

**Final Report for North Canberra Community Council on Canberra  
International Airport Preliminary Draft 2008 Master Plan**

**by**

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## OVERVIEW AND SUMMARY

This report provides an analysis of Canberra International Airport's (2007) *Preliminary Draft Master Plan 2008*. The Master Plan can be purchased in hard copy from the Airport or downloaded free from Canberra International Airport's website (<http://www.canberraairport.com.au/>). **Submissions to the Airport are due by 27 February 2008.**

The *2008 Master Plan* has a vision statement that says (p. 9):

Our vision is to develop Canberra International Airport as a first-class facility to serve the region's evolving transportation, business and development needs and to maximise the growth of a wide range of aeronautical and non-aeronautical businesses.

The scale of the proposed developments in the plan is huge, with Canberra Airport seeking to play a significant role in meeting the aviation needs of the Sydney basin, in effect becoming a second airport for Sydney. Further, the Airport is seeking to become a regional, national and international 24-hour freight hub destination, with links to all Australian capital cities and New Zealand. It envisions this as Australia's "first true freight hub". In addition, large-scale non-aeronautical developments at the Airport are envisaged.

A selection of more prosaic objectives from the plan include:

- maximise economic growth of the Airport (Objective 4)
- provide a business environment that allows the Airport and its associated businesses to reach their potential (Objective 5)
- develop Canberra International Airport as a multi-modal transport hub for passenger and freight connections (Objective 6)
- attract significant traffic from Sydney Airport, including domestic and international passenger and freight services (Objective 7)
- develop non-aeronautical land to its maximum potential (Objective 9).

A new umbrella community group—Curfew 4 Canberra—has been formed to resist the main elements outlined in the Master Plan, as outlined below. It aims to:

- secure a night-time curfew at Canberra Airport
- oppose Canberra Airport becoming the second Sydney airport and a 24-hour national and international freight hub
- oppose the construction of a parallel main runway
- oppose light aircraft engaged in training activities transiting or overflying residential areas
- pursue appropriate amendments to the Canberra Noise Abatement Area
- inform the Canberra, Queanbeyan and surrounding communities about the consequences of aviation expansion that impact on residents' quality of life
- represent the concerns of residents and members to government and authorities.

The analysis provided in this report (on aircraft noise and the proposed freight hub) supports the need for a night-time curfew. Other arguments related to greenhouse gas

emissions, health, quality of life, and economic issues are not supportive of the large expansion envisaged by the Airport, in view of the very significant disadvantages raised. Significant issues covered in this report include:

### Choice of futures

The Canberra Airport Master Plan is typical of the so-called “growth forever” scenario of the future. Free market forces and economic globalisation underlie this worldview, together with the naïve extrapolation of single variable trends into the future. It has a futures vision linked to economic growth, high pace, high energy use, rapidly expanding greenhouse gas emissions, a strong consumption focus, and the promotion of high mobility patterns. A new approach based on another set of assumptions is needed. Ecological scenarios for the future are possible that recognise that there are limits to growth. Slower pace, local and regional economic development, much lower energy use and reduced mobility patterns are characteristic of this pathway. Communities can choose another future.

### Climate change

Research studies in the UK and Australia (both nationally and locally in the ACT) underline the disproportionate allocation of growing emissions from the aviation sector, which has very significant consequences for other carbon dioxide-emitting sectors of the economy. Canberra Airport’s Master Plan has apparently overlooked or ignored an emerging and significant policy debate in recent years that focuses on the serious sustainability impacts of air transport in relation to climate change. A 2008 study on Canberra Airport by the Australia Institute found that aviation would account for 9% of the ACT’s emissions in 2025, and by 2050, would constitute 216% of the ACT’s target. (The ACT Government’s Climate Change Strategy aims by 2050 to reduce the Territory’s emissions by 60% on 2000 levels.) That is, the Climate Change Strategy would, in effect, not be achievable given the projected growth.

### Economic issues

Canberra Airport’s expansion plans go well beyond the immediate needs of the Canberra region, in that it seeks to become a second airport for the Sydney basin, and a national and international freight hub. Many of the economic advantages would be exported from the ACT, whereas the international and national focus would expose the ACT region’s population to a reduced quality of life. The plans are also associated with the introduction of jobs with anti-social working hours as with the planned 24-hour freight hub.

In keeping with the “growth forever” scenario above, governments generally, as well as the aviation and tourism industries, champion the economic benefits of the continuing growth of aviation. In general, they tend to uncritically accept the assumption that airports act as significant “engines of the local economy”. An analysis of the economic case for expanding Bristol International Airport by Professor John Whitelegg is relevant for the Canberra scenario, in that the claims that expansion is good for job creation and inward investment were not supported. Likewise, all proposed air routes from Canberra Airport would need to be subject to independent economic analysis to demonstrate whether there is a net economic benefit for the ACT region or not, as the case may be.

### Aircraft noise

The Master Plan projects increases in aircraft movements from 81,732 (2005/06) to between 136,209 and 180,551 in 2027/28. By 2050, a Practical Ultimate Capacity produced for the airport is based on 282,120 annual fixed wing aircraft movements, which is similar to Sydney's current movements. The significant increase in aircraft movements involving 24-hour operations and larger, noisier aircraft at night will increase aircraft noise pollution proportionately. Expanding noise footprints (including night noise) would increasingly affect residents of North Canberra suburbs, especially those close to the Majura Valley. Flights in sensitive night-time hours would be expected to affect North Canberra suburbs in the relatively near term, as compensatory measures have had to be implemented by the Airport even with the small number of night flights that exist now. In due course other areas would be affected by broad area noise as well e.g. Gungahlin and Belconnen via the frequency of jet aircraft overflying suburbs at greater heights. Canberra Airport's prime argument in relation to aircraft noise is that 99.5% of Canberra and Queanbeyan residents are protected from significant adverse aircraft noise as a result of the establishment of Noise Abatement Areas. However, this argument is flawed for a number of reasons as discussed in this report. Local community groups contest what constitutes "significant adverse aircraft noise". Suburbs in the eastern part of North Canberra adjacent to the Majura Valley (such as Watson, Hackett, and Campbell) are already affected by aircraft noise, without even considering the envisaged expansion.

### Freight hub

The Master Plan states that Sydney is constrained by an overnight curfew, and argues that a central component of the Master Plan is that Canberra Airport remains curfew free. It believes the curfew in Sydney would encourage operators to locate their operations in Canberra. As well as envisaging "international, trans-tasman and domestic freight flights congregating at Canberra, exchanging freight, and departing again" (p. 43), it also envisages freight destined for Sydney (and in some cases Melbourne) being transferred to trucks. However, overseas experience shows that freight hubs have significant ramifications for people's health, as night-time noise and sleep disturbance are perceived to be much worse than day-time disturbances. Consequently, locations willing to accept night flights are becoming progressively harder to find. Locating freight hubs further from population centres is one approach. In contrast, Canberra Airport's inner city location and quiet background noise levels make it particularly unsuited for this purpose.

