overfly, and be adequately invested with the powers to require documents and data from industry organizations, as well as be able to enforce existing regulations if these are violated.

SECTION 4: COMMUNITY CENTRIC INFRASTRUCTURE PLANNING

The best tool to manage aircraft noise is through effective land-use planning. The National Airport Safeguarding Framework (NASF) provides guidance on mitigating aircraft noise. Implementation of NASF is ongoing but inconsistent across jurisdictions.

NASF Guideline A, Measures for Managing Impacts of Aircraft Noise, provides guidance to decision-makers of all three levels of government to 'manage the impacts of noise around airports, including assessing suitability of developments'.

Guideline A further states 'governments recognise the merits of utilising a range of noise measures and tools in conjunction with the Australian Noise Exposure Forecast system to better inform strategic planning and to provide more comprehensive and understandable information on aircraft noise for communities'. A 2019 NASF implementation review identified the incomplete introduction of planning mechanisms…..

Land use planning (if better regulated than currently and based on avoiding a level and frequency of noise causing serious disturbance and harm to any community) can offset some harms for future development *but does nothing to mitigate the significant negative social and health effects of existing airport development and lack of regulation.*

The process of infrastructure planning is acknowledged as inconsistent in the Green Paper and this will likely continue unless the regulatory framework is overhauled as noted in section 2 of this submission.

In particular, the current framework requiring an EIS is insufficient to account for the economic and social factors of a proposed development.

The need for development should be considered in conjunction with a need to

- relocate or modify existing infrastructure
- integrate with other transport options
- increase options for connectedness by air, taking into account current and future planned capacity
- reduce the environmental impact of aviation
- comply with new regulatory limits of maximum noise levels

The ANEF has been recognised as inadequate for decades, and the Green Paper merely opts for *consideration* of alternatives, when a range of concrete proposals should have already been put forward for comment.

There seems a reluctance to seriously measure noise levels, publish these in accurate noise maps, and correlate the results with known levels of harm, perhaps because of the presumed restrictive nature this might have on 'profit as usual'.

There may be less scope to avoid noise issues in situations of urban consolidation and infill or redevelopment of brownfield areas, but consideration should be given to the appropriate nature of that development and the balance of public interest.

This is unclearly expressed: presumably it means that economic considerations of airport management will prevail. The metrics for such a consideration the avoidance of noise and what is considered as 'public interest' are undefined and therefore meaningless.

The current planning process is not merely inconsistent (as the Green Paper acknowledges), but it is also inadequate and not effectively enforced.

For example, the 2018 EA in Brisbane was done internally using flawed modelling, had no external validation except by Air Services, and appears to have been performed in such a way as to avoid scrutiny for a Level 1 or Level 2 change. Assumptions were tweaked about impact of flight path changes for the new parallel runway so as to show 'no significant impact'. It was accepted uncritically by the Minister.

Review of Brisbane Airport Infrastructure to Prevent Noise Harms

For unexplained reasons, probably mostly to do with cost saving and boosting traffic volumes, along with the assumption that noise costs can continue to be socialized, Brisbane Airport chose to develop the New Parallel Runway so that both runways point directly at the most heavily populated areas of Brisbane.

Cross runway recommissioning (technically feasible at present) is the only currently viable way to make over-the-water arrivals and departures in all weather conditions a potential reality. This was what was promised to Brisbane residents

SODPROPS alone with existing parallel runways cannot do it. So the oly solution is either curfew and caps, or some caps plus a new cross runway.

The configuration of cross and parallel runways is used in other busy airports although it does reduce peak traffic volumes, and it requires greater training for ATCs which are two reasons why BAC is opposed to it.

Brisbane Airport has just released their new $5 infrastructure development plan with precisely nothing allocated to reduce noise harms of previous infrastructure design which socialized noise costs and maximized their 'operating efficiency'.

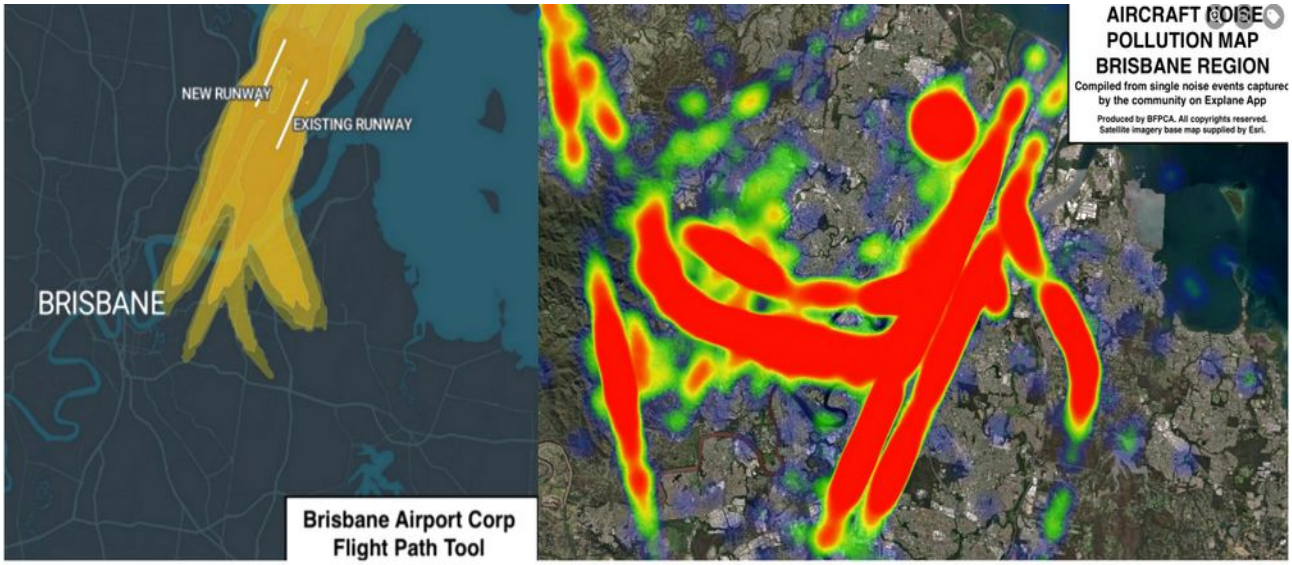
Brisbane Airport Corporation should be given an ultimatum: night time curfews and caps OR a cross runway and more lenient caps. They will find a way to maintain operational efficiency in a manner that maximizes their profit subject to the health and safety citizens of Brisbane being considered as important as their very profitable operation.

