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Senate Standing Committee on Rural and Regional Affairs and Transport
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Australia

Submission to an Inquiry into the effectiveness of Airservices Australia's management of aircraft noise.

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INTRODUCTION

I thank the Senate for the chance to submit to this committee my concerns and observations relating to the effectiveness of Airservices Australia's Management of Aircraft Noise. I wish to make this submission from the perspective of my observations of the processes that were undertaken as part of a change to aircraft routes at Perth Airport in 2006-2008.

Please note that throughout this submission when I refer to aircraft and aircraft noise I am referring to medium and large passenger and freight Jets and Turboprops, those that tend to have a greater environmental impact on the communities below them especially when flying below 10,000 ft. I have not included general aviation aircraft in my discussion.

I am available to discuss any detail of this submission with the committee at their request.

SUMMARY

In relation to it's airside operations, ASA receives the majority of it's funding from the airline industry, sets routes, conducts environmental impact assessments (encompassing aircraft emissions including noise), manages Air Traffic Control functions at various major airports, receives and hands on noise complaints, passes 60% of profits back to government and according to the recent Aviation Whitepaper press release is soon to be managing complaints about noise complaints via an internal Aircraft Noise Complaints Ombudsman's Office.
Following the recent West Australian Route Review Project changes in Western Australia, this corporation has effectively handed out increased operational efficiency and supposedly better safety to the airline industry, actions that are well within it's remit whilst treating the concerns and complaints of the residents with apparent indifference. This is a situation that would not be tolerated in any other government-regulated industry. Reform of the appropriate Federal legislations are required urgently to separate ASA's co-opted regulatory powers (insofar as setting routes and handling complaints etc.) from their commercial interests. Even to the point of transferring those powers to another more appropriate government department.

I believe I have demonstrated within this submission instances where Airservices' public consultation model has been shown to be inadequate during the implementation of the WARRP and that the resulting route structure has placed an unfair environmental burden on many Perth residents.

I respectfully request that the committee consider recommending to parliament that a full safety and environmental review be conducted on the post-WARRP impact on Perth residents and that findings of that review be made public and be acted upon to more fairly share the noise burden on affected residents.

I also request that the committee consider recommending a further review across the whole range of relevant legislation with a view to implementing a Unified National Noise Management and Environmental Impact Assessment system that includes a meaningful and open public consultation process.

TERMS OF REFERENCE ITEM (a)
- has conducted an effective, open and informed public consultation strategy with communities affected by aircraft noise;

From the point of view of many residents in the Perth Hills communities, the nationally employed consultation model used by ASA related to the WARRP air route changes was inadequate in it's scope and ineffective in it's results. Consultation and advice to the public only happened to any degree after the implementation of the WARRP changes and the subsequent public outcry and political pressure.

On the face of the minutes of Perth Airport Noise Management Consultative Committee meetings prior to Nov 2008 that are publicly available and conversations with 2 representatives, the members of the committee were not given appropriate information before the changes were introduced to enable them to brief the communities that would be affected and were of the belief that the changes would have little effect within the Perth area.

The ASA press release [Ref 1] announcing the changes was released on Fri Nov 21 2008 however information for aircrews regarding the new flight routes was issued in the ASA AIP publication DAP West Amendment 117 Departure and Approach Procedures effective on 21 Nov 2008. (Old route charts are withdrawn on the day of the new release and for safety reasons can no longer be used and must be disposed of.) The pilots were already flying these routes a day before Airservices Australia Chief Executive, Greg Russell announced them.

According to ASA website statements, detailed maps showing the new routes were made available on the ASA website though no indication is given as to when this was done. The only maps found after an extensive search are based on satellite photographs and line sketches [Ref 2].

Figure 1: Example of satellite image route map 2009.