### Planning issues

In general, the leasing of Australia's capital city airports by the Commonwealth Government to private operators has resulted in a vast expansion of commercial developments on these airport sites. The management of major airports on Commonwealth land falls primarily under Commonwealth law, especially the *Airports Act 1996*, effectively quarantining all development from State, Territory, and local government planning and land use control. Unsurprisingly, there has been considerable disquiet and in some cases marked opposition to such non-aeronautical airport developments from a wide variety of interests. Canberra Airport has been the subject of similar controversy. With respect to further planned large-scale developments at the

airport, Queanbeyan City Council and Gungahlin Community Council have expressed strong concerns that unfettered office and retail development at the Airport will take office employment from their respective locations. Continuing airport development will further increase traffic on the surrounding road systems and runs counter to sustainable transport policies favouring the reduction of car dependency and the promotion of local town centres. The ACT Government has announced it will spend \$15 million to upgrade traffic-congested roads around the Airport, with increased development at the Airport being one of the contributing factors. Further development at the Airport as envisaged in the Master Plan could easily necessitate further public expenditure for infrastructure upgrades.

*Airports Act 1996* – Discussions with community representatives and literature accessed for this report underline inadequacies with the *Airports Act 1996* and with processes linked to an airport's Preliminary Draft Master Plan. In this case, Canberra Airport is perceived as being overly influential and considerably less than impartial. There is clearly a need for reform of the *Airports Act* to address:

- (a) inadequacies linked to unconstrained development at airports vis-à-vis the surrounding State or Territory planning processes—in the case of the Canberra Airport the consequences of further development at the Airport are perceived to be considerable
- (b) the need for perceived objectivity and transparency in the way the Master Plan consultation process is conducted and evaluated. At present community groups under the North Canberra Community Council and Curfew 4 Canberra umbrellas consider that the process is weighted far too heavily in favour of Canberra Airport as framer and controller of information flows in relation to the Master Plan.

### Grasslands and Grassland Earless Dragon

At the public meeting on Canberra Airport held on 7 February 2008, a representative for the group Friends of Grasslands (FoG) expressed strong concerns about the Airport's plans vis-à-vis grasslands and the Grassland Earless Dragon. FoG expresses the view that Capital Airport Group (CAG) has been a poor custodian of land with important biodiversity assets: CAG has progressively destroyed Natural Temperate Grassland and habitat for threatened species. In a previous submission of 19 January 2008, FoG considers the proposal to transfer land from the Department of Defence to facilitate road construction across the northern end of Canberra Airport to be unacceptable.

### **Structure of the report**

Short summaries of the central elements of the 2008 Preliminary Draft Master Plan and the community and political responses to date provide an introduction. The way in which the debate is framed and discussed is subsequently considered. This is relevant to the issue of a choice of futures.

Then the implications of various issues—namely climate change, economic issues, aircraft noise, a freight hub, planning, the *Airports Act 1996*, and affected grasslands and threatened species—are discussed in greater and more pragmatic detail in relation to the Preliminary Draft Master Plan.

## **Canberra Airport's vision for its 2008 Master Plan**

The central elements of Canberra Airport's Master Plan include:

- projected increases in passenger numbers from 2.7 million in 2006/07 to between 6.2 and 7.9 million by 2027/28 (Canberra International Airport, 2007, p. 40)
- projected increases in aircraft movements from 81,732 (2005/06) to between 136,209 and 180,551 in 2027/28 (Canberra International Airport, 2007, p. 42). By 2050, consultants engaged by the airport produced a Practical Ultimate Capacity ANEF for the airport based on 282,120 annual fixed wing aircraft movements (Rehbein AOS Airport Consulting, 2007, p. 14). This includes 121,528 total fixed wing (around 90,000 jet) night movements i.e. a movement between 7pm and 7am about every two minutes or so
- the Airport is seeking to play a significant role in meeting the aviation needs of the Sydney basin, in effect becoming a second airport for Sydney
- the Airport is seeking to become a regional, national and international 24-hour freight hub destination, with links to all Australian capital cities and New Zealand. It envisions this as Australia's first true freight hub
- to meet the increased traffic projected over time, the Airport Master Plan flags the construction of a parallel runway, with land acquisition occurring well in advance of the airport reaching capacity.

## **Community and political responses to 2008 Master Plan**

A new umbrella community group—Curfew 4 Canberra—has been formed to resist the main elements outlined in the Master Plan, as outlined below. It aims to:

- secure a night time curfew at Canberra Airport
- oppose Canberra Airport becoming the second Sydney airport and a 24-hour national and international freight hub
- oppose the construction of a parallel main runway
- oppose light aircraft engaged in training activities transiting or overflying residential areas
- pursue appropriate amendments to the Canberra Noise Abatement Area
- inform the Canberra, Queanbeyan and surrounding communities about the consequences of aviation expansion that impact on residents' quality of life
- represent the concerns of residents and members to government and authorities.

Curfew 4 Canberra's membership includes representatives from a variety of community associations including Watson Community Association, Hackett Community Association, North Canberra Community Council, Gungahlin Community Council, Jerrabomberra Residents' Association, and Pialligo Residents' Association.

A public meeting on the airport's planned expansion was held on 7 February 2008, convened by Dr Deb Foskey MLA. There were strong calls for a night time curfew at the meeting (ABC 666 Canberra, 2008).

### **Framing the debate**

One useful way of analysing Canberra Airport's Preliminary Draft Master Plan is to pay attention to its central underlying assumptions and language. That is, the way in which the arguments are framed and constructed is critical. The notion of discourse—a shared way of perceiving the world—is relevant here. A variety of discourses are possible, with the way one discourse considers the world not always being easily understood by those who subscribe to other discourses. A discourse rests on assumptions and judgements that provide the basic terms for analysis and debate.

#### *The “growth forever” scenario*

The Canberra Airport Master Plan is typical of the so-called “growth forever” discourse or scenario of the future (Dryzek, 1997, p. 45). The language is generally mechanistic and uses entities such as consumers, markets, prices, energy, and technology. Free market forces and economic globalisation underlie this worldview, with material self-interest the prime motivating force. A leading researcher in the transport area expressed this market-based neoliberal economic viewpoint as follows: “A major criterion for measuring the success of our air transportation system should be our ability to use air travel as a competitive advantage in a global economy” (Button & Taylor, 2000).

Typical of the “no limits” metaphor of economism is the naïve extrapolation of single variable trends into the future. For example, the upward projections for tourism favoured by the World Tourism Organization's (2002) *Tourism 2020 Vision* projections suggest an average annual growth rate of international tourism arrivals of 4.1% for the period 1995 to 2020, with the numbers of international tourism arrivals expected to reach one billion by 2010 and 1.6 billion by 2020.

Natural resources, ecosystems, and nature are barely or not visible at all in this worldview. For example, the drive to consume large distances is inherent in global tourism and air travel, and also the logistics of “just-in-time” freight transport. Distance has been transformed into a commodity that is consumed at an increasing rate, with such consumption being possible through the allocation of large amounts of energy and large amounts of public expenditure (Whitelegg, 1997).