Distance from the airport or financial cost as metrics used to justify planning regulation around airport development and flight path changes are irrelevant in regard of community concerns around prospective noise harms. *What is relevant is the actual noise measured on the ground.*

Areas Likely To Experience Noise 'Disturbance' Understated

The following noise maps are not comparing like data, so *they are not meant to be directly comparable*, but merely illustrative that the areas impacted by noise are a lot more extensive than the industry-claimed version, which understates the true lived impact of the infrastructure development.

The community cannot make appropriate judgements about the impact of proposed infrastructure on their amenity, if realistic data is not provided.



Comparison of alleged noise with actual noise

No data to allow comparison of the pre-NPR alleged noise maps and current measured noise level contours is available, in spite of multiple requests for this information.

Action Steps

1. The use of an EIS or EA to assess the impact of new development is insufficient. A proper impact study guidelines for aviation infrastructure development can be based on the requirements for an EIS but these must be expanded to include social impacts of noise and amenity harms, based on local and international research.

2. We recommend a review of the feasibility of recommissioning and redeveloping a new cross runway in Brisbane to allow the the promised level of over the water operations in a wider range of weather conditions. If this is technically feasible it should be implemented with funding from BAC and the Government to reduce the serious problem of residential overfly in Brisbane at night. Curfews should be imposed in the meantime, effective immediately.

3. We propose the development of a new framework of an *Aviation Impact Study* (which can be partially modelled on the requirements for an EIS) that encompasses the effects on both the environment and social and planning impacts of utility of proposed aviation infrastructure and operations on the existing amenity.

4. The *Impact Study* should rely on accurate data of pollution and noise harms, or published modelling studies which clearly specify the assumptions and metrics used in such modelling.

5. There should be independent checking of models, data and assumptions supplied by industry stakeholders in favour of a development by independent consultants, who should produce a public report commenting on the industry produced Environmental Impact Statement.

6. Conditions put on development as a result of the above reporting and review process should be published transparently and strictly enforced by government and not improperly reviewed or relaxed at a later time – this is a form of broken commitment to the community, resulting in rapid loss of social licence.

7. Government should not invoke vague phrases like 'public good' in mandating certain developments against a community's wishes. Any development must come with conditions that provide overall community benefit and no perceived community harm outweighing these.

8. Communities must be completely and transparently informed about each stage of the proposed infrastructure development and its likely benefits and costs. An advertising budget should enable every member of the community to be fully informed and able to comment should they wish to do so. Their wishes should be followed: if the proposed stakeholder beneficiaries cannot convince the community of the overall benefit to them of the development (i.e. full access to all benefits and harms and how these were calculated and independently verified), it should not proceed.

SECTION 5: INDUSTRY OPERATIONS MANAGEMENT

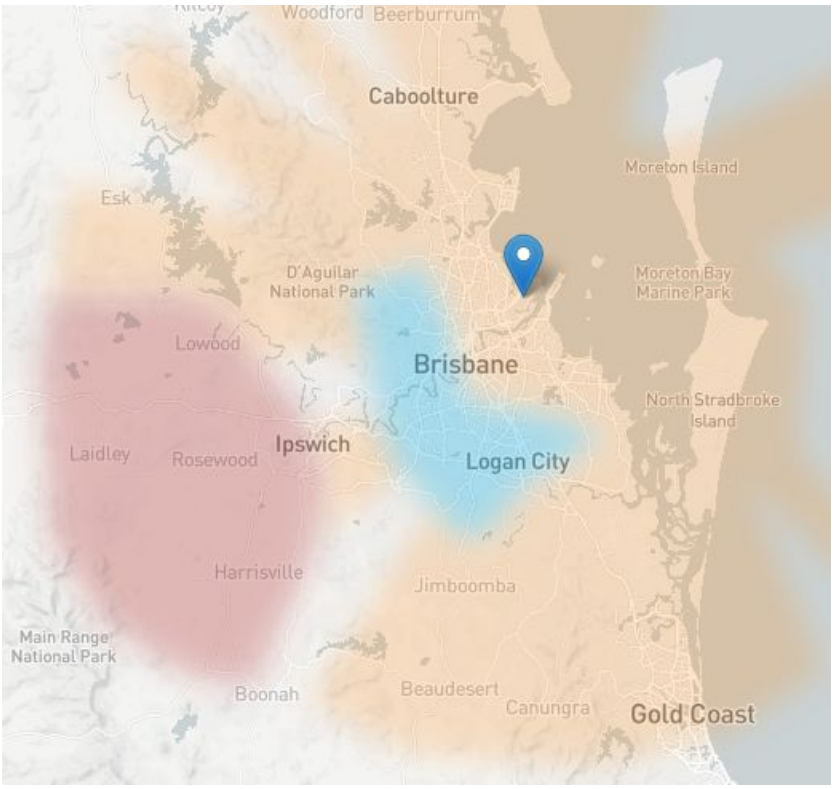
Need For A National Master Plan Of Airspace Management

Airports and other industry believe there is little integration of freight operations between airports and off-airport freight networks. Embedding outcomes and actions from the National Freight and Supply Chain Strategy and its National Action Plan and improving airfreight data may help improve coordination of freight movements on and off airports.

