



In reply please quote 2008/04817/02
Enquiries to Mike Milln
Telephone 08 8204 8135

**OFFICE OF THE CHIEF
EXECUTIVE**

Roma Mitchell House
136 North Terrace
Adelaide SA 5000

PO Box 1
Walkerville SA 5081

Telephone: 08 8343 2222
Facsimile: 08 8204 8740

ABN 92 366 288 135

Mr John Doherty
Executive Director
Aviation and Airports Division
Department of Infrastructure, Transport, Regional Development
and Local Government
GPO Box 594
CANBERRA ACT 2601

Dear Mr Doherty,

***DISCUSSION PAPER: SAFEGUARDS FOR AIRPORTS AND THE
COMMUNITIES AROUND THEM***

Thank you for the opportunity to comment on the Australian Government's Discussion Paper on the safeguarding of airports and the communities surrounding them.

The following comments reflect the views of the South Australian Government agencies with interests in the issues. Please note that many of the issues raised in the discussion paper are contentious, require careful policy development and then the endorsement of appropriate Ministers. Much of that is yet to occur.

Consideration of the issues is ongoing at South Australian Government agency level. The Minister for Transport has approved policy recommendations about protection of Adelaide Airport for development with appropriate agencies, but policy decisions in this area have yet to be made. This response is therefore confined to a discussion of the issues raised in the Discussion Paper and existing practice in South Australia. It does not purport to advance policy positions.

Our response to the Australian Government's National Aviation Policy Green Paper noted that the South Australian *Planning Strategy for Metropolitan Adelaide* includes policies to protect Adelaide and Parafield Airports from inappropriate surrounding development, but that the policies are not given sufficient effect in some surrounding councils' development plans.

The South Australian Government currently provides policy direction to councils on the issue of building heights and has recently implemented the *Better Development Plan Program* (BDP). The aim of BDP is to streamline and simplify all council development plans in the State by setting up standard policy modules to which development plans are to be converted. The policy modules remove issues from development plans that are not development or planning related and are better dealt with through other means such as building regulations, referrals and licensing etc. This creates a more efficient development policy. A *Building Near Airfields* policy module has been created, which councils with airports in their jurisdictions are required to include when they convert their development plans under the BDP. A copy of the module is attached.

Metropolitan council development plans must be converted to BDP by June 2010 and non-metro by 2011. The *Building Near Airfields* module must be included in all development plans where it is appropriate due to airfield locations. The module provides principles of development control that address most of the issues raised in the Discussion Paper. While it was developed to apply generally to airports regardless of their differences in scale and type of operations, it can be amended to reflect particular circumstances and local detail during the conversion process through consultation with the Department of Planning and Local Government (DPLG). The Department for Transport, Energy and Infrastructure (DTEI) provides technical advice during that process. For instance, the application of AS2021-2000 to ANEF contours may be an appropriate response for high use jet airports like Adelaide Airport but it is less suitable to high-volume training circuits at Parafield Airport and not suitable at all to low-volume regional airports.

The following comments are made with the above background facts in mind.

Planning for compatible development

Adelaide Airport is surrounded by existing residential development. The development plans of surrounding councils variously address the issue of aircraft noise, but none has policies in place to prevent the increase of population density in noise affected areas. The City of West Torrens, which borders the Airport on all sides, has no effective policies to address aircraft noise, other than a requirement for dwellings and dwelling additions within the area encompassed by the Australian Government's Noise Insulation Program to be "designed, constructed and insulated" in accordance with AS2021. This area is defined by the ANEF 30 contour, within which AS2021 states that dwelling construction should not be considered. Otherwise, the Council's development plan contains a Principle of Development Control that "Development should be designed and located having regard to the flight paths, height restrictions and noise exposure forecasts issued by Adelaide Airport Ltd." This does not, in practice, prevent dwelling approval, or require acoustical insulation, in areas within ANEF contours prescribed according to AS2021.