Typical examples of how this framework underpins the Canberra Airport's 2008 Master Plan (Canberra International Airport, 2007) include:

“We have also undertaken major strengthening works on Runway 17/35, with a contribution from the Commonwealth, to allow unlimited landings of larger aircraft types such as the Boeing 747 and Airbus A380.” (p. 7)

“This Master Plan serves as a framework for the rational expansion of the Airport and to promote the future economic growth of the Region.” (p. 22)

“Close to 2.7 million passengers passed through the Airport during 2006/7 and this is expected to grow, at conservative, mid-range expectations, to around 6.4 million passengers annually within the next 20 years.” (page before p. 31)

“Given the curfew imposed on Sydney Airport, the 80 movements per hour cap, restrictions on aircraft parking, and rapidly increasing demand for flights, opportunities exist from Canberra International Airport to play an important longer-term role in meeting the aviation needs of the Sydney basin.” (p. 13)

A number of community groups and Queanbeyan City Council consider that the projections in the Master Plan are considerably inflated. An analysis by Queanbeyan City Council (2008, p. 46) suggests that Canberra Airport’s successive Master Plans have consistently overestimated projected aircraft movements. The longer-term projections used by the Airport are likely to be particularly problematic. As a landmark report on aviation prepared for the Intergovernmental Panel on Climate Change observes (Henderson & Wickrama, 1999, p. 320):

Long-term (beyond 20 years) projection of aviation traffic demand, fleet fuel burned, and fleet emissions are inevitably speculative ... myriad uncertainties resulting from human society’s development over the period in question all conspire to make long-term projections unreliable—sometimes astoundingly so.

### *Ecological scenarios*

In contrast with the “growth forever” scenario, a variety of ecological scenarios for aviation futures recognise that there are ecological and social limits to growth. For example, the Centre for Sustainable Transportation (2000) in Canada considers that two factors likely to curtail the aviation growth envisaged by the aviation industry are the need to curb greenhouse gas emissions and the lack of availability of low-cost aviation fuel, a consequence of the end of cheap oil. The centre concludes that a more likely scenario is that aviation activity will actually decline over the next 30 years, and that the rapid airport expansion now occurring worldwide constitutes an unwise investment in the wrong kind of infrastructure.

Canberra Airport’s Master Plan has apparently overlooked an emerging and significant policy debate in recent years that focuses on the serious sustainability impacts of air transport in relation to climate change. This is very obvious from the master plan, as the word “greenhouse” appears once in brackets on page 81, and a search for “climate change” or “global warming” brings up nothing. Instead, the master plan focuses on issues such as “green buildings” at the airport, which “reflect the Airport’s absolute commitment to environmental sustainability” (Canberra International Airport, 2007, page before p. 9).

In contrast, the Royal Commission on Environmental Pollution (2002b) in the UK has played a strong role in challenging the *status quo* position of the UK Government and the aviation industry with respect to the continuing expansion of aviation and airports. In a special report entitled *The Environmental Effects of Civil Aircraft in Flight*, it expresses deep concern about the global impacts of the rapid growth in air travel.

The following extract from a news release associated with the publication of the report is unequivocal in its emphasis (Royal Commission on Environmental Pollution, 2002a):

Emissions from aircraft are likely to be a major contributor to global warming if the present increase in air traffic continues unabated. The government shows little sign of having recognised that action to reduce the impacts of air transport is just as important as action in other sectors contributing to climate change. The problems are challenging but it is imperative that environmental priorities are not simply sidelined as being too difficult. If no limiting action is taken, the growth in air transport will proceed in fundamental contradiction to the government's stated goal of sustainable development.

In an earlier report on *Transport and the Environment*, the commission devotes a chapter to air transport and graphs the consequences for carbon dioxide emissions under a number of scenarios (Royal Commission on Environmental Pollution, 1994). It concluded that:

The ... management of demand will be the most critical factor in the long term in limiting carbon dioxide emissions from air transport: it is suggested that this might be achieved through a progressive reduction in business travel and air freight, and slower growth of tourist travel.

Since that report was published, the commission suggests that “the case for action to limit climate change has become even more compelling” and “that some form of demand management must be implemented in order to avoid long-term damage to the environment” (Royal Commission on Environmental Pollution, 2002a).

### *Choice of futures*

Although the Canberra Airport 2008 Master Plan opts for a particular view and focus on the future, the field of futures studies examines the *range* of futures and considers possible, probable, and preferable futures including the worldviews and values underlying each future (Inayatullah, 2002). The notion of *choice* of futures is raised.

With respect to aviation, Akerman (2005) considers four possible futures linked to air travel in 2050. The various options depend on factors such as:

- Predominant focus in society—whether this be GDP-growth or activities relying less on consumption and a focus on leisure
- Pace in society—fast or slow
- Role of IT—with varying effects from generating more transport to substituting for transport
- Spatial focus—global or local/regional.

Air travel growth has historically been highly correlated with GDP-growth, and in fact has grown even faster. The Canberra Airport Master Plan is framed in terms of this approach, with a focus on economic growth, fast pace, and global networks with much expanded aviation. Promoting greater mobility through, for example, lower fares and encouraging low-cost airlines are basic tenets of this approach.

However, a policy position that has a city airport as a necessary node in the global economy can be contrasted with other positions that question the benefits of further aviation growth, or that even question our want of mobility. The need to reduce the need for air transport—in effect a questioning of the “predict and provide” approach to aviation planning—is in accord with the sustainable transport literature, which increasingly emphasises that the rapidly growing demand for mobility cannot be met in a sustainable way.

In Akerman’s choice of aviation futures, one such scenario has a low consumption and leisure focus, is slow-paced, has much lower total travel passenger-kilometres (and consequently much lower greenhouse emissions), and a local/regional spatial focus. Yet another option can still have these characteristics, but more of a global spatial focus through the use of IT to substitute for much air travel. Investment in more diversified local economic development of regions is therefore one way of reducing the growing demands of air traffic. Where mobility needs must be met, modal change, especially to high-speed rail, is regarded as a sensible option for short-range traffic, for both economic and environmental reasons (Royal Commission on Environmental Pollution, 2002b, p. 33).

## **Central critiques of Canberra Airport Preliminary Draft 2008 Master Plan**

### *1 Climate change*

As discussed above, the Royal Commission on Environmental Pollution has been expressing concern for some time about aviation’s rapidly growing greenhouse emissions. More recent work by the Tyndall Centre for Climate Change (Bows & Anderson, 2007) has quantified the aviation industry’s carbon dioxide emissions in relation to the UK’s total carbon budget. Once again, it highlights a fundamental contradiction between the UK Government’s Energy White Paper targets for carbon dioxide emissions and the same government’s desire to facilitate airport expansion.