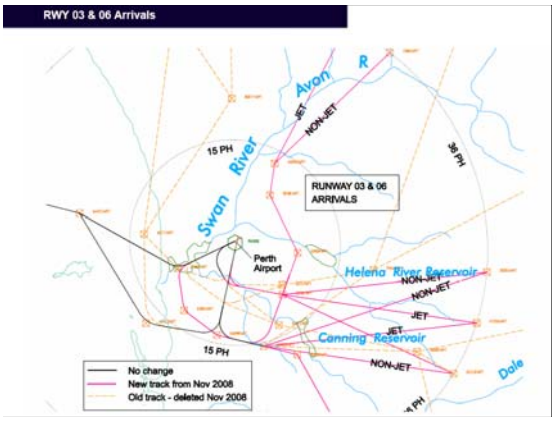

Figure 2: Example of line sketch route map - undated.

These maps are printed at a small scale (although larger than shown here) and are not easy to read, contain only five suburb references and are peppered with meaningless route and waypoint names that only an aviation professional would understand.
Satellite images used in the maps are marked copyright 2009 Cnes Spot Image/Digital Globe, a reasonable inference would be this portion of the maps was produced after Nov 2008. The remaining line sketches are undated. This type of map is obviously not adequate for informing the public and would just serve to confuse. It begs the question - if maps were provided to members of the PANMCC, were they of a similar nature and did they inform or confuse?

After more than 12 months of public and political pressure ASA has now agreed to a public meeting with Shire of Mundaring residents in early Feb this year. The meeting has been advertised by the shire in conjunction with ASA in the public notices section of local community papers and is billed as an Information Session. Representatives from ASA will be available to answer questions.

Such a public meeting could well have been conducted prior to Nov 2008. The DAP WEST route charts mentioned previously were complied from information held by AIS (ASAs Aeronautical Information Service) at 14 Jul 2008. At that time ASA held finalised route information sufficient to fully and openly brief the public and PANMCC. It seems they did not fully appreciate the need to do so.

TERMS OF REFERENCE ITEM (b)
- engages with industry and business stakeholders in an open, informed and reasonable way;

No submission on this point.

TERMS OF REFERENCE ITEM (c)
- has adequate triggers for public consultation under legislation and whether procedures used by Airservices Australia are compliant with these requirements;

I believe the triggers as they exist within the Airservices Act are not sufficient to fully engage the public in a meaningful debate.

TERMS OF REFERENCE ITEM (d)
- is accountable, as a government-owned corporation, for the conduct of its noise management strategy;

The manager of Govt. Business in the Senate, Senator Ludwig confirmed that Air Services does not have a noise management strategy during Senate debates on 25 Nov 2009 when replying to Senator Backs motion to establish this Inquiry.

"The primacy of safety is established in Airservices legislation and has always been the key expectation held by members of the public when they fly. Subject to safety being the most important consideration, Airservices has a second legal obligation to protect the environment from the impact of aviation as far as is practicable. This responsibility is undertaken in conjunction with requirements above the legislation such as the Environment Protection and Biodiversity Conservation Act 1999. <u>However, there is no requirement for Airservices to have or implement a formalised national noise management strategy as the motion assumes nor does any such strategy exist.</u>"

He goes on to say:
"Traditionally and consistent with legislation and ministerial requirements, Airservices provides a national noise complaints service and works through established airport community forums to provide information on aircraft noise issues at a local level."

ASA does have an Aircraft Noise Complaints service in line with the Minister's Statement of Expectations that works in conjunction with the Major Airports and community forums such as the PANMCC. However when viewed from a complainants perspective this is disjointed and offers little real satisfaction to the end user – the public.

For example, if we were to follow an aircraft noise complaint we would see the following events occur (or similar)

- A resident contacts local shire/airport to complain about aircraft noise.
- The resident is told that Airservices is responsible for the routes inside the airport Control Area and should be the next point of contact.
- The resident lodges a phone or email complaint/enquiry with the Airservices Noise Enquiry unit where he/she provides their details and receives a sympathetic hearing. The complaint is not logged as a complaint unless specifically requested, but the resident is not aware of this requirement so doesn't ask.
- If logged as a complaint the event will be tabulated at the end of the month along with others, but no information identifying the particular aircraft or airline will be included although the complainant will be assigned an identifying number.
- Periodically, the Noise Complaints report will be passed on to the airport.
- The airport administration will collate the report and present it to the community forum. No action will be taken to question the actions of the airline responsible because that information is not included.
- The members of the community forum will examine the report and see that there are complaints from their shire.
- The resident wonders what happened to their complaint.
- The airline doesn't learn of the complaint.
- Air Traffic Control is not told they are causing a noise problem by vectoring aircraft over that area
- The Shire may hear that people are complaining if it becomes an issue.

