



AIRSERVICES AUSTRALIA

Corporate & International Affairs

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Mr Peter Bourne

Dear Mr Bourne

Thank you for your letter dated 14 July 2009 to the Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Anthony Albanese MP, about changes to flight paths at Perth. The Minister has forwarded your letter to Airservices Australia for response.

I note your comments and submit the following.

#### Why change was needed

The Western Australia Route Review Project (WARRP) was undertaken for safety purposes and fully involved the Civil Aviation Safety Authority (CASA). It was identified that change to the air route structure was required to maintain and enhance safety, reduce complexity and cope with the rapid and predicted continued increase in air traffic. Specific areas to be addressed included providing separate flight paths for jets and non-jets, as these types of aircraft have very different operating capabilities and removing 'nose-to nose' operations (where departing and arriving aircraft fly directly towards each other on the same flight path at different altitudes) as much as possible.

#### Airspace design

I must emphasise that airspace design is a highly complex matter which is made more difficult at Perth due to the large amount of airspace under military control, and therefore unavailable or severely restricted for civilian operations, and the sustained high level of growth of the airport. In the design of the current structure, I can assure you we thoroughly examined all options for air routes including your suggestions.

Arrival and departure procedures take into account a wide range of factors, including international best practice with regard to safety, improvements in technology and the operational requirements of aircraft, airlines and the airport. Noise impacts to the community also play a significant role in where flight paths are located and associated operating procedures, and aircraft are tracked over water and non-residential land as much as practicable. For the reasons noted above, however, these options are limited at Perth.

#### Perth Hills area

The flight path over the Perth Hills area is a key component of a major structural change to route all northern arrivals intending to land (from the south) on Runways 03 and 06 to the

COPY  
PASTE

PEOPLE GO THERE FOR PEACE & QUIET!!

eastern side of the airport. This route makes maximum use of national park and farmland areas where previously more than half of these aircraft had approached the airport from the western side of the city over densely populated residential suburbs. I note that aircraft were flying over your area beforehand, but less frequently.

of 03 NORTH

An old flight path for northern arrivals on the eastern side of the airport was required to be deleted to accommodate aircraft departing Runways 21 and 23 (to the south) heading to destinations to the east of Perth. Locating the new arrival track closer to the airport also allows these departures to gain altitude more quickly and reduce their noise impact to residents, particularly in the Bickley area.

CHIDLOW

**Airservices' consultation**

The consultation model employed during the WARRP project is one our organisation uses nationally for airspace reviews. In Perth this involved the Perth Airport Noise Management Consultative Committee, comprised of various community representatives, including Federal and State MPs, local councils, community organisations and the Western Australia Government, over an approximate 18 month period prior to the changes being made. Airservices regularly updated this group of community stakeholders on progress of the review (including detailed information on new arrival and departure routes and potential noise implications) so they in turn could inform their respective constituencies.

TECHNO BABLE

Additional information about WARRP is available at our website at the following link:

<http://www.airservicesaustralia.com/projectsservices/projects/waroutereview/default.asp>

We are closely monitoring the new route structure for Perth from both operational and community impact perspectives.

Thank you again for your enquiry.

Yours sincerely

Richard Dudley  
General Manager  
Corporate & International Affairs

12 August 2009

RURAL & REGIONAL AFFAIRS & TRANSPORT REFERENCES COMMITTEE - SENATE INQUIRY.  
 rename & put in name & address etc.  
 Airservices Australia "Environmental Principles & Procedures for Minimising the Impact of Aircraft Noise - Part C"

Using the above, a 1 Hour sample was taken on Jan 6th 2010 of Arrival Flights using a new Flight Path heading South down the Darling Scarp East of Perth WA to establish if a Full Noise Impact Assessment was required before the new Flight Path was implemented.

FLIGHT	AIRCRAFT	TIME	AIRCRAFT HEIGHT ABOVE GROUND LEVEL (FEET AGL)			
			GLEN FORREST	PAULLS VALLEY	BICKLEY	PICKERING BROOK
YGGE - PER	DH8A *	8.36am	5710 ft	4395 ft	3720 ft	3159 ft
YANG - PER	F100	8.47am	7826 ft	6255 ft	4927 ft	4238 ft
YPRO - PER	B710	8.55am	4851 ft	4152 ft	3739 ft	3260 ft
YBRY - PER	F100	8.57am	6327 ft	4815 ft	4005 ft	3228 ft
DRW - PER	B738	9.12am	6137 ft	4454 ft	4034 ft	3775 ft
YANG - PER	F100	9.16am	6419 ft	4802 ft	3926 ft	3254 ft
YNWN - PER	B712	9.27am	5169 ft	3923 ft	3690 ft	3267 ft

\* DH8A is a Turbo Prop, all others are jets over 34,000kg.