For the stabilisation level of 450 ppmv now commonly associated with reducing the risk of “dangerous climate change”, the UK Government’s projections for the aviation industry were found to account for between 50% and 112% of the UK’s 2050 carbon budget. These estimates did not take into account the enhanced radiative forcing from aviation from emissions other than carbon dioxide, contrails and cirrus clouds. These are linked to a two to four times further warming impact than that from carbon dioxide alone (Penner, Lister, Griggs, Dokken, & McFarland, 1999), meaning that the Tyndall Centre’s results are underestimates.

The same policy clash and contradiction between aviation and airport expansion on the one hand, and the need to markedly reduce greenhouse gas emissions on the other, has similarly been quantified for Australian aviation by the Australia Institute. One study addresses aviation nationally (Macintosh & Downie, 2007), and another specifically addresses Canberra Airport’s vision for growth vis-à-vis the ACT Government’s Climate Change Strategy (Dobbin, 2008; Macintosh & Downie, 2008). In essence, the studies underline, both nationally and locally in the ACT, the disproportionate allocation of growing emissions from the aviation sector, which has very significant consequences for

other carbon dioxide-emitting sectors of the economy.

The study on Canberra Airport (Macintosh & Downie, 2008) uses a conservative uplift factor of 1.7, as most estimates of aviation's contribution to climate change understate its importance by failing to take account of non-CO<sub>2</sub> emissions. However, the emission projections are deliberately conservative, being confined to passenger-related emissions. Freight, general aviation and military emissions are all excluded. The ACT Government's Climate Change Strategy aims by 2050 to reduce the Territory's emissions by 60% on 2000 levels. The main findings from the study suggest that aviation would account for 9% of the ACT's emissions in 2025, and by 2050, they would constitute 216% of the ACT's target. That is, the airport's projected growth plans would make it impossible for the ACT Government's climate change target to be met. The projected growth also makes it clear that the 2050 emissions from international aviation at Canberra Airport would greatly exceed those from domestic aviation.

In contrast with the 2008 Master Plan's almost total avoidance of the aviation emissions issue altogether, the Australia Institute study recommends that new airport developments and airport master plans should be subject to formal statutory environmental assessment procedures that require evaluation of the greenhouse implications of increases in aviation traffic. Some will argue that the allocation of international aviation emissions is still not resolved and therefore the argument is not relevant. However, it is clear that carbon pricing will be a fact of life relatively early in the 20 year timeframe for the Master Plan. It is also apparent that there would be a huge moral contradiction between a Territory committed to significant emissions reductions, while at the same time its local airport was significantly increasing emissions.

## 2 *Economic issues*

In keeping with the "growth forever" discourse discussed above, governments generally, as well as the aviation and tourism industries, champion the economic benefits of the continuing growth of aviation. For example, ACT Chief Minister Jon Stanhope is quoted in the Master Plan (p. 25) as follows:

For us to continue to develop as a vibrant commercial and tourist destination, the face we present to the world is extremely important. Canberra International Airport is now a gateway to the region of which any city could be proud.

Likewise, Canberra Airport seeks "to ensure that the Airport and Government are closely integrated. The Government's Economic White paper and Canberra Spatial Plan are two excellent examples of the Airport's successful integration" (page before p. 25). Many times throughout the Master Plan the following language and theme is repeated (p. 25):

Canberra International Airport plays a pivotal role in the current and future success of Canberra and the region as a major social, tourism, business, government and trade gateway.

At present policy-making is strongly influenced by the prevailing vested interests. In Britain, Sewill (2003) asserts that the aviation industry spends more on advertising, public relations and lobbying than any other UK industry. One strategy used is the use of economic studies that support the economic contribution of aviation to the economy and

regional development. Such studies are used to target politicians and bureaucrats, with local authorities generally subscribing to the thesis that a new or expanded airport is a way of bringing prosperity to a region. In Canberra, an earlier study undertaken by ACIL Tasman is described by the airport owners as an “independent study that assesses the economic importance of the Airport to ... the region” (Canberra International Airport, 2003). In summary, the report concludes:

Growth of activity at the Airport has a trend increase which is substantially higher than growth in the economy of the region ... We expect this trend to continue as Australian incomes continue to grow and as low cost airlines create downward pressure on fares.

It is true that a case can be made within a defined framework that airport expansion is associated with job creation and economic growth, together with enhanced travel opportunities and choices (Caves, 2003). Certainly, the introduction of low cost carriers and additional routes has unlocked latent demand at airports such as Canberra Airport. The ACT Government and Canberra Airport (like most other governments and airports) are enthusiastic about the expansion of aviation in relation to expanding tourism and the benefits for Canberra’s economy. For example, the ACT Minister for Tourism, Andrew Barr, refers to an ACT Government \$320,000 airline partnerships strategy in terms of maximising visits via international flights from Asia to events such as Floriade (Thistleton, 2008). In relation to people’s travel behaviour, long-distance mobility has become commonplace and a consumer expectation (Shaw & Thomas, 2006). In this sense, it can be argued that an expanded choice of domestic and international routes will give those in the Canberra region more accessible travel opportunities. In general, those supporting a position that airports have primarily positive economic effects, and are integral to economic development and regeneration, are mostly governments, airports, airlines, aviation-related businesses, and many consumers.

In contrast, in recent years an environmental critique challenging the primacy of the economic contributions of aviation to national and regional economies has been gaining ground, together with growing public opposition to the disadvantages of expanding aviation. Non-government organisations and some academics have increasingly questioned the validity of studies with a narrow economic focus, especially where the airlines and airport operators’ associations provide financial and moral support for them (Aviation Environment Federation, 2002; Whitelegg & Williams, 2001).

Politicians too have begun to grapple with how a “balance” is to be (or even can be) achieved between social and economic benefits and the social and environmental costs. In a debate by British parliamentarians in 2003, Tony McNulty stated that the UK air freight industry is worth a total of 5 billion pounds to the UK economy, and accounts for 50,000 jobs directly and as many again in indirect employment. Further, the market is growing rapidly. On the other hand, David Taylor in the same debate quotes a Treasury report which calculates the cost of greenhouse gas emissions, air pollution, and noise at more than 1.4 billion pounds per year (Westminster Hall debates, 2003).

Broad based studies are needed, which take into account aviation’s social and environmental impacts and adopt a more critical and holistic approach. The likely introduction of a price on carbon and rapidly rising greenhouse gas emissions will likely

markedly shift the parameters for debate as the impacts of climate change become more obvious. The framework for tourism will soon have to expand beyond a narrow focus on business and economics, with recent work suggesting that air travel for tourism has a very significant environmental impact, particularly with international long-distance flights (Becken, 2002a; Hoyer, 2000). Although globalisation and competition between host cities for international conferences is part of the current economic landscape, conference tourism also presents a trend with significant environmental ramifications (Becken, 2002b; Hoyer & Naess, 2001).

Canberra Airport's expansion plans go well beyond the immediate needs of the Canberra region, in that it seeks to become a second airport for the Sydney basin, and a national and international freight hub. There is a lack of detail in the Preliminary Draft Master Plan about employment, other than what could well be an "ambit claim" for up to 25,000 people possibly being employed directly at the Airport by 2027/28 (p. 22). Whitelegg's (2005) analysis of the economic case for expanding Bristol International Airport (BIA) is relevant for the Canberra scenario, in that the claims that expansion is good for job creation and inward investment were not supported. Whitelegg found that there was no economic or public policy justification for prioritising airport expansion over, for example, investment in renewable energy or innovative manufacturing using environmental technology. If airport expansion is constrained and fewer people fly then those people will still spend their money.