Agencies of the South Australian Government are examining options to address this situation within the context of the 30-Year Plan for Greater Adelaide (the Plan) which will replace the Planning Strategy for Metropolitan Adelaide. The Plan includes objectives of maximising urban residential infill to accommodate population targets, which may not be compatible with airport safeguarding objectives. Given these circumstances, and the need to provide clear direction to the councils, we believe it is not helpful to suggest a full review of AS2021 as a planning guide for state and local governments.

Some changes may, however, be necessary, and the South Australian Environment Protection Authority (EPA) has noted that AS2021 Table 3.3, which is used in conjunction with other tables and specifically with Table 2.1 relating to ANEF levels, identifies indoor design sound levels for various building types and activities 5dB(A) above those recommended for sleeping areas by the World Health Organization in Table 1 of *World Health Organization Guideline Values for the critical health effects of community or environmental noise*. That said, AS2021 is clearly the only definitive land use planning standard applicable to large airports in existence. To suggest the comprehensive development of new standards may be a recipe for inaction.

This does not mean to suggest that better public understanding of aircraft noise is unnecessary, which could be achieved through better targeted dissemination of information about the location of properties within ANEF contours, flight paths, frequency of overflights and single-event noise contours etc. The EPA has suggested a number of ways that information to householders could be improved, including through council rates notices. Prospective purchasers should be alerted to potential noise pollution issues in general when conveyancing and title searches are performed prior to purchase. This might be achieved by providing each house with a specific ANEF number depending on its location within the contours, and graphical representation of the ANEF zones could be improved by the addition of a graduated colour with low opacity (so that base cartography may still be seen) to more effectively communicate the gradual attenuation of noise pollution over distance when viewed by the general public.

Similar issues apply to Edinburgh and Parafield Airports, but the differences in the scale and type of their operations may require different responses. While AS2021 and the ANEF system have been applied to residential development approvals surrounding them, Parafield in particular has been encroached on by residential development outside the requisite contours that nevertheless generates significant concerns about noise under the training circuits.

None of South Australia's regional airports presently accommodates jet operations, and a different approach altogether is required. There is sufficient flexibility within the Building Near Airfields BDPP policy module, for instance, to use AS2021's alternative approach of applying aircraft frequency and noise levels in the absence of ANEF contours to prospective building sites. DTEI provides appropriate advice on this to councils planning changes to their development plans but, in general, the lack of development and existing rural zoning around most of the airports result in few conflicts.

The Discussion Paper largely ignores the potential role the building code could play in addressing AS2021/ANEF acoustical insulation requirements by ensuring that future developments of all kinds within the requisite contours are constructed and sited according to that standard. We would therefore recommend that any future investigations into the application of ANEFs should include a review of building regulations.

One other issue that may need further investigation is the need for council development plans to consider the contribution of surrounding development to the creation of flood hazard. For instance, Adelaide Airport is a natural flood basin and the City of West Torrens has been building flood mitigation works around its perimeter with State and Australian Government funding assistance through the natural Disaster Mitigation Program. This suggests that the protection of airports must include consideration of risks created by natural hazards as well as man-made ones.

In summary, we can support the development, as suggested in the Discussion Paper, of an enhanced national framework for planning and development controls near airports, provided it takes account of the differences between them. We can also support the supplementation of the ANEF system with other tools for describing aircraft noise, but caution that the different but complimentary requirements for land use planning mechanisms and for better public information should not be confused.

Protection of operational airspace

The attached BDP module for *Planning Near Airfields* includes a Principle of Development Control that "The height and location of buildings and structures should not affect the long-term operational, safety and commercial aviation requirements of airfields." It also includes an optional reference to a building heights map, if the council's development plan includes one.

Schedule 8 of the State's *Development Regulations 2008* also requires councils to refer building applications to "DOTARS" for structures that will exceed the prescribed heights depicted in building heights maps.

The development plans of councils surrounding Adelaide and Parafield Airports include building heights maps so that referrals are triggered. These airports are, however, subject to the overriding provisions of the Commonwealth's *Airports (Protection of Airspace) Regulations 1996*, so this is largely redundant. It may also be confusing because the referral authority in the Commonwealth Regulations is the airport operating company. In our case it is Adelaide Airport Ltd rather than the Commonwealth Department.

