



Office of the General Manager

Our Reference: F2004/06485
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Received by Minister
09 JUL 2008
(Canberra Office)

4 July 2008

Department of Infrastructure, Transport, Regional Development and Local Government
GPO Box 594
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Attention: The Hon Anthony Albanese MP

Dear Mr Albanese

Towards a National Aviation Policy Statement: Issues Paper

Thank you for the opportunity to comment on the Issues Paper, titled "Towards a National Aviation Policy Statement." Council officers have reviewed the Paper and I would be pleased if you would consider the following comments when preparing a National Aviation Policy Statement.

Hornsby Shire is located 25 kms north of the Sydney CBD, with the Hawkesbury River forming its northern boundary. Of its 510 square kilometres, more than 65% is bushland. Major waterways include the Hawkesbury River, Berowra Creek and Marramarra Creek. The Shire includes major centres such as Hornsby, secondary centres such as Pennant Hills and Epping, villages, islands, river communities and a large rural district stretching from Dural to Wisemans Ferry. The 2005 estimated Shire population (ABS Census) was 157,204, with 25% aged 17 years and under, and almost 10% aged 70 years and over.

Council's vision, to create a 'living environment' may be particularly affected by three elements of the National Aviation Policy Statement, namely;

- * Aviation and climate change;
- * Aircraft noise; and
- * Use of private helicopters.

Aviation and Climate Change

Council has a strong history of leading its community by example to progress sustainability. In particular, it has been proactive in reducing, measuring and reporting on the greenhouse gas emissions of its assets and its community under the Cities for Climate Protection (CCP™) Program. In August 2007, in recognition of the threat of climate change and in anticipation of the national carbon trading scheme, Council provided in-principle support to investigate the concept of carbon neutral for its corporate emissions and a Carbon Neutral Feasibility Study is close to completion.

In light of its commitment to reducing its carbon footprint, Hornsby Council expects all levels of government and industry to strive to do the same. No particular industry should be looked at in isolation. The strong financial support of the Federal Government given to the aviation industry cannot be justified if alternative land-based means of transport such as rail and road are ignored, especially considering the capacity of these industries to make greater inroads in

fuel efficiency, their frequency of use and the inadequate provision of these services to many local communities, including parts of Hornsby Shire. The National Aviation Policy should be part of an integrated transport policy.

The aviation industry has a significant role to play regarding climate change. The Stern Review estimates that aviation emissions accounted for only 1.6 per cent of total global greenhouse gas emissions in 2005. In Australia, aviation emissions in 2004 were 10.9 Mt CO₂-e, or less than two per cent of total emissions. However, these estimates are misleading as they do not account for the impacts of non-CO₂ aviation emissions, nor do they include emissions from international flights, which makes up the majority of world air travel. A more accurate assessment of the Australian aviation sector's contribution to climate change may be in the vicinity of up to six per cent when non CO₂ emissions and the effects of radiative forcing are taken into account.¹

If the Australian aviation sector is allowed to continue to operate under business-as-usual conditions and Australia adopts a target of reducing emissions to 60 per cent below 2000 levels by the middle of this century, aviation could account for between 32 and 51 per cent of the total greenhouse gas allowance by 2050. The expansion of the aviation industry could become an impediment to reaching future emissions targets as set by the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol.² Therefore, it is crucial that the aviation industry makes a concerted effort to reduce its contribution to global climate change.

There are different measures available to reduce the aviation industry's contribution to climate change, namely;

- * offsets;
- * technological and alternative fuels; and
- * policy measures.

Offsets: In any carbon reduction strategy, offsets should only be employed as a last resort method of neutralising residual greenhouse gas emissions. Evaluating aviation offsets is particularly difficult to measure for the aviation industry due to the more potent greenhouse effect caused by air travel due to the burning of fuel at high altitude. Any offsets sold by air service providers should be calculated using an internationally accredited formula. Where possible the aviation industry should seek to reduce its greenhouse impact through technological advances, fuel efficiency and policy measures.

