23 January 2010

Committee Secretary
Senate Standing Committee on Rural and Regional Affairs and Transport
PO Box 6100
Parliament House
Canberra ACT 2600
By email: rrat.sen@aph.gov.au

"***Inquiry into the effectiveness of Airservices Australia's management of aircraft noise***"

Dear Committee,

I'm starting to write this before 7am because aircraft noise woke me again this morning.
I am amazed at the increase in aircraft movement and noise over the past few years and concerned about the increase in disturbance it is causing me and my family.

We write in reference to Perth Airport, because we are directly under the flight path for one of the runway flight paths. We believe we speak for hundreds, possibly thousands of people you will never hear from because they are unaware of the Senate Inquiry and such processes.

In desperation, we submit the following key points for your most serious consideration:

1. Lack of Path Management

   Perth Airport and aircraft operators are not managing aircraft noise responsibly or adequately.

2. Technical Issues

   Noise is a subjective issue, which is unrealistically reduced to numerical values.
   Airservices Australia must be required to report on:
   - **real measures of noise effect,**
   - **performance criteria for noise impacts, and**
   - **the effectiveness of various noise management strategies.**

3. Externality Costs, Pricing and Compensation

   Impacts occurring to the general public which are onerous, inequitable and uncompensated.
   Market pricing of noise should be included in AirServices charges and the funds recouped should be passed on to those who suffer noise.

4. Lack of Regulation

   There is insufficient regulation of aircraft noise.

5. Practical Solutions

   There are reasonable solutions in the short term.
   If impacts cannot be better managed a curfew should be introduced, as in other airports with lesser impacts.

In the face of detrimental effects on communities, it is the responsibility of governments to protect its citizens. This is not occurring with respect to aircraft noise around Perth Airport.

We submit that substantial changes to management of aircraft noise are essential for Perth Airport.

Sincerely,

BPHughes *DHughes*

B.P. and D.A. Hughes

Introduction

We purchased our current residence in 1992 in an area which was reasonably aircraft quiet. Flights numbers weren't unduly large, the heaviest flight path was about a kilometre north, and movements weren't concentrated in one location. I purchased an investment property in 2005 under similar circumstances. I purchased both properties, aware of the available planning and information.

You will be aware there has been an enormous increase in jet service activity for Perth Airport, as shown in the following table.

Period	All arrivals and departures	Night arrivals and departures
4th quarter **2006**	15117	2082
3rd quarter **2009** (latest available)	21185	3368
Increase	**40%**	**61%**

Not only is aircraft frequency and therefore noise increasing, even greater increases are occurring during times of greatest impact.

These increases are far in excess of what was forecast, planned or advised.

Perth is a hot climate and open windows at all hours are a necessity. We have evaporative air conditioning, as it uses much less energy than reverse cycle, and also causes lower greenhouse gas emissions. However, it requires windows to be open, allowing noise in. This was never a significant problem until the aircraft number increased and path management deteriorated.

We have never received any correspondence from AirServices Australia or Perth Airport, which rely on any affected residents taking the initiative and making the effort to describe and solve their problems. They rely on general broadcast communications which are ineffectual.

Managers of air routes will say things like "*The number of flights over a particular area will depend on the wind direction.*"[1] or "*Weather and seasonal factors play a large role in runway selection and arrival and departure patterns in Perth.*[2]". These are euphemisms for ***put up with it, because we're not going to do anything about it***.

AirServices Australia rightly says its prime responsibility is air safety. However **its practice demonstrates that it ignores other significant issues**, such as health of the community.

[1] Westralia Airports, Sunday Times 24 January 2010

[2] Airservices Australia, Western Australia Route Review Project (WARRP), www.airservicesaustralia.com/projectsservices/projects/waroutereview/communityinfo.asp

1. Lack of Path Management

Perth Airport and aircraft operators are not managing aircraft noise responsibly or adequately.