It is nevertheless important that the requirement for referral of over-height structures remains in the State's Regulations. This ensures it is reflected in councils' development plans so councils and developers are aware of the requirement. The South Australian Department of Planning and Local Government is presently examining options to resolve the discrepancy between

the State and Federal Regulations in respect to the referral authority, but the South Australian Government is not prepared to include a private company in this role in its Regulations. This has complicated resolution of the issue, as has the need for the Regulations to apply to airports other than those captured by the *Airports (Protection of Airspace) Regulations 1996*.

The protection of regional airports is less robust. DTEI encourages regional councils that have airports within their jurisdictions, to include building heights maps in their development plans to trigger referrals, particularly when the airports are registered or certified by the Civil Aviation Safety Authority (CASA). The referral under Schedule 8 of the State's *Development Regulations 2008*, however, remains "DOTARS" which, of course, has no jurisdiction to act on any referral it receives.

Subpart 139.E of the *Civil Aviation Safety Regulations 1998* provides some protection by requiring the airport operator to monitor the airspace and to report proposals to CASA that would infringe defined airspace clearance surfaces (OLS and PANS-OPS). The outcome, however, may be that CASA will modify aircraft operating procedures to take account of a new structure, even though the structure may reduce the airport's efficiency, rather than using its powers under Regulation 95 of the *Civil Aviation Regulations 1988* to cause the removal or modification of the obstacle.

The 2008 audit of CASA by the International Civil Aviation Organisation (ICAO) noted this in its finding that:

"Approval of building developments in Australia is granted by the respective land use planning authorities, such as the State or local town Councils, in consultation with aerodrome authorities concerned. Proposed developments exceeding a height of 110 metres or likely to create an obstacle to aircraft operations near an aerodrome are required to be reported to CASA. However, CASA's safety advice may not be taken by the land use planning authorities and CASA is unable to prohibit any building developments which could create an obstacle to aircraft operations, except at Commonwealth-leased aerodromes covered under the Airports Act 1996."

This highlights the confusion caused by the different classes of airport being subject to different Commonwealth regulation and different referral authorities. It is correct that CASA may not prohibit an infringing development, and its power to cause the removal or modification of a development is unlikely to be exercised in the regional context because of the compensation requirements of CASA that it would trigger.

The issue is further confused because, if the council's development plan contains a building heights map, the nomination of "DOTARS" as the referral authority in Schedule 8 of the State's *Development Regulations 2008* actually bestows power on the Commonwealth Department to refuse an offending development proposal.

It should be noted that, while the definition of the OLS at regional airports is relatively straightforward, the definition of the PANS-OPS is not. The latter is technically complex and costly so that regional airports in South Australia do not presently have defined PANS-OPS and are unlikely to in the future.

It would seem sensible, as is the case under the *Airports (Protection of Airspace) Regulations 1996*, that the protection of these airports be extended to consideration of the effect of proposed developments "on the efficiency or regularity of existing or future air transport operations into or out of the airport", rather than being confined to the safety of aircraft operations as is presently the case. We suggest this could be accomplished through a change to CASR 139.370 to require CASA to provide a determination not only that a proposed development will constitute a hazard, but also an assessment, in consultation as necessary with Airservices Australia, of its effects on air transport operations at the airport were it to go ahead. This presupposes that CASA's determination under this regulation would be served on the airport operator as well as the development proponent and the approval authority, as is presently required. In most cases in South Australia the approval authority (the regional council) is also the airport operator, but there are exceptions.

State governments could then make their own arrangements with their regional airport operators and approval authorities, as they see fit, to ensure any degradation of regional airport efficiency caused by development proposals was sufficiently offset by the wider benefit of the proposals.

For its part, the South Australian Government should continue to include the referral requirement in its *Development Regulations 2008* to ensure it filters down to the development application level. The reconciliation between State and Commonwealth regulations of the referral authority should be a minor matter that can be effected in due course.