AirServices and the Infrastructure and Transport Department are working on various technical and other measures to improve integration. *It is impossible to have proper flight path design aimed at minimizing economic costs of efficiency AS WELL AS environmental and social costs without considering a master plan to coordinate ALL aircraft movement for all airports and for all usages.*

This deficiency in lack of an integrated airspace and flight path design performed according to principles emphasising both efficiency and the minimization of social disturbance must be urgently addressed. It will allow more flexible design of a wider choice of fuel efficient flight paths away from populated areas.

Currently each LGA is restricted in the flexibility of flight path design in its airspace by flight paths in neighbouring LGAs. For example, in Brisbane there are several airports and the respective control areas limit flight flexibility in the neighbouring area.



Operations Management Should Not Consider Noise as a Factor to Mitigate *If Possible*

Noise should be properly understood as a serious medical and social harm to residents, and noise planning should be an integral part of managing (or limiting where necessary) operations using existing infrastructure, rather than a community concern to be 'managed' where possible.

The fact that over one third of submissions received on the Terms of Reference for the Aviation White Paper concerned noise should provide ample evidence to elevate the importance of community social and health concerns at least as highly as economic concerns.

The White Paper needs to centralise noise as one of the key parts of the planning and management process for aviation growth, rather than treating it as an inconvenient nuisance to be managed, if possible. Noise abatement goals should not be subservient to other operational and economic goals.

the Australian Government notes the airport-lessee companies are responsible for developing and implementing their own noise mitigation programs within their communities along the lines of previous Government policy.

We strongly disagree with this proposal. It is not appropriate for private industry to self-regulate while it can socialize the considerable health and environmental costs on to society, under the protection of the government. Such regulation does not work and is not working.

The ANO should be independent and only required for resolving disputes where a new independent Community Engagement mechanism (noted above) does not solve problems. The ANO should have power to acquire documents and enforce compliance of regulations by airports and airlines.

Four LFAs (Sydney, Gold Coast, Adelaide and Essendon Fields) operate under a curfew imposed by the Australian Government. Sydney Airport also operates with an hourly movement cap on flights, under Commonwealth legislation. These arrangements limit passenger aircraft movements to certain hours of the day, and limit the number of planes which may take off or land at an airport in any one hour. The imposition of caps and curfews have significant economic impacts, affecting an airport's productivity and profitability, and limits the ability of airlines to recover from disruptions (for example due to adverse weather). The Australian Government is not considering imposing any additional constraints on airports such as curfews or movement caps.

Equitable Policy Is Important For Social Licence

This policy outlined above is clearly inequitable and is purely an economic and managerial style argument which completely ignores the ethics of treating some residents different from others merely on the basis of what city they live in. It allows deliberately harming residents for solely economic benefits of productivity and profitability, dressed up in cliches about some undefined 'public good'.

Operational constraints can provide a significant reduction in the impact of aircraft noise around airports immediately. This is a more proper response to

social pressure and the ethical acknowledgement of the true harms of aviation overfly, unlike in Australia where there is no effective noise regulation other than the politically imposed regulation at four LFAs mentioned above.

Air Services Redefines the Balanced Approach to Avoid Curfews

The regulatory approach to aircraft noise draws on international best practice as contained in the ICAO's *Balanced Approach to Aircraft Noise Management* (the ICAO Balanced Approach). The four elements of the balanced approach are:

- reduction of noise at the source (technology standards)
- land-use planning and management
- noise abatement operational procedures, and
- operation restrictions.[101]

The ICAO Balanced Approach is reflected in Airservices Australia's approach to aircraft noise management.

Figure 11: Aircraft noise management[102]

Notice how the fourth pillar of the Balanced Approach has been sidelined in small font, hard to read, vertical writing and annotated to read, regulators have the ability, implying that it is 'exceptional' rather than being an *standard* option (after further analysis) when the previous three have failed to provide the desired result.

Today hundreds of airports worldwide are implementing aircraft operating restrictions for noise management purposes on a case-by-case basis. These might limit capacity, but they are completely practicable and can *immediately and dramatically* improve the noise climate around airports.

Changing Operational Priorities, with Safety Remaining Key

The assumption is that the public acceptance must be forced to comply with pre decided operational policy is wrong.

The management of aircraft operations in controlled airspace is done by *AirServices* which seems to take the view that operations at an airport are scheduled by airport traffic demand using airline-preferred flight schedules, and

limited only by runway capacity, operational limitations (*ignoring noise*), and environmental factors (e.g. visibility, wind etc.), subject to the imperative of flight safety. Designing a flight path taking into account noise mitigation is considered only after all these factors are applied.

BFPCA suggests that it is instead the number of flight movements that should be limited by the ability to safely manage traffic with schedules being decided by ability to prevent noise harms as the highest priority constraint after safe operation, followed by consideration of preferred flight schedules and taking into account airport infrastructure limitations, consistent with the imperative of flight safety.

Airport profits are subservient to these aims and, if airports want to increase traffic capacity , they (with Government support if deemed desirable) should consider investing in infrastructure improvements and traffic management systems to allow the increase in traffic taking community benefits into account, rather than prioritizing their profits and those of airlines.

Action Steps

- Priority must be given to develop an integrated *National Airspace And Flight Path Plan* across all airports (private or national) for all purposes (Commercial, Private, Emergency, Defence, GA etc.). The plan should equally emphasise both efficiency and minimizing social disturbance. Such an integrated air space plan will allow more flexible design of a wider choice of fuel efficient flight paths away from populated areas.