I checked the flight paths over my house for this morning, by Perth Airport Webtrack[3]. There were 13 flights between 5:00 and 7:00am which flew directly over my house. This represents about 95% of the flights on this path. (This almost indicates precision flying, being able to pick one spot across such an area, but you'll understand that I don't appreciate the accuracy.) The previous night there were 3 flights between 00:20 and 00:40am.

If these flights keep me awake, we get less than 5 hours sleep a night. Sleep experts agree that 8 hours is required by a typical person for adequate sleep every night. Therefore these flights are depriving me and my family of healthy rest. This puts all of the impacts onto certain members of the community, which is inequitable. There are numerous ways to reduce impacts of flight paths, but clearly they are not being used.

The problem is that ***neither Perth Airport, AirServices Australia, nor the aircraft operators have any interest or incentive to manage flight paths responsibly***.

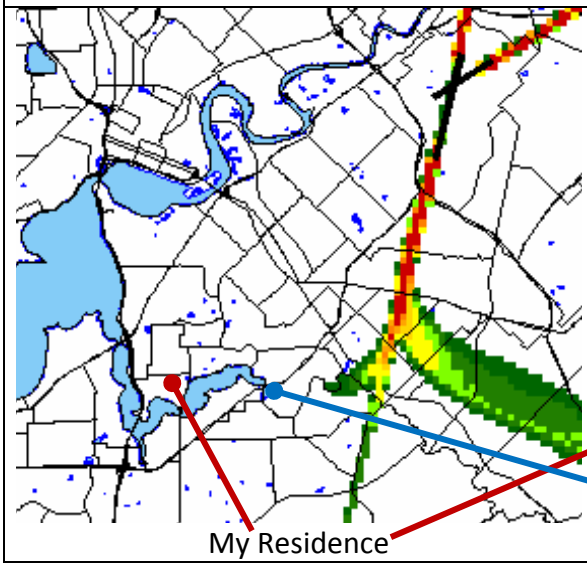
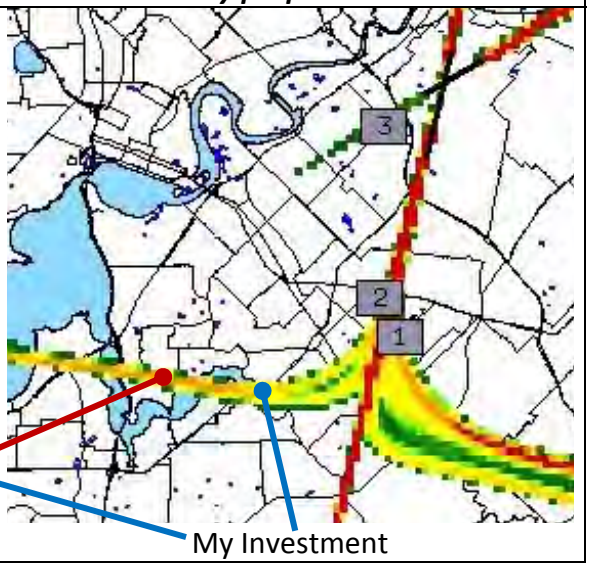
Noise can be managed in numerous ways. In terms of path management, noise should be minimised by

- spreading the area over which aircraft fly,
- eliminating aircraft movement from sensitive times, and
- raising the height of flight paths.