Above Sea Level:- Glen Forrest - 820ft, Pauls Valley - 885ft, Bickley - 885ft, Pickering Brook - 985ft. These Communities are Rural Residential

When the wind is from the Northern sector the number of arrival operations exceeds the numbers shown in Table 1 & Table 4, especially as there is no curfew & operations between 19.00 & 07.00 count as 4 operations each. The number of operations will also increase in the future.

Using Figure 1 - Flow Chart for Noise Assessment for New or Modified Jet Aircraft Tracks.

Example 1

Q1 Is track over residential area?	Yes
Q2 Is track less than 5000ft AGL?	No
Q3 Is number of operations > than minimum in Table 1?	Yes
Q4 Is Jet track over newly exposed area. Table 2?	Yes
Q5 Will noise level of aircraft exceed 40dBA (Leq24) for Rural Residential areas, or 45dBA (Leq24) for Urban Residential areas. Table 4?	Yes

Conclusion - Full Assessment Required.

Example 2

Q1 Is track over residential area?	Yes
Q2 Is track less than 5000ft AGL?	Yes

Conclusion - Full Assessment Required.

See "Environmental Principles & Procedures for Minimising the Impact of Aircraft Noise - Part B A/3 (Jet aircraft flying below 5000ft AGL)"  
 "Procedures are to be designed with due consideration for the preferences of the affected communities".  
 If these assessments were done were they reported to PANMCC, naming all areas affected, so residents could be informed? If not why not?  
 (Assessments requested at PANMCC meeting 04/10/06. Never received)



**PERTH AIRPORT NOISE MANAGEMENT STRATEGY COMMITTEE**  
**DRAFT MINUTES OF MEETING – WEDNESDAY 4 OCTOBER 2006**

**PRESENT**

Chairman

Petersen, Torben Perth Airport

Members or Member's Representative

Atkinson, Geoff Perth Airport  
Bennett, Gavan Airservices Australia  
Burrows, Sue Shire of Kalamunda  
Coke, Michael DEC  
Collins, John City of South Perth  
Cuccaro, Tony Shire of Mundaring  
Dale, Lance Airservices Australia  
Dalle Donne, Joe City of Canning  
Kennedy, Michael DPI  
Leclezio, Raymond The Guildford Association  
Lipple, Phil Canning Community Rep

Scott, Sam Member for Pearce  
Sellick, Andrew Qantas Airways  
Tan, Steven City of Swan

Observers

Devenish, Stuart City of Canning  
DiLollo, Arnica Perth Airport  
Miller, Iain Airservices Australia

The meeting opened at 10:05 am.

**1. APOLOGIES**

Apologies were received from:

Gates, Richard Perth Airport  
Gaynor, Drew DPI  
Lekias, Michael City of Canning  
Moylan, Judi Member for Pearce

Wells, Ross City of Gosnells  
White, David Virgin Blue  
Wilkie, Kim Member for Swan

Prior to Agenda Item 2, Mr Petersen presented an overview of the current situation of the WAC business which included:-

- General aviation and domestic traffic is growing.
- International traffic is well below forecasts.
- Qantas are adding B747 flights to the east.
- Looking at moving Qantas from domestic to international. Should have an understanding of the implications and issues early next year.
- Car parking space is still an issue. Do we move to multi-story parking. Will depend on the Qantas move.
- BAA has been taken over by Ferrovial, a Spanish building group. Ferrovial may sell their Australian interests which includes shares in Perth Airport.
- WAC board members are changing to include more WA based people.
- WAC will have a new CEO early next year.

**Action  
Required**





Action Required

- WAC's organization structure is currently being revamped.
- WAC is in a strong financial position and is undertaking refinancing to fund the expected capital infrastructure programs.

2. MINUTES OF PREVIOUS MEETING – 28 JUNE 2006

- 2.1 The minutes were accepted as a true and correct record of the meeting.