TERMS OF REFERENCE ITEM (e)
- has pursued and established equitable noise-sharing arrangements in meeting its responsibilities to provide air traffic services and to protect the environment from the effects associated with aircraft for which it is responsible;

My research indicates that areas West of Perth Airport receive as little as 20-35% of aircraft over-flights whilst areas to the East receive 65-85% of the traffic.

Hardly a fair distribution of traffic and resultant noise.

By way of explanation, I ask the Committee to consider the following Perth Airport aircraft movement data for Dec 2008 to Nov 2009 from the Bureau of Infrastructure, Transport and Regional Economics [BITRE] [Ref 3]

Perth Airport Scheduled Aircraft Movements Dec 2008 – Nov 2009		
Industry Sector	**Aircraft Movements**	**Percentage of Total**
International	15,700	19.7%
Domestic	50,469	63.5%
Regional	13,240	16.7%
Total	79,409	100%

These figures include only scheduled Regular Public Transport (RPT) services and do not include general aviation.

Assume Perth is divided into two areas West and East by a line running North-South along the centre-line of the main 03/21 runway.

After the Nov 2008 route re-distribution the West area experiences mostly International traffic 20% and a portion of Regional. Since I do not have access to a full traffic analysis, I have assumed the West share could rise to 35% to account for a portion of domestic/regional traffic.

The East area receives the large majority of the Domestic Traffic and a large percentage of the Regional – a share of 65-80% of the total.

From a point of view of overflights per resident the imbalance evident would be magnified because of the lower population densities in many suburbs to the East with a larger share of the flights and the higher population in the West area where there are more people, but less flights.
i.e. East – Less People, more flights.
West – More people, less flights.

I would also guess that with less people to make a complaint in the East areas, and less flights in the West, total noise complaints for the Perth area as a whole would trend downward and help re-enforce the perception that WARRP was a job well done.

To see that the re-distribution of routes did occur, we only have to read ASA's Western Australia Route Review Project (WARRP) Information for the community web page [Ref 4] ASA made the following statements post Nov 2008.

"Heavily populated areas to the west of the airport have less exposure to aircraft noise than previously."

"Closer to Perth airport, aircraft arriving from the north and intending to land on Runways 03 and 06 (also to the north) now follow a new route to the east of the airport before turning to land. There were aircraft flying in this area before, but less frequently. These aircraft are now flying more precise routes due to improvements in navigation technology and performance."

"The changes introduced in Perth in November 2008 have moved a proportion of arriving aircraft from over more densely populated areas to the west of the airport to less populated areas to the east. In this situation, Airservices has made maximum use of airspace over national park and farmland within the constraints outlined above."

Plainly traffic has been shifted to the East of the airport over the less populated Hills areas in Nov 2008. Especially the Runways 03 and 06 from the North and East which is the route that causes major concerns for residents of the Hills suburbs such as Hovea, Glen Forrest, Paulls Valley, Bickley, Roleystone and Armadale on the edge of the Darling Ranges. Refer to Item (g) for further explanation of this route and the variations in aircraft height.

TERMS OF REFERENCE ITEM (f)

- requires a binding Community Consultation Charter to assist it in consulting fully and openly with communities affected by aircraft noise; and

The current consultation process is in need of wider reform than just providing a Community Consultation Charter for Airservices Australia.

Such reform would need to involve legislative changes across all agencies and departments involved. ASA, CASA, the airports, Local Government, EPBC Act, and even examination of the way in the ANEF/ANEI are applied in assessing noise affected areas around airports.

TERMS OF REFERENCE ITEM (g)

- any other related matter.

Personal impact of recent changes to aircraft routes associated with Perth airport

I am a resident of Perth, Western Australia who has in past 10 months experienced a sudden increase in aircraft noise over my residence in the suburb of Glen Forrest in the Shire of Mundaring since early in 2009 and I have since spent considerable time and effort to understand why these changes were made and whether they were warranted or fair.