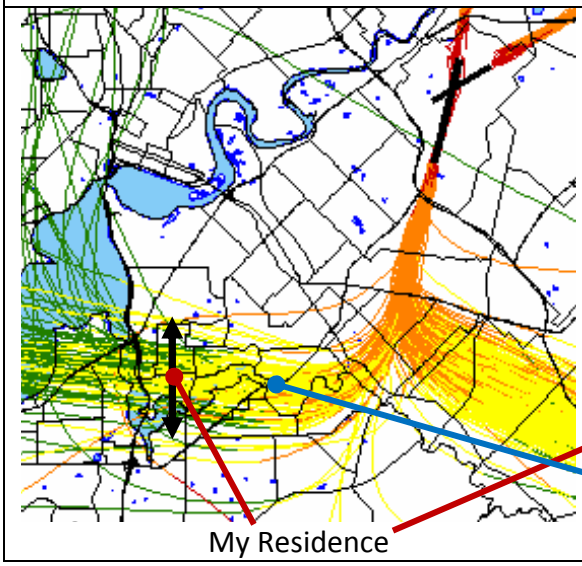
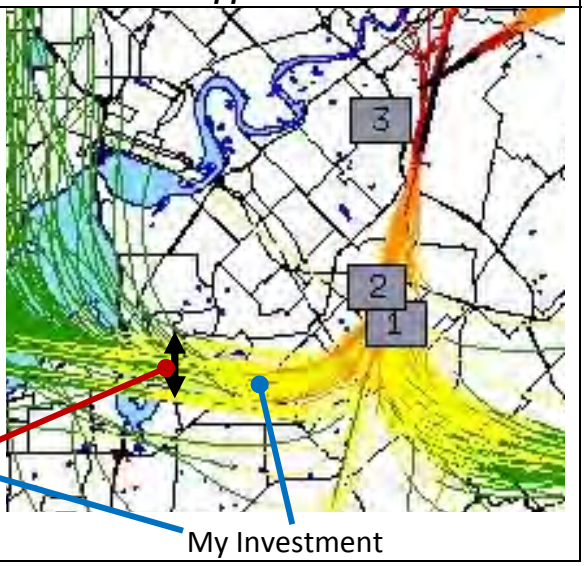
The following illustrations demonstrate the inability to manage paths to reduce the noise levels to the lowest reasonably possible level.

[3] I apologise that this is not a statistically robust technical analysis. Unfortunately it is very time consuming to collect this information, by manually checking each path from the website. Despite this, the information illustrates the points. Complete information would be available via AirServices Australia. However it is not publicly available and AirServices Australia does not report on it. The data is for all flights on 22/1/10, 0:00 - 02:00 and 05:00 - 07:00.

Increases in flight density

Perth Track Density Plot for jet operations only, fourth quarter 2002. ***Note lack of impact over my properties.***	Track density plot for jet operations only during the third quarter 2009. ***Note substantially increased impact over my properties.***
	

Reduction in path width, increasing impact

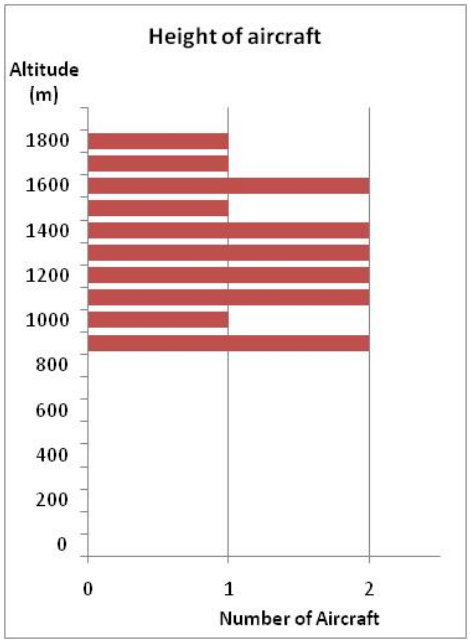
Track plots coloured by height for jet departures during December 2003. ***Note spread of track location - approx 3.8km.***	Track plots coloured by height for jet departures during September 2009. ***Note greater numbers and narrower spread of track location - approx 2.3km.***
	

This illustrates that the track paths as a whole have been narrowed, increasing the density, the concentration and the impact on a narrower area and fewer people.

Aircraft Height

The following chart shows aircraft height over my house[4]. There are two points to note:

- the enormous spread of heights, and
- the heights are too low for this distance from the airport.



Note that while different aircraft have different operating performance characteristics, the same aircraft fly at different heights (e.g. Airbus A333 were noted at 930m and 1500m).