3. MATTERS ARISING FROM THE MINUTES

- 3.1 All matters arising were agenda items. (see below)

4. CORRESPONDENCE

- 4.1 There were no comments regarding correspondence

5. PRESENTATION – AIRSERVICES AUSTRALIA – WA ROUTE REVIEW

- 5.1 Presented by Lance Dale with assistance from Iain Miller and Gavan Bennett. Refer to information posted at [www.airservicesaustralia.com/waroutereview/default.asp](http://www.airservicesaustralia.com/waroutereview/default.asp)

- 5.2 Responding to a question by Mr Collins, Mr Dale and Mr Miller explained the aircraft distribution to the 03 approach track over the swan river and the tracks further south.

- 5.3 Mr Bennett explained that Airservices have a process of environmental assessment for proposed changes to flight tracks. Every effort is made to locate a proposed track to an environmentally insignificant location. If significant, Airservices refer the proposal to the Department of Environment and Heritage for assessment. The DEH decide what level of environmental assessment is required prior to making a decision.

- 5.4 Environmental assessment includes noise levels, population numbers effected and engine emissions.

- 5.5 Mr Devenish requested that the environmental assessment reports be made available to committee members, in time to make comment, prior to track changes being adopted.

- 5.6 Although not normally public documents, Airservices may release them to committee members if the committee formally request them. WAC will write to Airservices.

Mr Petersen

6. FUTURE ROLE OF NOISE MANAGEMENT STRATEGY COMMITTEE

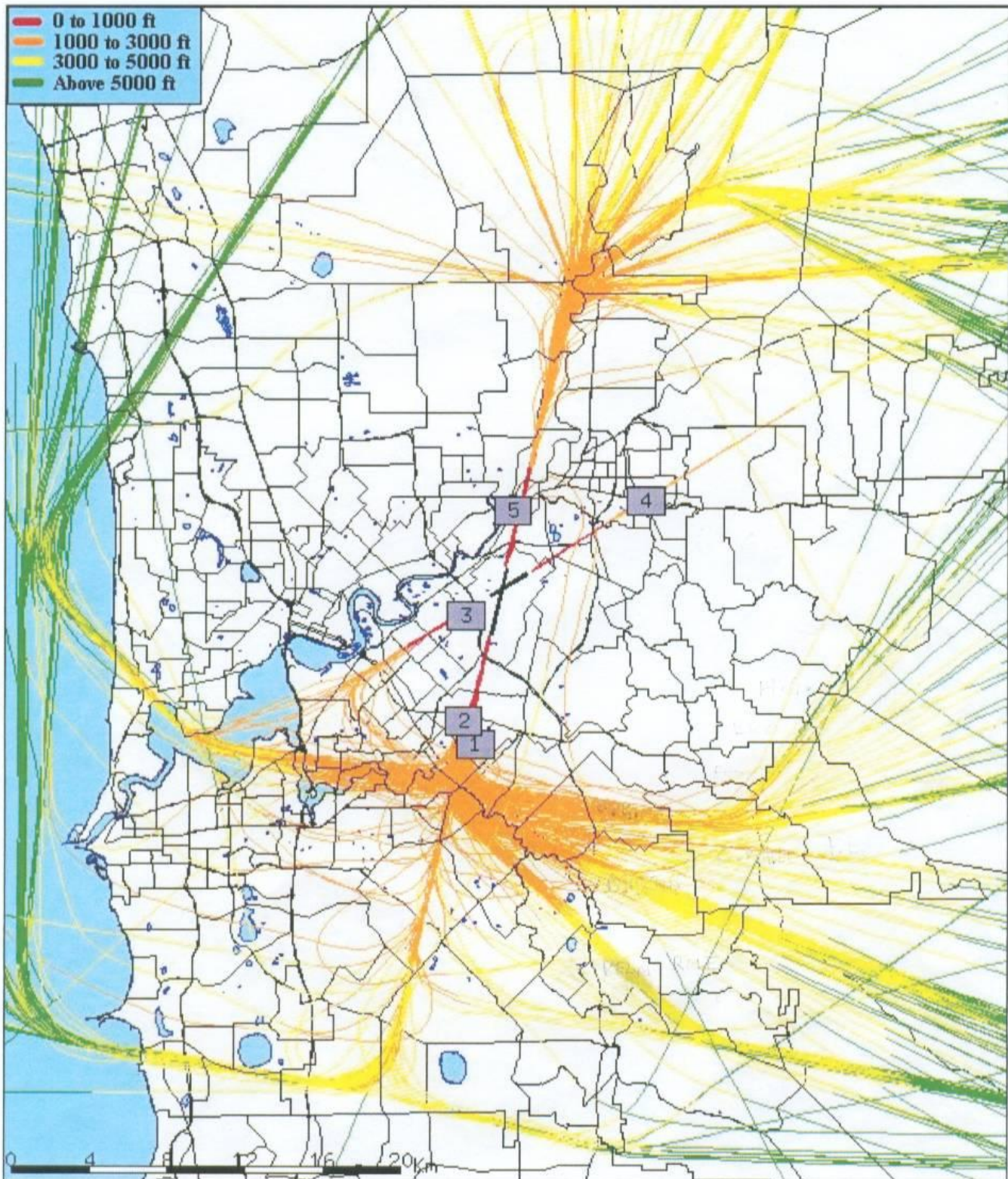
- 6.1 The draft Terms of Reference and the new name of Aircraft Noise Management Consultative Committee were accepted by the committee.