More specifically, Whitelegg found that doubling BIA's present capacity would cost the local economy as much as 78 million pounds per year, and revealed in addition a much higher outflow of funds from the UK than funds coming into the country. In addition, Bristol International Airport contributes significantly to congestion, and the negative economic impact of congestion was not factored into consideration of the role of BIA in the local and regional economy. Canberra Airport's plans are essentially as a large distribution centre for Sydney purposes, and for air freight nationally and internationally. All proposed air routes from the Airport would need to be subject to independent economic analysis to demonstrate whether there is a net economic benefit for the ACT region or not, as the case may be. Another finding from the Whitelegg study is that many of the jobs created would be low paid, insecure and seasonal, with anti-social hours. The thrust of cheap, no-frills flights is to reduce costs and employment per passenger by measures such as automated check-in. A 24/7 freight hub in Canberra likewise would distribute economic benefits outward from the ACT region, and by definition would involve anti-social working hours that are increasingly being shown to be a threat to workers' health.

As discussed in the section 5 on planning below, the effect of unconstrained non-aeronautical developments at the airport is to draw employment away from existing town centres in Canberra and also Queanbeyan. This also has significant implications for increased car dependency and road expenditure.

### 3 *Aircraft noise*

Some years ago, the Senate Select Committee on Aircraft Noise in Sydney (Senate Select Committee on Aircraft Noise in Sydney, 1995, para. 1.30, p. 7) noted that the "effect of airports and aircraft operations on surrounding communities is a contentious and enduring

issue, and aircraft noise is perhaps the most contentious and enduring aspect of that issue". One of the reasons aircraft noise is such a contentious issue is that different people view the issue differently. Another is that noise is much more than an acoustic problem, but a social and evaluative issue too. That is, noise pollution is a complex social issue requiring the skills of sociologists and planners as much as legislators, in order to deal with subjective differences between people, and to help decide what are tolerable and intolerable noise levels.

The Federal Transport department has outlined some principles and guidance material for better understanding aircraft noise (Department of Transport and Regional Services, 2000; Environment Australia & Department of Transport and Regional Services, 2003). The broad principles are:

- (a) Transparency: communicating to the public in everyday language, and using information that can easily be verified by the public
- (b) Inclusiveness: not excluding people from information because the standard indicates that noise is not a problem
- (c) Empowerment of the individual: placing the individual in a position where they can form their own view on the acceptability of future noise.

Although Canberra International Airport (2007, p. 75) states that it is committed to the International Civil Aviation Organization's approach to aircraft noise management, it is clear that such principles appear to be inadequate for managing the growth in aviation that is forecast by the Airport. With growth in air traffic, noise contours will continue to expand outwards from major and regional airports, progressively affecting more people. However, this is not the only reason that aircraft noise is becoming increasingly difficult to manage. The Master Plan envisages an increasing number of larger aircraft (such as B767s and B747s), the hub system concentrates traffic at particular locations, and public acceptance of noise is diminishing (National Research Council Committee on Aeronautics Research and Technology for Environmental Capability, 2002, p. 11).

As the National Research Council committee in the USA comments, noise constraints are likely to be part of a "paralyzing collision between the growth of aviation and increasing concerns about the quality of the environment" (p. 5). Moreover, for many people the prime issue is not so much how many movements, or how much noise they receive in total, but whether they are able to get a break from the noise. That is, the noise becomes intolerable because of its frequency, as with the effect of a dripping tap (Department of Transport and Regional Services, 2000, p. 19). Given that the ultimate capacity movements at Canberra Airport approximate those currently in Sydney, a considerable diminution in Canberra's quality of life could be expected in relation to this factor alone.

Public health issues are also involved. The World Health Organization (2001) has highlighted a range of adverse health effects associated with noise and expressed concern about the deteriorating noise environment in many countries. Aircraft noise at night is of particular concern, because of sleep disturbance and associated effects on people's health (Department of the Environment Transport and the Regions, 2000). As discussed in the section on the airport's planned freight hub, this raises the question of sensitive times,

with the most noise sensitive times being night-time, evenings and early mornings and weekends (Department of Transport and Regional Services, 2000, p. 5).

Canberra's background noise levels are also low, it being the quietest of the mainland capital cities. For example, background noise levels measured in Hackett in January 2008 were around the 30 dBA level (see Appendix 1). This issue, combined with the airport's inner city location between Canberra and Queanbeyan, is very likely to prove problematic. This is shown by an example from the USA. Many of the noise complaints received by Denver International Airport are from residents 40 miles away, in the vicinity of Boulder. Prior to construction of the Denver airport, its location was not considered to pose a noise problem, as the closest residential areas were nearly 10 miles away. Parts of the Boulder area, however, are isolated from both industrial and road noise, and the relatively quiet environment makes a jet at 10,000 feet seem noisy when it passes overhead at climb thrust (National Research Council Committee on Aeronautics Research and Technology for Environmental Capability, 2002, p. 19).

In support of these observations, the issue of broad area noise is now receiving wider attention as in the *ICAO Environmental Report 2007* (Southgate, 2007). In recent times, noise associated with air routes at significant distances from airports has become a significant issue in some countries. Non-auditory factors, especially noise expectations, have been found to be very important in determining the level of public annoyance from aircraft noise. Public annoyance can be very high if there is a community expectation that certain areas should be "quiet", with this factor coming into play with communities living outside the usually considered noise contours. In addition, as flagged above, the character of aircraft noise patterns is changing. Aircraft noise disturbance is also coming from high numbers of aircraft movements, and a lack of respite, rather than the loudness of individual flights. Noise events are also becoming more frequent in sensitive time periods such as evenings and weekends.

One of the approaches used for depicting aircraft noise in the airport's Master Plan is the single event contour, as with those shown for Boeing 737-400 and Boeing 767-300 arrivals and departures (Figures 11.8 and 11.9 on pp. 94 and 95). As flagged above, an individual can verify such information comparatively easily using a noise level meter (Environment Australia & Department of Transport and Regional Services, 2003, p. 28). Measurements taken by Geoffrey Willans at his residence in Hackett (see Appendix 1) demonstrate that the B737 Single Event Contour plan (Figure 11.8) is not supported by the readings. Extrapolation from the B737 contour plan would suggest that noise levels at the edge of Hackett should be below 55 dBA for B737s. However, readings have been in the low 60s, with one reading of 66 dBA (12 Jan, 0634, Qantas jet departing north on runway 35). Aircraft noise propagation characteristics in Canberra are strong with a cool, dry atmosphere and frequent inversions. At the same Hackett site, a jet taking off to the south on runway 17 delivered a noise reading of 40 dBA against a background of 34 dBA, despite the intervening Mt Ainslie ridge and being more than 6 kilometres distant. B767s and B747s would be expected to be much noisier than B737s. Background noise is also lower than might be expected. Generally, night background noise is in the low 30s, but for the late evening and early morning, is below 30 dBA. Night aircraft noise will be at least eight times background noise, which with the number of night movements, suggests that residents are going to be disturbed or woken multiple times through the night. North Canberra suburbs, especially those immediately adjacent to the Majura Valley such as Watson, Hackett, Ainslie, and Campbell, are likely to be affected. A

similar situation would also apply in other parts of eastern Canberra (e.g. Kingston, Narrabundah) and certainly in Jerrabomberra and Queanbeyan. This in turn suggests the need for preventive action i.e. introduction of a curfew between 11pm and 6am. Even at this early stage of the airport's projected growth, the airport acknowledges that "the arrival at around 6am of the direct flight from Perth has been subject to significant levels of complaints by residents, largely within the 65 dBA single event contour" (Canberra International Airport, 2007, p. 93).