We received no direct or indirect advance notice of these changes and had no reason to go seeking such information. I read the local newspaper the Hills Gazette regularly and the statewide West Australian newspaper from time to time. Up until March 2009 none of those sources revealed any information, which indicated that, my home was about to be subjected to what I feel is unwarranted and unfair aircraft noise.
My family and I have lived in this location for the last 25 years and enjoy the peace and quiet that rural landscape living offers. Glen Forrest is a small community in the Darling Ranges approximately 14kms East-North-East from Perth Airport, an area referred to as the Perth Hills. The area is elevated above sea level by approximately 250 metres (820 feet). Surrounding areas are at an average elevation of 300m (984 feet). Noise levels in the area are generally lower than city suburbs in keeping with the low population density and large areas of natural vegetation.

Over the past 25 years we have had infrequent overflights of light aircraft and the occasional Jet or Turbo aircraft. It was a special event to see a Jet flying over at the heights they now regularly fly. We were aware of jet routes operating to the North of us but mostly they were too far away to cause any annoyance. No major aircraft arrival or departure routes were above us. The closest were 2.5 nautical miles (4.6kms) away to the North.

But things changed in Nov 2008 and due to the prevailing weather patterns it did not come to our notice until March 2009.

At that time we became aware of aircraft flying to the South-East almost directly over our house sometimes only 3 minutes apart for long periods commencing early in the morning and going on into the night. These new routes were not active at all times so there were days when there were no aircraft. Some of the early morning flights have awoken me from sleep. I am not suggesting that the walls of our house rattle, but the sound is quite audible inside especially when windows or doors are open for a cooling breeze. This continuous noise assault on some days spoils outdoor activities.

In order to find out what was happening I initially contacted Perth Airport, a reasonable assumption since the aircraft were operating from there and I was informed by them that the changes were made under the control of Airservices Australia, a Federal Government Corporation and I should direct my enquiries to that organisation. At that time, I was not informed that the local shire also had an input into the noise and route management process via the Perth Airport Noise Management Consultative Committee.

After much searching I managed to locate on the ASA website an Information for Residents Fact Sheet [Ref 5] stating that the changes were introduced as part of the Western Australian Route Review Project (**WARRP**) commenced in 2006 and implemented in Nov 2008. It goes on to say that *"A 2002 audit of airspace use in WA by Australia's aviation safety regulator, the Civil Aviation Safety Authority, found changes would be needed over time to maintain safety, reduce complexity, and to effectively manage the increased demand for air travel, other aviation services and military flying."*

I have also placed a number of complaints and enquiries for information via phone and email to the Airservices' Noise Enquiry Unit.

I have written and emailed my local Federal Member for Pearce, The Perth Airports Corporation and the Mundaring Shire Council and raised a motion at the Shire Annual Elector's Meeting

Locally, many concerned residents have formed an alliance to inform people and represent our case to the relevant government departments. We know this will be a long haul and are fully prepared to do what it takes to get a fairer outcome for the affected Perth Hills suburbs.

The noise from this route above my property in this low ambient noise area is particularly disturbing because as the aircraft approaches head on the tone of the noise is a high pitch compressor fan whistle lowering in pitch as it approaches. (Rather like the sound of a falling bomb as heard in a WWII war movie.) I have experienced mild feelings of anxiety and a flight-or-fight response on hearing this sudden noise. As the aircraft passes overhead the pitch changes to a roar from the turbines and then a booming exhaust shriek as the aircraft recedes over the trees.
During the busiest times, one aircraft has barely passed out of hearing range when another appears.
Changes to the departure routes to the North of us have also resulted in increased noise, a loud booming that echoes across the Darlington valley and is most noticeable early in the quiet mornings.

Aircraft tracking on published post WARRP Routes and height variations.

As is the case with other routes to the East of Glen Forrest, often the aircraft are perceived to be lower than ASA's Webtrack shows or what is expected for that route.
At Figs 4 and 5 below, I have presented a typical profile of the 3 x Jet and 1 x Non-Jet routes that fly

South-East directly over my property. The diagrams were constructed using actual height data noted on Webtrack, with reference to the AIP DAP-West route charts and survey maps to establish distances from touchdown. Notes were taken for four separate overflights on the dates noted and the actual descent profile was reconstructed. (One of these flights passed over on Christmas morning just as we were sitting down to an outdoors breakfast. There were more to follow.)