- There should be pre-implementation reviews by independent consultants of all airspace design and changes to flight paths to sure they conform with safety, efficiency and social harm reduction

- Define and mandate acceptable noise limits and mechanisms to enforce these noise limits applying to all non-regional airports Australia. Proper mechanisms to enforce the legal obligations of airports and airlines should be defined.

- Communities in regional and remote areas will have different priorities and should be able to make different choices about these, although limits should be community decided, not mandated by Government.

- Flight paths over sensitive infrastructure e.g. hospitals, schools, aged care homes etc. should be temporarily reassigned

- Flight path design and operational management of aircraft in controlled airspace should remain with AirServices, and the community engagement function removed from them to a new regulator as noted in Section 2.

- AirServices should follow flight path design principles that have been redefined as above to constrain operations to be compatible with, *in order of priority*, with
    1. safety
    2. noise limits (location and scheduling of flights)

3. infrastructure capacity
4. airline and airport scheduling preferences

- Airlines and airports should be put on notice about acceptable noise limits from their operations, so that they can proactively implement measures to reduce need for operational restrictions by reducing noise at source, rescheduling flights and using quieter aircraft etc.

- There should be an investment in new air traffic equipment to maximize the efficiency and safety of flight control, and updated training and workloads for ATCs provided to manage air traffic to world standard. Security and resilience must be built into these systems to prevent lapses.

- Emergency and Defence flights are excepted from noise limitations of commercial and private aviation but should be instructed to reschedule flights away from night time hours where possible, and report on reasons for exceptions

- The new flight path design principles should be published and with a commitment to a timeline for implementation.

- The ICAO's Balanced Approach to Aircraft Noise Management can be followed, subject to noise from operations conforming with the above regulated limits on maximum noise from aircraft operations over populated areas.

- *Prior to full implementation of these principles, all airports should impose curfews and limit hourly flight operations to limit noise harms.* If integrated airspace design, enhanced operations management (e.g. of SODPROPS) and equipment, and infrastructure modification can remove the need for these kinds of operational restrictions, they can be removed.

- We note also that a number of alleged emergency flights are in fact routine flights by emergency services aircraft that could be rescheduled to avoid night time noise harm

Noise Limits Should Apply To Commercial, Private And GA Operations
PROPOSED NOISE LIMITS SHOULD BE:

- based on noise harm research (related to disturbance, health, well-being and social factors including children's learning, not research on levels causing hearing loss e.g. for heavy equipment operators)
- informed by the results of this research, not some unverified figure that allows unfettered operations
- be intuitive, easy to measure with standard noise monitoring equipment
- published widely
- clear with respect to specific limits at specific times, and the justifications for such limits
- monitored with proper measuring equipment on the ground not assumptive models
- take into account the normal ambient noise levels in a location
- enforced with penalties where violations occur

SECTION 6: THE ROLE OF AIRSERVICES

The current regulatory framework for aircraft operations in controlled airspace in Australia is administered by the Civil Aviation Authority (CASA) and AirServices.

AirServices is a government business whose operation depends almost wholly on fees from airlines and which designs and manages airspace and flight paths. This organisation has been also assigned responsibility for managing the community impact of aircraft operations without any regulatory powers to limit flight noise. The dual roles are a clear conflict of interest since AirServices are paid by the amount of traffic they manage for airlines and airports.

Airservices' Noise Complaints and Information Service (NCIS) is tasked with dealing with community complaints about noise, but the most recent ministerial Statement of Expectations for AirServices does not require the NCIS to be anything more than an information response and data logging service.

The Australian Government is seeking feedback on how the operation and effectiveness of the NCIS could be improved.

Some suggestions are given at the end of this section.

The NCIS is an embarrassing failure as was evident in senate estimates, or to anyone who has used the service to make a legitimate complaint. The turn around time is often over a month and the standard response is a form letter essentially saying: Thank you for your 'inquiry', but there are no regulations governing noise or flight paths. This implies that the need for operational efficiency dwarfs the citizen's concerns, which are not directly addressed. (https://bfpca.org.au/estimates/)

The ANO (Ombudsman) currently reports to the AirServices Board and as such has a conflict of interest, thereby reducing the capacity for independent investigation of complaints, particularly since AirServices has no mandate to impose any operational restrictions to mitigate noise.

The Department does not appear to adequately monitor the performance of AirServices in mitigating the impact of the aviation sector on communities, and evidence of growing community dissatisfaction is abundantly provided by local and national media coverage, questions in parliament, attempts by opposition parties to amend the AirServices Act, and recent ANO systemic investigations of multiple complaints in Hobart, the Sunshine Coast, Brisbane, and East Melbourne.

AirServices also attempts to create social licence for aircraft operations through their Community Engagement Process as they design *Noise Action Plans* for several major airports around Australia, without being even able to *suggest* operational restrictions that would actually reduce noise.

Noise mitigation measures therefore rely not on reducing it, but on ongoing projects to redesign of flight paths which mostly move noise to different areas, the so called 'noise sharing' strategy.

Noise Sharing

AirServices flight path design principles contain nothing about committing to measurably reduce residential overfly but focus instead on (a) mitigation measures "where possible" and (b) sharing a known harm more 'equably', while (c) avoiding operational restrictions.

AirServices strategy of Noise Sharing is an ethically bankrupt concept, even worse than those which drove RoboDebt. Noise sharing is nothing other than legalized harm by attempting to spread a known hazard on to more citizens without proper research into its economic, medical and social effects, in order to avoid mitigating or preventing the harm at source.