This chart illustrates that path height is not being managed since aircraft are allowed to fly at any level, not a specified minimum. To reduce impacts, the aircraft should be as high as possible, which is clearly not a management strategy.

[4] Footnote 1 applies to this data.

2. Technical Issues

Noise is a subjective issue, which is unrealistically reduced to numerical values.

AirServices Australia must be required to report on:

- ***real measures of noise effect,***
- ***performance criteria for noise impacts, and***
- ***the effectiveness of various noise management strategies.***

Noise is a very subjective issue. As such it is easy to measure, but extremely difficult to correlate with human perception and effect. This is evidenced by the arguments between technical professions involved over all the different aspects (weighting of the human ear, tonal differences, time of day, peak levels versus average, the number of occurrences, and relativity to background level).

I can tell you that road, rail and aircraft noise are all measured, analysed, assessed, interpreted and regulated differently. Personally I believe that aircraft noise imposes the greatest effect proportional to the operations, and is the lowest regulated. However I do not have the capacity to examine the issue in detail personally. Therefore ***I ask you to arrange for an independent assessment of this issue as part of your inquiry***.

Some technical people, in this case, as well as Perth Airport and the operators will tell you that noise impacts at Perth Airport are low and reasonable. Let me tell you clearly that just one aircraft is sufficient to interrupt sleep, so the repeated number which pass over my house are more than adequate to keep me awake.

Environmental agencies have been imposing noise restrictions on roads and railways, to varying degrees. Some of these can be particularly severe, and much harsher than those imposed on airports. In particular, they take greater account of the disturbance cause by single noise events (one event on a quiet night causes more disturbance than continuous noise), and tonal effects (different frequencies disturb more than others).

Any numerical representation of noise impacts cannot describe the subjective impacts of noise. ***The ANEF assessment is inadequate to describe impacts and should not be relied on for noise management.***

There is a considerable amount of good information on the AirServices website. However, much of it relates to *data*, not *information*. The paths, flight numbers, etc do not describe the effect on people. Furthermore, there is no information about the effect of various management strategies, so there is no accountability for performance.

Performance criteria should be set for operations around Perth Airport. We do it for many other aspects of transport operations, government administration and operations, so why not for aircraft operations?

3. Externality Costs, Pricing and Compensation

Impacts occurring to the general public which are onerous, inequitable and uncompensated.

Market pricing of noise should be included in AirServices charges and the funds recouped should be passed on to those who suffer noise.

Externality Costs

Aircraft noise imposes 'externality' costs on those who suffer its consequences. However the problems that arise are:

- those who impose the costs (aircraft operators) or can manage them (airports) don't pay for them,
- those who suffer loss aren't compensated, and
- there is no incentive for those who impose costs, or can manage them to reduce the impacts

In the absence of market mechanisms it is the responsibility of governments to protect citizens. However the reality is that the regulator (which is the Commonwealth government in this case) has neither the competency, nor the capacity to regulate properly.

The mining industry claims that their charter flights are essential and impossible to change due to rostering. This is abject nonsense and must be summarily dismissed as a reasonable position. They're just trying to minimize their costs at the expense of anyone else who they don't care about.

Market Pricing

Free market economics relies on prices representing costs which are passed to purchasers. Externalities result when this does not occur and inefficient markets result. The cost of externalities should passed on as compensation to those who suffer them.

I am sure that AirServices Australia does not price the externality costs of noise, especially at sensitive hour (night time). It certainly does not compensate suffers for the impacts they are subjected to.

If aircraft were charged for their true costs they would have an incentive to change their behavior and air services would be more economically efficient, taking all things into account. ***As it is, they're just stealing my quality of life.***

Compensation

Economists argue that noise is compensated by lower house prices for people buying in noise affected areas. I agree with them, but then the converse must be true. That is, my house price is reduced and I should be compensated for the lowered value, given the increase in impact which has resulted. Obviously, this is not occurring.

4. Lack of Regulation

<u>There is insufficient regulation of aircraft noise.</u>

In the absence of proper path management, it is the responsibility of governments to protect the community from unreasonable impacts. This can occur in a variety of ways, including incentives, regulation and market mechanisms.