Canberra Airport's prime argument in relation to aircraft noise is that 99.5% of Canberra and Queanbeyan residents are protected from significant adverse aircraft noise as a result of the establishment of Noise Abatement Areas in 1995 (Canberra International Airport, 2007, p. 77). The position argued is that jet aircraft do not overfly people except at higher altitudes. However, this argument is incorrect, and flawed for a number of reasons:

(a) As acknowledged by the Airport in the Master Plan, the 20 ANEF contour used for land use compatibility is not a good guide for the level of noise complaints. As the Airport puts it (p. 99): "The level of complaints in residential areas outside the 20 ANEF contour for Canberra and at other airports around Australia is of serious concern to Canberra International Airport". As demonstrated by the single noise contour readings in Hackett above, there is not a discrete noise boundary in place in areas of Canberra and Queanbeyan adjacent to the Airport's so-called "High Noise Corridor". Further, while the 99.5% protection assertion is a misreading of the current situation, it is likely to be increasingly inaccurate with the projected growth at Canberra Airport.

(b) Light aircraft, no matter how noisy, can overfly the noise abatement areas. The noise modelling in the Master Plan does not appear to take any account of the light aircraft and helicopter overflight of North Canberra. The noise readings referred to above have been in the high 60s with one helicopter reading of 72 dBA (see Appendix 1). No readings were taken of helicopter traffic originating from the Police complex on Majura Road, which from anecdotal evidence is considered the noisiest aircraft. The light aircraft and helicopter traffic needs to be laterally routed away from residential areas, such as along the Majura Valley. Further, training aircraft overflight of residential areas needs to be relocated outside the city.

(c) Training overflight of residential areas by jets also occurs on a regular basis at low levels of the order of 300 to 400 metres. The noise level of an Air Force B737, for example, is at least 70 dBA.

(d) As demonstrated by the Denver International Airport example above, the contention that jets overflying people at higher altitudes will not generate noise complaints is flawed. This is particularly the case when increased frequency of jet flights is involved i.e. the "dripping tap" factor discussed above comes into play as well. Thus suburbs in Gungahlin and Belconnen, for example, could well be the source of much increased noise complaint as the frequency of jet overflight increases as projected in the Master Plan. The airport's Master Plan ignores the issue of broad area noise and community expectations that is discussed in the *ICAO Environmental Report 2007*.

(e) The issue of what noise levels are acceptable is a contested one, with the approved noise dose being poorly defined. For example, the Airport's Master Plan states (p. 93): "The Commonwealth Government has stated that 65 to 70 dBA is the level at which noise

begins to become intrusive” and “In Canberra, some residents exposed to less than 60 dBA are still calling for additional noise respite measures”. In contrast, the Federal Transport department principles quoted above promote transparency, inclusiveness, and empowerment of the individual in determining the acceptability of future aircraft noise. Community groups in North Canberra argue that suburbs adjacent to the Marjura Valley (such as Watson, Hackett, and Campbell) are already affected by aircraft noise, without even considering the envisaged expansion. The noise measurements listed in Appendix 1 provide empirical evidence for this. In Britain, the ANASE Noise Study was commissioned in 2001. It found that 10 times as many people are affected by aircraft noise than the Government previously admitted. It found that communities start to get annoyed when the noise averages out over the day at 50 dB rather than 57 dB. In London, this means that aircraft noise from Heathrow planes can be a problem as far as 25 miles from the airport (HACAN ClearSkies, 2007).

#### 4 *Freight hub*

Canberra Airport aims to establish a significant regional, national, and international freight hub. Its goal is “the creation of a true freight hub (Australia’s first) with nightly connections to all major Australian cities”. In the Airport’s view, this will make Canberra “the single most attractive city in Australia for any time-sensitive manufacturing, logistics and distribution business to be located.” Further, discussions with key domestic and international air freight operators lead the Airport “to predict that significant night freight operations will commence in the short term” and that “services would be expected to increase rapidly” (Canberra International Airport, 2007, p. 44).

The Master Plan states that Sydney is constrained by an overnight curfew, and argues that a central component of the Master Plan is that Canberra Airport remains curfew free. It believes the curfew in Sydney would encourage operators to locate their operations in Canberra. As well as envisaging “international, trans-tasman and domestic freight flights congregating at Canberra, exchanging freight, and departing again” (p. 43), it also envisages freight destined for Sydney (and in some cases Melbourne) being transferred to trucks.

Long-term forecasts by Airbus and Boeing predict around a 6% annual growth rate for air-freight tonnage over the next 20 years (Boeing, 2006). The role of “belly hold” freight is being increasingly challenged by integrated carriers, with key players including DHL, FedEx, TNT Express, and UPS. Integrated carriers are forecast to grow on average by 13% per annum and to take market share of 31% of the total air freight market by 2019 (Gillingwater, Humphreys, & Watson, 2003).

In contrast with the forecast growth rate, there has been a critique that asks whether the transport of goods by air is sustainable. If a price is put on carbon, as looks increasingly likely, air freight will then have to include externalities that are currently ignored. The Royal Commission on Environmental Pollution (2002bp. 37) concludes that air freight is so much more environmentally damaging than other transport modes that it must be reserved for very high value, and usually perishable goods. Carbon dioxide emissions and fuel use per tonne-kilometre for rail freight are a factor of 20-100 lower than for air.

Nonetheless, the growth trend mentioned above has driven a trend for air freight to move to secondary airports, particularly in view of congestion and lack of slot availability at

major hubs (Canberra Airport uses such arguments in relation to Sydney). However, environmental restrictions such as noise limits and night curfews are common barriers for freight operators, and finding airports free from restrictions is increasingly challenging (Gardiner, Ison, & Humphreys, 2005). Further, air freight tends to employ older, noisier aircraft, compounding the issue of noise disturbance to people's sleep at night.