It's analogous to spreading a known toxin to more areas (so it is less noticeable?) instead of trying to remediate it and prevent further dumping… even while not knowing the threshold causing damage of the said toxin.

Apart from being an ethical failure in that sense, it is also an ethical failure in that it divides communities and reduces already fragile social cohesion by forcing different communities to participate in a 'complaints lottery' to see who has to endure the noise harm, and who can escape it.

Airservices Australia is preparing a Community Engagement Standard for flight path and airspace design changes. This work is an important step in communicating a standard process for the community. The proposed Standard:
• outlines 10 'engagement principles' that set clear expectations for the community about how the engagement will be conducted
• outlines the 'benefits of effective community engagement' which are expected outcomes, and 'drivers for flight path and airspace change' which provide reasons for why changes are needed

This document focuses on process while the outcome is stymied by assumptions about community input and mitigation of noise. There is no focus on OUTCOMES and so a lack of any improvement in noise harm as a result of the bureaucratic focus.

This standards document contains no clear metrics for how to count or use community feedback in decision making, ambiguously defines a decision making process, and omits any clear framework of how community concerns would result in change. Noise is clearly subservient to other design principles e.g. operational efficiency and the over-narrowly conceived safety (of the aircraft only). There are no clear goals of noise reduction nor any timelines for same, and the process has not earned community trust.

Airservices Australia has developed Flight Path Design Principles that seek to balance the competing objectives of operational efficiency, environmental protection and minimisation of noise impacts, while ensuring safety remains the primary factor….. "Aircraft noise is an inevitable impact of aviation activity. While airports are essential economic assets that provide communities and businesses with great benefits, residents living within 75 km of an airport may experience noise and visual impacts of aircraft arriving, departing or overflying the airport."

These statements reaffirm that the primary goal is operational efficiency and safety, and community concerns are subservient to these.

It is stated that AirServices approach to aircraft noise management *reflects* the International Civil Aviation Organization's (ICAO) Balanced Approach to Aircraft Noise Management. However, AirServices' modified approach rules out certain steps of the balanced approach if they might interfere with 'operations'.

There is acknowledgement of the harm of aircraft noise which are euphemistically called 'noise impacts'. Air Service provides free counselling to affected residents, yet ASA has done no proper research on the harms or threshold harms of the noise they are allegedly mitigating, and in many cases do not measure it properly, relying on outdated forecasts and models. Operational restrictions on airport capacity are excluded, even for night time flights which are acknowledged to be more 'sensitive'.

We have concluded that it is impossible for AirServices to fulfil its dual mandate, and it should focus entirely on traffic management. A new Community Engagement Organization for the aviation industry should be fully independent of AirServices.

We recommend community engagement should be managed by an independent, properly resourced public organization, and which has the power to make independent recommendations to Parliament, to review mandated maximum noise levels, and remediate noise concerns, based on clear noise limits (daytime 7am-7pm and night time 7pm-7am). It should also host a responsive NCIS.

Action Steps:

- The role of AirServices should be to focus on airspace and flight path design and flight management. The community engagement function should be awarded to an independent body.

- ASAs flight path design principles should be rewritten and reworked to reduce noise and eventually mostly eliminate residential overfly. This should be done in conjunction with accurate noise monitoring and noise restrictions reflecting community health standards.

- Independent consultants should be commissioned to review all proposed flight paths and changes to these (including location, time or traffic volume), no matter how minor they appear to be, and the community should have clear input into the process with metrics that define how their input will be used.

Noise Complaints Information System

Based on the experience of the thousands of members of BFPCA, the NCIS has the following features:

- It is understaffed
- Citizens are unclear what is done with complaints, or even if they are logged
- The system provides no apparent value to citizens
- It is unclear what is classified as a 'valid' complaint or how it is used to reduce noise harms
- Phone operators are poorly trained and have little knowledge of various

LGAs or technical knowledge about noise

- The email written system provides a generic form reply (which essentially says they have no control over noise) weeks later, if ever
- The WebTrak complaint system forces users to give a reason for the complaint (it's a noise complaint, why do you need to explain why it's disturbing?) and results only in an acknowledgement it was received
- Statistics of complaints about specific flights or from various suburbs are not provided

Various other information provided to 'educate' citizens about flight paths, the alleged 'need' for aircraft noise, flight path design principles etc. is presented in a fragmented manner and makes it impossible to see the actual noise disturbance in a particular location, or what the effect of proposed flight path changes might be.

ASA have also released a *Baseline Model Software* recently which has little utility being based on outdated data that is clearly inaccurate and dramatically under-reports flights and noise harms (even historically). It assumes aircraft noise travels in 750m grids.

Air services still uses 'modelled' data in preference to the wealth of real world noise data they have collected from noise monitors. There is no apparent reason to do this apart from the fact that the models dramatically under-report noise. They have never published city wide updated noise contours to reflect measured reality, in spite of this having been proposed in the 2009 White Paper.

Our contention is that AirServices was never designed for and is unfit to conduct community engagement or handle noise complaints. This should be managed by an independently funded body without interests in the aviation industry.

If noise regulations were implemented as suggested in this submission, the need for a Noise Complaints ~~Information~~ System would be dramatically reduced. Its mere existence in the current expensive and convoluted form is an acknowledgement of a serious regulatory failure.

A noise complaints system should have the following features:

- All citizens should be able to access short 2-minute videos (on a Website and also a public platform Youtube) explaining the operations of a local airport, airport commitments to reduce noise, how to register a noise complaint, and what is done with the complaint.
- The noise complaint system should not be considered as part of some 'educational' system about the 'need' for noise
- The WebTrak interface should be used to provide complaints about a specific flight related to a specific location
- WebTrak should be improved to reflect data with a minimum delay of 5 minutes
- All complaints should be logged and giving a reason for the compliant should be optional
- Each month data should be published with the complaints connected with (a) specific flights (b) specific locations

SECTION 7: GENERAL AVIATION

General aviation aerodromes are not regulated properly and have become a significant cause of community distress due to their frequent, noisy and polluting operations.