Technology and alternative fuels: The aviation industry has few immediate technological options for reducing its contribution to climate change. Even if technological solutions do emerge, it will take decades for them to be implemented.

There is currently no foreseeable alternative to kerosene-based fuels in the aviation industry. Kerosene is desirable because it provides the best combination of energy density, vapour pressure and combustion characteristics. Alternatives such as hydrogen, ethanol and biofuels all have negative functional and/or environmental characteristics, despite their frequent marketing as 'green' alternatives.

While developments in aircraft design, air traffic management and fuel efficiency are contributing to the reduction of greenhouse gas emissions, this is offset by the rapid growth in demand for air travel. Therefore, policy measures (rather than technological measures) may be the most effective immediate means available to reduce the aviation industry's contribution to climate change.³

Policy measures: Policy measures, such as emissions trading and the imposition of taxes and charges, that promote innovation, improve efficiencies and curtail the rapid growth in demand for air travel need to be a key focus of the National Aviation Policy.

Ideas put forward by the Australia Institute in its discussion paper, *A Flight Risk? Aviation and Climate Change in Australia* include:

- A \$30 flatrate greenhouse charge for all domestic flights, which would raise in excess of \$1 billion a year in revenue;
- Australia could encourage the International Civil Aviation Organisation (ICAO) to impose a mandatory non-CO2 aviation emission charge to complement an emissions trading scheme;
- Inclusion of the aviation sector in a Kyoto-style open emissions trading scheme integrated with trading schemes in other countries is one option available to the aviation sector. Such a scheme should incorporate emissions from international flights, which at present are excluded from the calculation of each nation's overall emissions.⁴

The first two measures are designed to restrain air travel by including the true environmental cost in the price of an air fare. However, there is no guarantee that this will result in reduce greenhouse gases via a lower demand for air travel, and may impose significant financial hardship on people relying on air travel for business and family holidays. Despite the difficulties and conjecture involved quantifying the unique impact of the aviation industry on climate change, Australia should recommend that international aviation is included in the binding targets for the second commitment period of the Kyoto Protocol in 2012.

In conclusion, technological and policy solutions both have a role to play in reducing the greenhouse gas emissions of the aviation industry. Market mechanisms such as emissions trading should be supplemented by long-term strategic planning for, and investment in, transport and telecommunications infrastructure to encourage the substitution of air travel with less emission-intensive alternatives.⁵

Aircraft Noise

Noise levels are increasing in today's society and are continuing to impinge on our work, recreation and personal lives. Aircraft noise has a deleterious impact on human health. Prolonged exposure to aircraft noise can result in problems such as chronic noise stress and hypertension.⁶

While Hornsby Shire is generally not exposed to high levels of aircraft noise, Council is concerned that the current emphasis on the Australian Noise Exposure Forecast (ANEF) standards currently used as a way of measuring the impact of noise to local communities is inadequate. There has been considerable criticism levelled at the use of Australian Standard 2021 (AS 2021), which incorporates the ANEF. AS 2021 was developed as a criterion for the acoustic insulation of buildings. It is important to note that the Senate Select Committee on Aircraft Noise in Sydney revealed that ANEF as never being intended to be used for the purpose of aircraft noise management.⁷ Despite this, ANEF has been the primary planning tool in managing aircraft noise for the past two decades.

The main problem with the ANEF contouring approach is their tendency to produce 'black and white' answers to land use planning issues.⁸ Such an approach takes no account of local circumstances. All local government areas are unique, and their residents will be impacted to varying degrees by aircraft noise. Some areas have more people who are sensitive to relatively low levels of noise, while other people will have a high tolerance of substantial aircraft noise. Aircraft noise disclosure standards must be improved to enable the ordinary

person to easily interpret the impact of aircraft noise on their lifestyle and make informed decisions based on that information. ANEF contours are limited in their capacity to convey this information to residents.