These are the responsibility of the Commonwealth, whether it is AirServices Australia, the Department of the Environment, Water, Heritage and the Arts, the Department of Infrastructure Regional Development and Local Government, or someone else. I haven't checked who is responsible, because I don't care. I just know that whichever agency is responsible has failed.

There are many reasons why this failure has occurred, lack of capacity, lack of competency (skills, knowledge and experience), government direction, or 'regulatory capture'. Again, I don't care why, I just know that the Government has failed to protect its citizens.

I suggest you ask these Departments to advise answers to the following questions:
Have they done an independent investigation of any of the following aspects of Perth Airport's current operations and future plans including:

- *General environmental impact assessment,*
- *Health assessment,*
- *Land use impact assessment, and*
- *Economic assessment of the impacts of aircraft noise*

If they have these

- they should be made available publicly on websites, and
- they should be made available to you for scrutiny.

If the agencies don't have these, ***they have demonstrated failure to adequately oversight aircraft noise***.

In urban areas, we have noise abatement regulation which controls even rubbish trucks and building sites. But there seems no control over aircraft. It is apparent that the Commonwealth is unwilling or unable to protect its citizens. It seems the airline industry is more powerful than the Commonwealth government.

5. Practical Solutions

<u>There are reasonable solutions in the short term.</u>

There are a range of aircraft management solutions which should be employed at Perth Airport:

- Flight paths should be time shifted to allow 9 hours minimum clear time.
  A series of separated flight paths should be used, separated by about 1.5km.
  That is, different paths should be used for an evening and the following morning.
  Nine hours may seem long compared with other curfews, but people cannot be expected to fix their sleep times to suit aircraft, especially when they don't know when the flights will occur.
- Old noisy planes should be banned from landing or departing between 10pm and 7am.
- Freight planes should be banned from landing or departing between 10pm and 7am.
- A wider spread of flight paths should be employed.

These changes will be unpalatable to aircraft operators and airports because it may increase the number of noise complaints. However this is a narrow minded view, because it will decrease the number of serious complaints, which are representative of the ones which affect people most and are likely to results in the most pressure on airports.

AirServices Australia and operators are likely to say these arrangements are too difficult. The sophistication of the aircraft industry, high tech avionics and the professionalism of pilots demonstrate that these options are practicable and reasonable.

I note that "*A night-time curfew at Sydney Airport restricts flights between 11pm and 6am. Adelaide, Essendon and Coolangatta (Gold Coast) airports also have night-time curfews.*"[5].

I suggest you ***ask AirServices Australia to describe why Perth Airport has no similar curfew, despite greater population and aircraft numbers***.

<u>If AirServices Australia, Perth Airport and operators cannot manage impacts better a curfew should on the basis of equity and level of aircraft impact.</u>

[5] DITRDLG '*Airport Curfews — General Information*'.

Conclusions

In the face of detrimental effects on communities, it is the responsibility of governments to protect its citizens. This is not occurring with respect to aircraft noise around Perth Airport.

We submit that:

1. Lack of Path Management
    - **Perth Airport and aircraft operators are not managing aircraft noise responsibly or adequately.**
2. Technical Issues
    - **Noise is a subjective issue, which is unrealistically reduced to numerical values.**
    - **Airservices Australia must be required to report on:**
        - **real measures of noise effect,**
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    - **Impacts occurring to the general public which are onerous, inequitable and uncompensated.**
    - **Market pricing of noise should be included in AirServices charges and the funds recouped should be passed on to those who suffer noise.**
4. Lack of Regulation
    - **There is insufficient regulation of aircraft noise.**
5. Practical Solutions
    - **There are reasonable solutions in the short term.**
    - **If impacts cannot be better managed a curfew should be introduced, as in other airports with lesser impacts.**

Therefore, substantial changes to management and regulation of aircraft noise are essential for Perth Airport.