There are 3 points of significance to be noted in the diagrams.

1) The illustrated descents are shallower than the ideal 3-degree descent profile, which all commercial pilots would seek to fly. By flying shallower, the aircraft will have to apply more power to maintain altitude thus using more fuel and creating greater emissions and noise at the lower altitude.
2) The Hills terrain is elevated above sea level by 250-300m and when compared to areas to the West of the Darling Range is that much closer to the noise.
3) The Jet aircraft flying these routes are often below the 5000ft AGL minimum acceptable altitude for avoidance of significant noise impact on residential populations by Jet aircraft as recommended in the ASA document **Environmental Principles And Procedures For Minimising The Impact Of Aircraft Noise.** [Ref 6]

A question often asked by members of our Hills communities affected by the new WARRP routes is " Why are these planes so low? "

In the time I have spent examining the route structure within the Perth Control Area I have come to the following conclusions:

The outer departure and arrival route waypoints around Perth Airport form an interlocking grid of switch-points designed to automatically direct the aircraft to any of the four runway directions – 03, 21, 06, and 24. This grid network is probably intended to minimise transit times and remove traffic conflicts by limiting pilot choices. However it also appears to force some routes to be flown lower and longer than ideal to lock-in with the switch-points.

The first ring of switch-points on the edge of the Control Area consists of waypoints JULIM, CONNI, RAVON, AMANA, GRENE, BEVLY, DAYLR, SOLUS, MANDU and RIGGA, The next ring closer in consists of WOORA, SPUDO, ROLOB, BOOKA, KYEMA, HARMN, HAYCO, RIGGA and ORCHY.

Aircraft in the Control Area are more tightly packed due to changes in navigation tolerance minima.

An integral part of the WARRP project was the requirement to reduce the horizontal separation between aircraft flying on the same routes into Perth.

Quote [Ref 7] *"The amended tolerance enables the project to create a new route structure that provides a more efficient use of airspace."*

Effectively aircraft would be closer together on the same route nose to tail when they arrive at the boundary of the Perth Control Area. This reduced separation may follow through into the control area, but the Perth Air Traffic Controller would then responsible for maintaining safe separation.

The reduced horizontal tolerance means for us on the ground that aircraft can be flying just 3 minutes behind each other rather than the 7 minutes possible prior to WARRP. On many occasions, we are experiencing noise events that follow each other from horizon to horizon spaced 3 minutes apart with no break.