Overseas experience shows that air freight hubs have significant ramifications for people's health, as night-time noise and sleep disturbance are perceived to be much worse than day-time disturbances. This explains why locations willing to accept night flights are becoming progressively harder to find, and why there is growing pressure to implement night-time bans more widely (Gillingwater et al., 2003). Locating freight hubs further from population centres is one approach, as with more remote ex-RAF bases in Britain. Another approach questions whether air freight operators should operate at night at all, and suggests that supply chains be redesigned accordingly. In the latter approach, it is argued that reliable delivery is really the critical factor rather than 12-hour delivery times.

The earlier-mentioned debate by British parliamentarians in 2003 underlines the contentious nature of air freight hubs. With respect to the freight specific East Midlands airport in the Britain, Mark Todd suggests "the negative aspects, however, are substantial. Aircraft noise affects the lives of my constituents along the flight paths to the west and south-west of the airport" and "although night flying is an essential part of freighter activity, the scale of growth projected at East Midlands would have unacceptable noise impacts on our communities even with the most modern aircraft" (Westminster Hall debates, 2003). David Taylor in the same debate says: "Although East Midlands airport has attempted to ameliorate the adverse effects of its operations by using noise-preferred routes, noise penalty schemes and sound insulation grants, that is not making a sufficient difference to the thousands of people whose human rights are infringed and whose sleep is seriously disturbed by freight aircraft at night".

Although the scale of operation at East Midlands airport is large, Canberra Airport is clearly positioning itself too as a major Australian air freight hub servicing Australian capital cities, and international markets. Canberra Airport's inner city location and quiet background noise levels make it particularly unsuited for this purpose, and were the airport to fully implement the plan as stated, it would no doubt generate similar political angst to that seen in Britain.

Locating a national and international freight hub at the East Coast capital city airport of lowest air freight requirement, and the second Sydney Airport 300 kilometres from Sydney, does not seem best practice for sustainable transportation systems. The plan to truck freight to Sydney (and also Melbourne in some cases) adds an additional night time noise and local air pollution factor, as well as additional greenhouse gas emissions. In effect, Canberra Airport is promoting noise sharing—in this case by Sydney sharing its aircraft noise with Canberra and Queanbeyan.

## 5 *Planning issues*

Canberra Airport management has been involved in considerable non-aeronautical development since the airport was privatised in 1998, when Terry Snow purchased the long-term lease for the airport from the Commonwealth Government. Such developments

have been contentious, as reflected in commonly used labels for the airport such as “Snow-town”, and given that the airport and its associated business park was already being referred to as a “de facto town centre” only four years after its initial purchase (McLennan, 2002). More recently, transport academic Dr Paul Mees has described Canberra Airport as the “worst case” of “unconstrained development” at any Australian airport (Dobbin, 2007).

In general, the leasing of Australia’s capital city airports by the Commonwealth Government to private operators has resulted in a vast expansion of commercial developments on these airport sites. Airport master plans and development plans include non-aeronautical developments such as hotels, business parks, regular and discount retail malls, bulky goods and fast food outlets, and car parking facilities (Freestone, Williams, & Bowden, 2006).

The management of major airports on Commonwealth land falls primarily under Commonwealth law. The *Airports Act 1996* effectively quarantines all development from State, Territory, and local government planning and land use control. Unsurprisingly, there has been considerable disquiet and in some cases marked opposition to such non-aeronautical airport developments from a wide variety of interests, including State and Territory governments, local councils and council coalitions, local business and developers, commercial industry groups (e.g. the Shopping Centre Council of Australia), and environmental and community groups.

Currently, about 8,000 people work at Canberra Airport, with only 2,500 of these being involved with aviation. More than 60% of the operating revenue comes from non-aeronautical activities (Dobbin, 2007). The 2008 Master Plan indicates that the airport “intend[s] to continue with such non-aeronautical developments” and that “development of a vibrant, flexible and supportive commercial environment is essential for the long-term growth of Canberra International Airport as a commercial entity” (Canberra International Airport, 2007, p. 55). The airport promotes the employment issue as a positive aspect of its further development, suggesting up to 25,000 people will be directly employed there by 2027/28 (p. 22). However, the Master Plan does not consider the economic and social impacts on other parts of Canberra and Queanbeyan. In this regard, Graham and Guyer (2000, p. 261) note that airport business parks “can be a zero-sum game if the airport-related jobs are diverted from other locations within the region”.

Queanbeyan City Council (2008, p. 43) notes that the Airport intends to pursue commercial development on a similar scale to the past, and that the magnitude of the foreshadowed development and its economic impacts highlights “the need the need for a coordinated and strategic approach that involves all levels of government and the private sector”. It says that “should non-aeronautical development continue to occur at the same rate for the next 20 years as it has since 1998 which is the stated objective of the Preliminary Draft Master Plan, then there is real concern that unfettered office and retail development at the Airport will draw office employment from the existing urban fabric, and have an adverse impact for small business in those centres” (p. 44).

Gungahlin Community Council has similar concerns about its employment base vis-a-vis developments at the airport. Gungahlin has a design employment base of 23,000 jobs, with nothing approaching that so far. A distinctive element of the employment policies in

Canberra has been the location of major government offices in the new town centres. Nevertheless, the Council's attempts to do something about this issue are being undermined by unscheduled and unplanned development at the airport. The President of Gungahlin Community Council comments: "Each time one of those departments goes to the unplanned office development at the airport, it is one less potential tenant for Gungahlin" (A. Kerlin, personal communication, 26 January 2008).

Further, the bulk of new land being released now and for the next several years is or will be in Gungahlin, so that many of the staff coming to Canberra to fill new vacancies end up living there. If their employing departments are based at the Airport, many people conclude that the quickest way to the airport is through Hackett and Ainslie. This involves "rat runs" through areas such as Madigan and Maitland Streets. Employment located at the airport is effectively resulting in more through traffic for North Canberra.

Additional large-scale developments at the airport are likely to have very significant employment impacts on other parts of Canberra and Queanbeyan. The ramifications are underlined by comments from Sydney Lord Mayor Clover Moore on Sydney Airport. She says: "Sydney Airport is being turned incrementally by stealth into a commercial precinct half the size of Parramatta" (Freestone et al., 2006, p. 504). Similarly, an editorial in the Canberra Times some years ago asserts that Canberra Airport's ambitions for commercial development at the airport "take place in a vacuum, and without reference to ACT planning about shopping centres, office development and land use" ("Airport pitch a smart move," 2003).

The infrastructure upgrades that become necessary as a result of airport developments (particularly relating to congested roads) have also been the subject of controversy. This is largely related to such upgrades occurring at public expense because the *Airports Act* excises development from State and Territory planning laws. Thus, airport developers are not liable for any development contributions. The NSW Roads and Traffic Authority has estimated that the expansion of retail and commercial business at Sydney Airport in line with the master plan would generate thousands of extra vehicles requiring expenditure of \$2.7 billion over 20 years, through additional lanes having to be added to motorways (Freestone et al., 2006, p. 504). Similarly, in Canberra Professor Patrick Troy at the ANU has criticised development at Canberra Airport saying that "if all that commercial space had instead gone into Gungahlin or Woden or Tuggeranong, the roads and public services are already there ... the community, not him [Terry Snow], has to pay the expense of putting in the new roads" (Dobbin, 2007). Likewise, Canberra planner Mike Quirk (2007) considers that unconstrained commercial development at the airport is generating demands for additional road infrastructure, is costly to serve by public transport, and is encouraging greater car use resulting in increased travel and energy use. He considers that most of the employment at the airport has been diverted from more accessible locations elsewhere in Canberra.