- 6.2 The working group will now develop strategies and action plans.

Mr Petersen

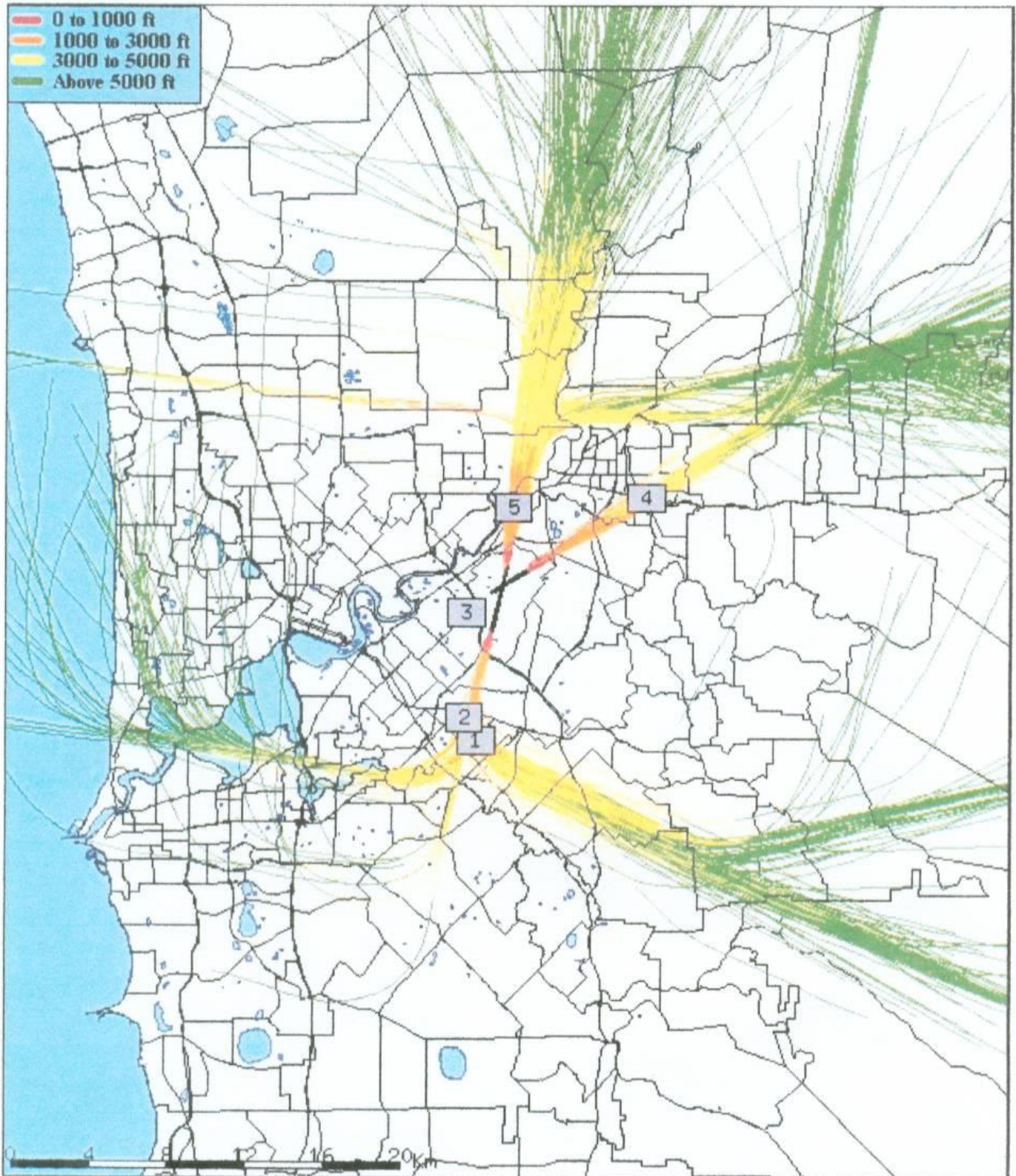
7. POPULATION ANALYSIS, APPROACHES FROM THE WEST TO RUNWAY 03

- 7.1 This issue of various tracks and numbers of people effected (refer to minutes dated 27 October 2004 for details) has been superseded by the current WA Route Review. Item 5 above.



**Figure 5:** Track plots coloured by height for jet arrivals during the period 2/06/2008 to 8/06/2008.

PMB Doc # 5



**Figure 6:** Track plots coloured by height for jet departures during the period 2/06/2008 to 8/06/2008.

PMB Doc # 6

# Environmental implications guidelines

These guidelines will assist you to complete the [Environmental Implications Form](#) (Form 080). The information is provided as a guide only and is by no means exhaustive. Further information on environmental issues is available from the [Department of the Environment, Water, Heritage and the Arts](#) or by [contacting the OAR](#).

## 1. Aircraft noise

Is the proposed change likely to change the level of aircraft noise exposure at ground level, or the pattern of noise exposure, particularly over built-up areas?

If yes, will this change be caused by a change in aircraft type, the number of aircraft, aircraft configuration, operating heights, flight tracks or other factors? (State which.)

Describe the nature of the change(s). Quantify the change(s) and provide maps where relevant.

### **Considerations**

The level of sound is an important indicator of environmental quality. Noise has been defined as unwanted sound in the environment. It is important to note that 'noise' is considered a significant environmental effect in the EPBC Act Policy Statement 1.2 – [Significant Impact Guidelines](#).

Locations distant from an operating aircraft are exposed to a level of sound that is a function of the level of sound emitted by the aircraft, the distance of the receiving location from the aircraft, the characteristics of the sound, ambient atmospheric conditions and any physical barriers between the source of the sound and the receiver.

### **Aircraft Noise**

The principal sources of noise from an aircraft are engine noise, propeller noise, rotor noise in the case of helicopters, airframe noise and burner noise from balloons.