Flights from Archerfield Airport in Brisbane significantly increase residential overfly for parts of the south and south west of the city. These flights are often not included in Air Services statistics. Moreover many private operators use this airport and frequently receive clearance to fly in night hours or at low altitude.

The increasing volume of flight training being undertaken at general aviation (GA) airports in high density residential areas, such as Moorabbin (Melbourne), Jandakot (Perth), Bankstown (Sydney), Archerfield (Brisbane) and Parafield (Adelaide) is causing unprecedented levels of noise impacts on adjacent communities and is effectively unregulated.

There is no proposal to reduce the use of highly toxic lead based aviation fuel (used in General Aviation) to zero over the coming 5 years in spite of its being banned in every other industry for decades

We accept the need of flight training providers to undertake their activities. However, we point out this business imposes significant costs on the surrounding communities as the noise from flight training activity is particularly disturbing because of its highly repetitive nature over extended periods. Moreover, a significant amount of the training occurs at noise sensitive times, such as summer evenings and on weekends when residents tend to spend more time at home or outdoors.

The volume and intensity of aircraft noise from GA has been allowed to, and continues to, greatly exceed reasonable levels in existing residential areas where residential housing developments would now no longer be permitted if the guideline was applied.

The master planning processes associated with GA airports provides little meaningful input from affected communities. Airports will not implement noise mitigation or reduce aircraft movements that would impact on airport operations, so this is not a focus area of the master plans.

There is no effective regulation that the community can refer to limit aircraft movement growth as there is no measure of what is a reasonable or a fair amount of noise to experience.

The GA airport operator can pass on community concerns and complaints about noise via the requirement for federally leased airports to establish a 'Community Aviation Consultation Group' mandated under the Commonwealth Airports Act 1996.

However, the CACG has no authority to recommend or demand improvements regarding aircraft noise to AsA or the ANO. Its terms of reference are limited to information-sharing

Action Steps

- There should be an integrated air space and flight path management system for all airports, including GA airports over each region
- General aviation infrastructure development and flight path alterations should be under a national umbrella of legislation which confers the same right of consultation to their communities.

- We recommend a refreshed regulatory approach which: improves planning regulations to incorporate an effective distance-based safety and noise buffer around airports which encompasses areas overflown by training circuits and encourages consideration of options such as locating training activities over water.

- Many GA activities should be relocated to regional areas close to the feeder city where residential overfly from certain operations like flight training can be avoided

- For existing GA airports establishes national aircraft noise standards for aircraft in flight at, or abutting, airports and communities affected by flyover, so as to better regulate decisions by Commonwealth agencies and airport operators.

- There should be regulation for aircraft noise so community complaints have a standard that can be used to measure compliance.

- GA operators should be put on notice to progressively reduce the use of highly toxic lead based aviation fuel by refurbishing their fleet so as to reduce use of this fuel to zero over the coming 5 years

- Unnecessary private flights and joy ride operations over residential areas should be banned

SECTION 8: SUSTAINABILITY, SECURITY & RESILIENCE MANAGEMENT

There is an acknowledged in the Green Paper that the industry is 'hard to abate'. However, the assumptions about the environmental sustainability underlying the net-zero proposals in the Green Paper largely focus on the ability of aircraft manufacturers to develop more environmentally friendly jet engines, mitigating carbon emissions, proposed funding of development SAF 'green' fuel, along with some acknowledgement of a possible role for EVs and hydrogen power etc. These latter two seem unlikely to be widely used before 2050.

In 2018, aviation accounted for 2.4% of the global cabon footprint, and a larger proportion in Australia on a population adjusted basis.

Expansionist Policy Hits Reality

The richest one per cent of Australians emit 17 times more carbon pollution than the combined populations of Fiji, Vanuatu, Solomon Islands, Tuvalu and Kiribati.

Oxfam Australia said the top one per cent – or around 250,000 Aussies – are bigger polluters than the more than two million people who live in the five pacific nations.

They also emit more carbon pollution than all 14.7 million passenger vehicles in Australia, and have almost doubled their total emissions since 1990.

A significant amount of their environmental footprint is through frequent air travel, including private air travel.

Our politicians are among the top one per cent responsible for outsized emissions, the Oxfam report found.

This section should recognise that the footprint of aviation is larger than its carbon footprint. Most of the other components of a jet engine's exhaust are also heat-trapping e.g. water vapour in the upper atmosphere and other gases which are equally if not more deleterious to global warming. By this measure, aviation is responsible for 3.5% of human activity's total "warming impact."

Whatever gains have resulted from fuel and emissions efficiencies have been more than nullified by the growth in air traffic. And as other industries are set to decarbonize more effectively than aviation, by 2050 the aviation industry will probably be creating an even higher percentage of global warming impact.

In a race to decarbonize ALL energy consumption, throwing huge quantities of renewable energy into an industry as wasteful as aviation is possibly counterproductive and the use of these resources in other areas might be more effective.

The government's proposals for using SAF have a potential to generate fewer greenhouse gases, but the biofuels used to provide them must be costed for carbon along the entire growth, transport and refining chain, not just while they are burned in jet engines. SAF does however have the advantage of being easily utilized in conventional jet engines.

An alternative strategy than *government sponsored* SAF (unless these fuels are mandated and the industry rather taxpayers fork out for them) is put a price on emissions. It is questionable that this nation can be more than a grower of SAF biomass, given the lack of its ability to refine other products.