The continuing aeronautical and non-aeronautical developments discussed in the 2008 Master Plan are likely to further exacerbate the planning and infrastructure problems discussed above. Such development will further increase traffic on the surrounding road systems and runs counter to sustainable transport policies favouring the reduction of car dependency and the promotion of local town centres. The ACT Government has announced it will spend \$15 million to upgrade traffic-congested roads around the Airport, with increased development at the Airport being one of the contributing factors. Further

development at the Airport as envisaged in the Master Plan could easily necessitate the need for further public expenditure for infrastructure upgrades.

## 6 *Airports Act*

Discussions with community representatives and literature accessed for this report underline inadequacies with the *Airports Act 1996* and with processes linked to an airport's Master Plan. In this case, Canberra Airport is perceived as being overly influential and considerably less than impartial. Queanbeyan City Council (2008, pp. 55-57), for example, has expressed concerns about perceived objectivity and suggests that appropriate guidelines and checks and balances be incorporated in a Regulation for the purposes of the *Airports Act*. This reflects a more general pervasive concern that the consultation provisions are inadequate for effective input into decision-making, in that "consultation" under the Act can effectively mean the mere provision of information and the soliciting of submissions (Freestone et al., 2006, p. 504). In the preparation of the Preliminary Draft 2008 Master Plan, Queanbeyan City Council cites a lack of detail and examples of how preparatory consultation was incorporated into the Preliminary Draft.

There is also the continuing concern of planning agencies across Australia about the extent of non-aviation related development occurring at airports, with inadequate consideration being given in the *Airports Act* to the impacts such as increased traffic and additional infrastructure requirements. This is, in part, linked to Section 112 that explicitly excludes airport operations from the laws of a State or Territory relating to land use planning (Freestone et al., 2006; Quirk, 2007).

There is clearly a need for reform of the *Airports Act* to address:

- (c) inadequacies linked to unconstrained development at airports vis-à-vis the surrounding State or Territory planning processes—in the case of the Canberra Airport the consequences of further development at the Airport are perceived to be considerable
- (d) the need for perceived objectivity and transparency in the way the Master Plan consultation process is conducted and evaluated. At present community groups under the North Canberra Community Council and Curfew 4 Canberra umbrellas consider that the process is weighted far too heavily in favour of Canberra Airport as framer and controller of information flows in relation to the Master Plan.

## 7 *Grassland and Grassland Earless Dragon*

At the public meeting on Canberra Airport held on 7 February 2008, a representative for the group Friends of Grasslands (FoG) expressed concerns about the Airport's plans vis-à-vis grasslands and the Grassland Earless Dragon.

FoG is a community group dedicated to the conservation of natural temperate grassy ecosystems in south-eastern Australia. It is based in Canberra and has more than 200 members including professional scientists, landowners, land managers and interested members of the public. Previous submissions are available on its website at <http://www.fog.org.au/>

A previous submission (19 January 2008) opposes the construction of a road across the northern end of Canberra Airport, because of likely impacts on an important remnant of Natural Temperate Grassland. FoG expresses the view that Capital Airport Group (CAG) “has been a poor custodian of land with important biodiversity assets: CAG has progressively destroyed NTG [Natural Temperate Grassland] and habitat for threatened species”. FoG considers the proposal to transfer land from the Department of Defence to facilitate road construction unacceptable.

## Appendix 1 NOISE READINGS (Geoffrey Willans) – 2008 – 43 Mackenzie St HACKETT ACT

Date	Time	Event	Max level dBA	Remarks
<b>Jets</b>				
6/1	2041	jet departure 35	62	
7/1	0646	B737	63	dep R/W 35
	0657	B737(V)	56	ditto
	0701	B737-800(Q)	62	ditto
	1757	B737-800(Q)	63	dep R/W 35
9/1	1041	jet departure	61	R/W 35
	2037	B737(Q) departure	63	R/W 35
10/1	0717	jet departure R/W 35	62	
	0946	B737(Q) dep R/W 35	63	
	2041	jet dep R/W 35	62	
11/1	0700	B737-800(Q) dep R/W 35	62	
12/1	0634	B737-800?(Q) dep 35	66	Aircraft appeared to be closer than normal
13/1	0140	jet departure	UNK	
	1033	ditto R/W 35	62	
17/1	0647	jet(Q) dep 35	63	
	0936	jet	62	
18/1	0635	jet dep 17	40	background noise 34
	1751	jet dep 35	61	
	1805	B737-800(Q) dep 35	61	
<b>Prop/Helo</b>				
6/1	0838	Light a/c outbound (OB)	67	
	1003	ditto	70	
	1015	ditto	68	
	1117	ditto	69	
	1139	ditto	70	
	1314	ditto	66	
	1447	ditto	67	
7/1	0942	helicopter (blue/white) (IB)	72	300m east, 500 ft
	1111	light twin prop tracking sth	67	2 km west, 2500 ft
	1226	light a/c tracking west	70	300m to S, 1500 ft

	1318	light a/c tracking NW	67	1500 ft
	2150	turboprop tracking W	63	dep R/W 35, 3000 ft
	2159	ditto	57	ditto
10/1	0837	light a/c tr Nwly	61	1500 ft, about 1 km SW
	0951	light a/c tr Nwly	62	1500 ft, 500m NE
	2141	light twin dep 35	64	
	2158	ditto	60	
11/1	0759	light a/c	57	2kms W, 3-4000 ft
	1410	ditto OB	70	overhead 1500 ft
12/1	0835	light a/c – 1000 ft	67	tr NNW along suburb edge
	0906	light a/c	60	
	1005	ditto	68	tr Nwly
	1034	helo at 2000ft	66	tr Wly about 1 km S
	1438	light a/c 1000 ft	69	tr Nwly. 300m SW
13/1	0831	light a/c 1500 feet	69	tr Nwly, overhead
	0910	ditto	64	ditto
	0957	light a/c, 2500 feet	64	ditto
	1115	ditto	65	ditto
14/1	0938	light a/c	64	tr Nwly, 200m SW

### Background

6/1	0500	Background noise	29	
	2105	background	42	
7/1	0205	background	28	
	0600	background	32	
	0900	n'bour's mower	60	mowing at 8m distance
	2222	background	38	
9/1	0520	background	30	
11/1	0735	background	36	
13/1	0530	background	30	
14/1	1930	cars	60-63	about 15m distant

### Note

- No readings have been made on the helicopter traffic originating from the Police and Peacekeeping complex on Majura Rd. The helicopters are particularly noisy and overfly residential areas transiting to the western side of Canberra. This activity does not appear to have been addressed in noise assessments in the Airport PDMP.

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