An alternative to the ANEF will need to disclose aircraft noise in a format more easily understandable so that a noise tolerant population can be achieved in high noise areas. This can be achieved in part by requiring all Australian airports to adopt the Person-Events Index (PEI) which been developed by the Department of Transport and Regional Services to summarise population noise exposure data sets. By computing the total number of instances where an individual is exposed to an aircraft noise over a given time period, decision-makers and community representatives are given an indication of the impact of the noise load, rather than looking at a total load of noise energy experienced in a certain locality.⁹ The ANEF standard should retain its role as a planning tool to ensure that homes within the contours are built according with appropriately to minimise aircraft noise intrusion. However, the PEI can assist in providing policymakers with information on how noise impacts change over time, so that planning standards can be adapted to reflect this change.

In conclusion, aircraft noise management can be improved by adopting the PEI and a flexible consultation framework to complement the existing ANEF standard.

Use of private helicopters

Council has in the past observed helicopter landings to private residences in the rural areas of the Shire. In response to complaints received from the public, Council sought legal advice regarding its ability to restrain the use of rural residential land for the take off and landing of a helicopter. The legal advice concluded that the landing of a helicopter on a site for non-commercial premises is ancillary to the functions associated with the dwelling-house on the land, and as such is unable to be regulated by Council. This raises concern for Council where the use of helicopters by the occupants of dwellings as a means of transport to and from their residential premises on the rural lands goes unregulated.

Accordingly, Council requests that the Development of a National Aviation Policy Statement include investigation into reviewing Civil Aviation Laws to set controls and limitations on the use of helicopters as a means of private transport to and from residential premises.

In conclusion, Council recommends that:

- the Federal Government adopt the National Aviation Policy as part of an integrated transport policy that includes long-term strategic planning for and investment in land-based transport and telecommunications infrastructure to encourage the substitution of short haul air travel with less emission-intensive alternatives;
- carbon offsetting be used only as a last resort to address residual carbon emissions that cannot reasonably be reduced;
- the Federal Government support advances in technology and fuel efficiency in both the aviation industry and land-based transport industries as part of an integrated approach to reducing Australia's greenhouse gas emissions;
- the Federal Government supports the inclusion of international aviation in the binding agreement for the second commitment period of the Kyoto Protocol;
- the National Aviation Policy establishes the mandatory use of the Person-Events Index (PEI) in conjunction to the ANEF standard;
- Civil Aviation Laws be reviewed to place controls over the private use of a helicopter associated with a dwelling-house.

I trust these comments will be of assistance in the development of a National Aviation Policy Statement.

Yours faithfully



GORDON TRUMAN
Acting General Manager

¹ Macintosh, A. and Downie, C. (2007) "A Flight Risk? Aviation and Climate Change in Australia". Discussion Paper 94, The Australia Institute. Available online at www.tai.org.au/documents/dp_fulltext/DP94.pdf (Accessed 13 June 2008).

² Note 1.

³ Note 1.

⁴ Note 1.

⁵ Note 1.

⁶ Issarayangyun, Tharit (2005). Aircraft noise and public health: acoustical measurement and social survey around Sydney (Kingsford-Smith) Airport. *Thesis submitted in fulfilment of the requirement of for the degree of Doctor of Philosophy*, School of Civil and Environmental Engineering, University of New South Wales.

⁷ Standards Australia, 7 November 2000 in The Senate Select Committee on Aircraft Noise at Sydney (1995) *Falling on Deaf Ears*, Report of the Senate Select Committee on aircraft noise in Sydney.

⁸ Department of Transport and Regional Services, Australian Government Discussion Paper: *Going Beyond Noise Contours*, October 2003. Available online at http://www.infrastructure.gov.au/aviation/environmental/transparent_noise/pdf/going_beyond_noise_contours.pdf (viewed 13 June 2008).

⁹ Department of Transport and Regional Services, Australian Government Discussion Paper: *Expanding Ways to Describe and Assess Aircraft Noise*, March 2000. Available online at http://www.infrastructure.gov.au/aviation/environmental/transparent_noise/expanding/pdf/sepb_discussion_paper.pdf (viewed 13 June 2008).