Part of the problem with sustainability is that government subsidies and tax exemptions make flying artificially cheap. The majority of flight tickets are purchased by a small percentage of frequent flyers, who in Australia tend to be wealthy corporate flyers (who could often stay at the office and use Zoom but prefer to travel because the ticket is relatively cheap).

Aviation fuel in Australia is taxed at 0.03c per litre compared with fuel for other uses which is taxed at about 48c per litre. This is an example of an indirect subsidy to a highly polluting industry.

It is primarily the rich who are benefited by taxpayer subsidized cheap ticket prices. If the government were serious about carbon emissions, they would propose and at least do a cost-benefit study on a frequent flyer levy for those making more than say 4-6 flights per year. This would not harm the normal family travelling for their annual holiday by air or to occasionally visit a relative in another location, but would enable monies to be raised for other green initiatives from the people causing the most pollution, and perhaps reduce unnecessary flights.

Carbon offsetting is merely an accounting stratagem to move pollution from one place to another rather than a meaningful reduction in footprint.

Also largely ignored in the aviation 'sustainability' accounting are the associated infrastructure and land use costs of the industry, and the environmental effects of the considerable ground support network which are equally part of the environmental harms.

Sustainability should also include social sustainability. As well as laudably focusing on impact on the physical environment, the social aspects of sustainable development must be urgently included. The current trajectory of increasing residential overfly, albeit with quieter planes, is not sustainable.

As more research on the harms of aviation noise and pollution from residential overfly become available, and more people are affected, this issue will be increasingly publicly highlighted.

If $130m can be budgeted for investigation into PFAS remediation, the much larger and equally urgent harm of aircraft noise should warrant a research and remediation budget of billions.

The goal of the government and industry should not merely be to manage community expectations about noise, but to ethically aim to reduce residential overfly to zero. This might seem impossible and idealistic but it is not. It would however require the will to act for the benefit of the community and an investment and concrete goals to rebuild runway infrastructure to allow directing flights away from residences, improved operational procedures including radar and flight path management in all weather conditions, proper ATC training etc.

Action Steps

- We recommend re-examining the scope of sustainability to include non carbon factors in reducing the environmental impact of aviation, including integration of transport options e.g. travel to airport /destination etc. to minimize overall emissions

- We recommend attempting to reduce the use of air travel by reducing the number of very frequent flyers (who fly weekly or more), developing various scenarios and fully costing these to prepare for a range of environmentally friendly solutions

- We recommend a reconsideration of trying to develop a stand-alone SAF industry in Australia and instead propose outcomes based management of emissions, including measures such carbon pricing, imposing a levy on frequent flyers and reducing industry funding of schemes which provide private aviation operators increased operational benefit

- We recommend independent monitoring of industry's claims about their carbon footprint and environmental friendliness to create appropriate sustainability without virtue signalling and green-washing schemes

SECTION 9: BRIEF NOTES ON OTHER TOPICS

EMERGING TECHNOLOGIES & DRONES

Planning is underway for the implementation of new services for drones and other emerging aviation technologies. As these services become available, new sources of revenue and charging models will need to be implemented to recover the costs of these services and the cost of establishing the supporting infrastructure. The initial costs of developing the physical and digital infrastructure to support these services is likely to be significant, and will need to support infrastructure for surveillance, safety assessments and safety promotion.

Drones are going to create an equally noticeable intrusion of personal privacy and living environment than existing low level residential overfly.

The issue of safety and regulation of drones to minimize social nuisance and harm, personal and infrastructure risks and privacy concerns should not be a separate one to the existing fixed wing commercial aircraft based aviation model, which should also look at citizen safety from a broader perspective.

Managing the introduction of drones and AAM and promoting further growth of this sector will require a greater level of intergovernmental coordination on aviation matters than has previously been the case. The Australian Government is seeking views on the regulatory roles stakeholders see as critical for the Australian Government to lead to enable advantages of new technologies while managing risks and how priorities of government agencies will evolve as uptake of emerging aviation technologies continues.

This should provide impetus for the previously recommended rewriting of the *Environmental Impact Regulations for Aviation* which is previously discussed in Section 2. The current requirement for an EIS is improperly based on a document designed for a different use.

Work commissioned by the Department highlights the potential for crewed AAM to have entered service by 2030 and for public acceptance and use of the technology to grow rapidly through the 2030s (although the trajectory of the sector is difficult to predict). ...Careful consideration and planning will need to be implemented to ensure that social license is maintained for emerging technologies and to limit negative impacts on communities on the ground.

Before the governments opts for spending taxpayer dollars on developing attractive sounding emerging technologies, a full cost benefit study must be commissioned as to the likely social and economic benefit against the cost and risks.

The industry and government assumption that these emerging technologies must be government promoted before they become truly safe and commercially viable without taxpayer support is wrong. It is imporant to be realistic about developing an industry so that the government is not presiding over a technology development that turns out to be not cost effective enough for industry to use it. Increasing profitability in a competitive marketplace requires constant innovation which companies will do automatically in order to resources more efficiently.

The industry will tend to naturally select technologies which are commercially viable, if limits are placed on unconstrained experimentation by outcomes based regulation with the community interest at the forefront (section 2).

The supporting infrastructure should be developed along these lines rather than active promotion of (effectively subsidizing) industry take-up of emerging technologies.

New aviation technologies will use airspace in very different ways to conventional aviation, especially in urban areas. There will be implications for both noise and privacy and need for airspace regulation to consider these in a manner that has not been needed in the regulation of traditional aircraft. If advanced technologies are to attain community acceptance, building social license will be essential.

The Australian Government will continue to encourage industry to engage with the broader community in order to limit negative impacts, help the community appreciate the benefits of new aviation technologies, and to build community support.