Aircraft operations that could cause a noise disturbance are arrivals, departures, changed flight tracks, frequent low-level operations over residential areas, unusual operations, prolonged hovering by helicopters, repeated operations such as training flights, low level operations over national parks, nature reserves and passive recreation areas and the activities of defence aircraft.

The noise generated by a jet or propeller-driven aircraft operating at normal cruising levels (usually about 35,000 ft for a commercial jet airliner), does not normally cause concern at the closest point on the ground to the aircraft as the distance between the aircraft and the receiver is normally sufficient for the noise of the aircraft to be low or even non-existent when it reaches the receiving site. The main exceptions would be helicopters and balloons, which normally fly at relatively low altitudes, and those types of military aircraft that are inherently noisy. Aircraft flying at speeds greater than Mach 1 (the speed of sound) would cause an unacceptable disturbance or impact because of the characteristics of the sonic boom.

### **Hot Air Balloons**

Hot air balloons, although usually associated with quiet mornings, are actually inherently noisy. In fact, one study states that 'the hot air balloon burner generates a level of noise between that of a freight train (88 decibels) and a circular saw (107 decibels).' Remember, a 70 decibel sound level will sound twice as loud as a 60 decibel sound level.

### **Low Level Flying**

Aircraft flying at levels below their normal cruising altitudes may cause levels of noise exposure greater than generally acceptable limits. They may also cause impacts within communities regardless of whether acceptable levels are exceeded or not because of either an awareness of a change having occurred or the heightened sensitivities of some people.

### **Noise Impacts on Wildlife**

Any proposal for airspace change that may cause a 'noise' effect on wildlife must be further examined in order to determine the likelihood of long-term effects which may be detrimental to the survival of the wildlife.

### **Noise in the National Parks System and Heritage Listed Areas**

Noise within the National Parks system often interferes with the very reason visitors go to the National Park – for peace and quiet. Aircraft noise tends to interfere with the 'natural quiet' that visitors seek within a National Park. Another consideration for aircraft overflying National Parks is the reduction in enjoyment and appreciation of cultural and historical resources within the Parks and the perceived reduction of the sounds of nature.