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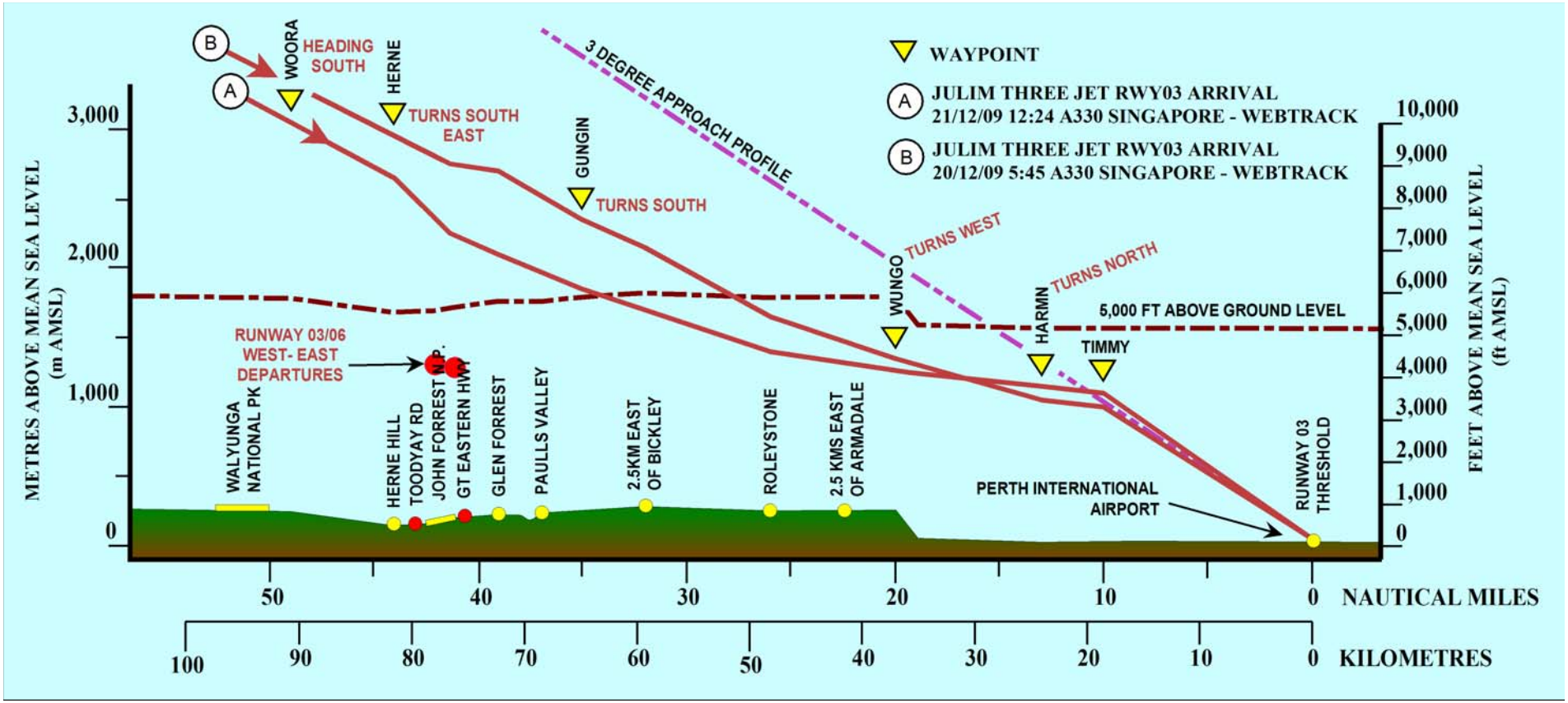

Figure 4: Approach Profile JULIM/CONNI. Perth Airport Arrival Route JULIM for Jets showing miles to touchdown and altitude of 2 typical aircraft overflights in relation to locations in the Perth Hills to the East of the airport. The NON-JET CONNI follows much the same track, but the altitudes may vary due to performance differences between Jets and Non-Jets. Note the dotted line marked on the chart showing the Airservices Australia minimum acceptable altitude for avoidance of significant noise impact on residential populations by Jet aircraft. In this case, 5000ft Above Ground Level. *(The horizontal scale is compressed to allow 100 km of the route to be shown. In reality, the descent angles would be much flatter.)*