It is important to build support for future support by showing community responsibility in current operations, rather than trying to salvage an unworkable and unsustainable framework in the future, or impose a harmful political decision on unwilling populations.

AI BENEFITS AND RISKS

- The benefits and risks of AI would be better planned with surveys and the use of scenarios. It will however reduce the workforce in aviation, change the skills of the workforce required, and increase the risks of malfunction which are not traceable.

- Use of AI entails much more careful consideration of possible outcomes and the unanticipated second order effects of various algorithms. AI poisoning can occur due to deliberate or inadvertent altering of training data, which can be countered by implementing rigorous data curation and governance policies.

CYBERSECURITY

The recent cyber attack on ports and system failures at Optus illustrate the vulnerability of the aviation industry to errors. In both cases, despite the different reasons for the failures, the respective companies did not apply security protocols to their IT systems that would have addressed vulnerabilities.

- The benefits and risks of reliance on computer and network infrastructure would be better planned with surveys and the use of scenarios and better regulation of the methods companies use to protect their systems and data from negligence or attack. Australia has been typically reactive instead of proactive in response to technological advancements, leading to well-publicised string of failures that would be catastrophic in aviation.

CODA

The White Paper policy design team must remove temptations for making only minor changes that do not address some of our suggested deficiencies to the Green Paper framework.

Government aviation policy should not merely support the profit-goals of an 'essential' industry's growth using 'business as usual' settings, proposing only minor modifications to existing policy settings that were largely developed in 2009, and hoping for the best.

Australia deserves better than to allow large private operators to dictate the terms of their participation in an essential national business, but also a very lucrative one for them. It's time for Aviation Policy to put the community first.

Aviation must develop so as to ensure it is:

- Community benefit driven (widely conceived)
- Resilient to the inevitable shocks
- Able to maintain safe operations for all stakeholders
- Efficient
- Sustainable, including for environmental footprint
- Economical (in a wider sense)

White Paper Policy Design should proceed along a trajectory of

- Understanding the mileau (social, political, technical, environmental, political, geopolitical, economic etc.)
- Optimizing community benefit
- Examining policy assumptions and deciding policy goals (*efficiency* and *safety* are enablers not goals in themselves)
- Integration with other transport options
- Using scenarios in preference to linear forecasts to develop policy options
- Performing full and inclusive cost benefit optimizations
- Designing data collection and check data
- Planning infrastructure requirements well in advance
- Designing and monitoring operational outcomes
- Developing guidance (regulation) and adjustment mechanisms
- Seeking continued community guidance

SELECT REFERENCES (apart from DOTIRD and ASA BAC sites)

Essential background reading for authors of the White Paper *include the following*

https://bfpca.org.au/library/

https://bfpca.org.au/mythbusters/

https://bfpca.org.au/flightpaths/

Noise harms

For noise harms BFPCA has collected some relevant research at the bottom of this page

https://bfpca.org.au/library/#research

Other information

Aviation Noise Impacts White Paper
State of the Science 2019: Aviation Noise Impacts
a summary of the scientific literature review undertaken by researchers and internationally-recognised experts.
https://www.researchgate.net/publication/336412697_Aviation_Noise_Impacts_White_Paper

Marco Pretto, Pietro Giannattasio, Michele De Gennaro,
Mixed analysis-synthesis approach for estimating airport noise from civil air traffic,
Transportation Research Part D, Volume 106, 2022,103248, ISSN 1361-9209,
https://www.sciencedirect.com/science/article/abs/pii/S1361920922000785

www.scu.edu /ethics/ethics-resources/ethical-decision-making/calculating-consequences-the-utilitarian-approach/

Acta Acustica 2022, 6, 3 Ó C. Lavandier et al., Published by EDP Sciences, 2022
https://doi.org/10.1051/aacus/2021057
Available online at: https://acta-acustica.edpsciences.org
Influence of road traffic noise peaks on reading task performance and disturbance in a laboratory context

www.brisbanetimes.com.au /national/queensland/federal-body-did-not-accurately-study-airport-s-new-flights-report-20211012-p58zad.html

www.brusselstimes.com /440243/no-sleep-and-bad-heart-brussels-airport-causes-e1-billion-in-health-damage-per-year

Aircraft noise and cardiovascular morbidity and mortality near Heathrow Airport: A case-crossover study (Environment International 177 (2023) 108016)

Aircraft noise annoyance and the influence of number of aircraft movements
Truls GJESTLAND 1 ; Femke B GELDERBLOM 2 ; Internoise Conference Hong Kong 2017

The role of sound emergence for aircraft noise annoyance
Dirk Schreckenberg 1 Christin Belke 2 ZEUS GmbH
Internoise Conference Glasgow 2022

International Journal of Environmental Research and Public Health
A Systematic Review of the Basis for WHO's New Recommendation for Limiting Aircraft Noise Annoyance, Truls Gjestland
Published: 2 December 2018

https://kellehers.com.au/latest-news/regulatory-capture-scandals-and-regulators/

Frontiers in Public Health 02 December 2022 10.3389/fpubh.2022.1058423
Cardiovascular consequences of aircraft noise exposure
Justyna Bączalska 1 , Wiktoria Wojciechowska 1 , Marta Rojek 1 ,
Omar Hahad 2 , Andreas Daiber 2 , Thomas Münzel 2 and
Marek Rajzer 1 *

New Economics Foundation
Losing Altitude The Economics Of Air Transport In Great Britain Dr Alex Chapman
https://neweconomics.org/uploads/files/NEF_Losing-altitude.pdf

Aviation Noise Impacts: State of the Science
www.ncbi.nlm.nih.gov /pmc/articles/PMC5437751/