Any airspace change proposal which may interfere with the natural quiet of a National Park and/or

PMB Doc # 7a



Dear Mr Bourne

As far as I can determine there was no specific map which identified the changes.

Regards

Viv

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**From:** Bourne P & P  
**Sent:** Thursday, 17 September 2009 1:59 PM  
**To:** SY\_CCR  
**Subject:** RE: Map(s) of Proposed New flight Paths. Aircraft noise

Dear Viv,

Thanks for your prompt reply. When we spoke about the map(s) you said that you were told there was no map as such.

When you say that such a map was not available, do you mean that a map does exist but cannot be released or that no map as such ever existed?

Regards,  
Peter Bourne.

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**From:** SY\_CCR [mailto:community.relations@AirservicesAustralia.com]  
**Sent:** Wednesday, 16 September 2009 12:42 PM  
**To:**  
**Subject:** Map(s) of Propossed New flight Paths. Aircraft noise

Dear Mr Bourne

This complaint has been recorded as No 223760. I provided the number for your report on the 7th during our phone conversation today.

Some time ago you asked me for a copy of the map(s) showing the new route structures which were used in the community consultative process. I was subsequently advised that such a map was not available.

Regards

Viv

1800 802 584

Noise Enquiry Unit  
Safety & Environment  
Airservices Australia

PMB Doc # 2

Heritage listed area must be further investigated in order to determine any long-term effects which may reduce the visitor's enjoyment.

**Conclusion**

Any change to the pattern or level of aircraft noise at ground level always has the potential to attract community criticism, media interest and political comment. Thus, any changes pose a potential environmental business risk.

**2. Vibration**

Is the proposed change likely to vary the level or pattern of aircraft-induced vibration at a sensitive receiver site or over a residential area?

If yes, describe the nature of the change(s). Quantify the change(s) and provide maps where relevant.

**Considerations**

Harmonic vibrations can be caused in buildings and in items within buildings by the low-frequency component of aircraft noise. Vibrations caused by aircraft noise can create vibrations in archaeological resources, structures and museum objects. Although rarely harmful or destructive, some people and animals are sensitive to vibrations caused by aircraft and find them a cause of concern.

For the purpose of vibration and its effects on structures, the noise from aircraft has been divided into three distinct types; sonic booms, fixed-wing noise and helicopter noise.

Supersonic aircraft flight and overflights by very large aircraft or helicopters can produce vibration levels that may cause structural vibrations.

Any proposal for airspace change that may lead to a change in the pattern or intensity of vibrations in areas under a flight path (especially sensitive areas such as archaeological sites, historical sites and cultural sites) must be further investigated in order to avoid long-term damage.

**3. Privacy**

Will the proposed change allow low-level operations in the vicinity of residential facilities, recreational areas or other sensitive sites that might be perceived as invading the privacy of people in those areas?

If yes, describe the nature of the change(s). Quantify the change(s) and provide maps where relevant.

**Considerations**

Helicopter, balloon and powered parachute operations and, to a lesser extent, light aircraft and ultra-light operations, have significant potential to invade the privacy of individuals, groups and communities by allowing the occupants of the aircraft to observe properties and activities at close range and from positions of visual advantage. Numerous instances of the perceived invasion of privacy by aircraft have been cited in correspondence to aviation administrators and must therefore be considered in assessing any ACP.

Any ACP that would allow a low-level flying operation in the vicinity of residential facilities, recreational areas and other sensitive sites, especially by aircraft that can operate at low speeds, must be further investigated in order to avoid privacy issues.

An exception to privacy issues would be the operation of fixed-wing aircraft on standard approach and departure paths to registered airports and aerodromes.

**4. Interactions with birds and animals**

Is the proposed change likely to result in interactions (including exposure to noise and vibration) with bird or animal species in their natural states?

If yes, describe the nature of the interactions (i.e. low flying operations).

**Considerations**

Interactions with birds and animals may be direct, as is the case with bird strike, or indirect, through the effect of noise, vibration or presence of an aircraft.

Impacts on bird populations may occur, for example, when aircraft operations interfere with their habitats, breeding cycles, migratory patterns or feeding patterns. These impacts are most likely to occur in the vicinity of an active airport or where low-level operations disturb nesting or roosting

PMB Doc # 7b



B PMB Doc # 8

**Figure 1** Flow Chart for Noise Impact Assessment for New or Modified Jet Aircraft Tracks