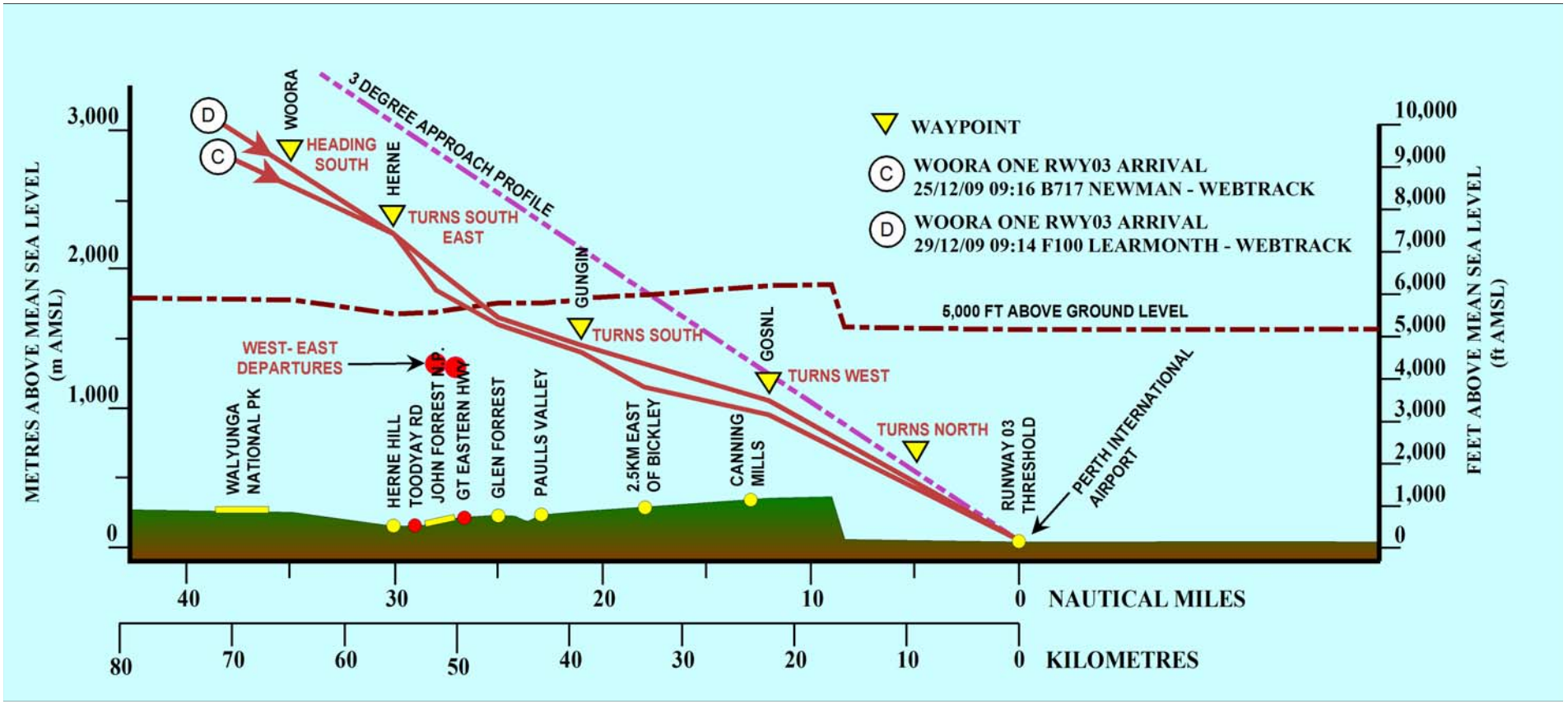

Figure 5: Approach Profile WOORA. Perth Airport Arrival Route WOORA for Jets and Non-Jets showing miles to touchdown and altitude of typical aircraft overflights. Similar to Fig 4, the appropriate 5000ft AGL significant noise impact line for Jets has been included. *(The horizontal scale is compressed to allow 80 km of the route to be shown. In reality, the descent angles would be much flatter.)*

REFERENCES

[Ref 1] Media Release - Largest air route restructure in 30 years implemented - 11/08
http://www.airservices.gov.au/projectsservices/projects/waroutereview/docs/presentations/perth_flight_routes_before_and_after.pdf

[Ref 2] West Australian Route Review Project Flight Routes Before and After Nov 2008
http://www.airservices.gov.au/media/pressreleases/pr11_08.asp

[Ref 3] Bureau of Infrastructure, Transport and Regional Economics [BITRE], Airport Traffic Data 1985-86 to 2008-09
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[Ref 4] Western Australia Route Review Project (WARRP) Information for the community.
http://www.airservices.gov.au/projectsservices/projects/waroutereview/communityinfo.asp

[Ref 5] WARRP Fact Sheet (Information for Residents)
http://www.airservicesaustralia.com.au/projectsservices/projects/waroutereview/docs/warrp_InfoRes_factsheet.pdf

[Ref 6] Environmental Principles And Procedures For Minimising The Impact Of Aircraft Noise.
http://www.airservicesaustralia.com/projectsservices/reports/

[Ref 7] Airspace and Route Review for Western Australia and surrounds incorporating a Revised GPS Based Navigation Tolerance Minima– July 2008 update
http://www.airservicesaustralia.com/projectsservices/projects/waroutereview/docs/warrp_july_08_update.pdf