Turbulence and wind shear

The attached BDP module for *Planning Near Airfields* includes a Principle of Development Control that development in the vicinity of airports should not create a risk to public safety through air turbulence. It provides no guidance to councils about what policies might be necessary to achieve this outcome, and the technical difficulty of doing so is such that advice is probably impractical, other than on a case by case referral to experts.

Addressing technical issues like these in the planning system often requires the applicant to demonstrate, usually through technical studies, any impact a development may have on a particular issue. The planning system will also utilise referrals to expert bodies to provide guidance on a case by case basis. This would apply to the issue of turbulence and wind shear caused by a potential development.

We would support the creation of a consistent industry standard to remove this and other technical issues from the planning system. Failing that, guidance from

experts on what sort of structures and proximity to runways are likely to create unacceptable turbulence levels would be useful for planners and applicants.

Wildlife hazards

The attached BDP module for *Planning Near Airfields* includes a Principle of Development Control that development in the vicinity of airports should not create a risk to public safety by attracting birds. It provides basic policy advice that development likely to attract birds should not be located within three kilometres of an airport or, if it is, that it should incorporate bird control measures. DTEI provides consistent advice to councils through comments to this effect on planning documents, even if the council has not included this policy module in its development plan.

The South Australian Government also supports Adelaide Airport Ltd's efforts to work collaboratively with its tenants and surrounding councils to implement Wildlife Risk Management Zones with radii of three kilometres of Adelaide and Parafield Airports on a voluntary basis. There are, however, potential risks in relying on the goodwill of authorities to notify Adelaide Airport Ltd when a development does not require formal notification.

The South Australian *Development Act* identifies as development, the keeping of free-flying birds within defined areas, on airport building heights maps included in council development plans, and therefore requires an application for the activity to be lodged with the council. Ordinarily, in all other areas, no development approval would be required.

We note Regulation 96 of the *Civil Aviation Regulations 1988* provides CASA with powers to control the dumping of rubbish in the vicinity of airports. This Regulation does not apply to other activities that may attract wildlife, such as the development of watercourses, etc, or to the keeping of pigeons in the vicinity of airports. The latter, as described in the previous paragraph, may be captured by the South Australian *Development Act*.

There is a related issue of the need for fencing to prevent stock or wildlife such as kangaroos and camels encroaching on aircraft movement areas. This is normally confined to outer regional and remote aerodromes, and the South Australian Government is pleased that its participation in the Australian Government's Remote Aerodrome Safety Program is providing for necessary fencing at key aerodromes.

The South Australian Government would be keen to participate in the development of national guidelines on these issues, and to discuss options to expand the scope of the *Civil Aviation Safety Regulations 1998* to prevent activities near airports that would create hazards through the attraction of wildlife. We note that CASR 139.095 (k) *Bird and animal hazard management* requires an airport operator to include in its Aerodrome Manual particulars of procedures to deal with dangers to aircraft operations caused by the presence of birds or animals on or *near* the aerodrome and, in particular, arrangements for the removal of any bird or animal hazard. It is clearly outside the powers of

an airport operator to require the removal of such hazards when they are not on airport property, emphasizing the need to ensure the safety regulator has such powers.

Wind Turbines

DPLG has issued a guide for applicants under the *Development Act 1993*, requiring wind farm proponents to contact CASA for guidance if the turbines are within 15 kilometres of an airport, or exceed 110 metres in height. This is consistent with the requirements of CASA's *CAAP89W-2(0)*. DPLG has also issued a *Planning Bulletin – Wind Farms*, which includes a policy objective that a wind farm “does not impact on the safety of aircraft and the operation of airfields and designated landing strips”.

The South Australian Government would be keen to participate in the development of consistent planning protocols to ensure all proposals for wind turbines or other tall structures do not impose hazards to aircraft. We would support consideration of a requirement for mandatory referrals to receive expert advice on the issue and suggest such technical issues are best dealt with outside the planning system.

It is not realistic to assume all regional or general aviation airport operators or local and State Government authorities are qualified to assess the hazards and act on them, so this presupposes the existence of a sufficiently resourced referral authority with the necessary skills and regulatory powers.

Technical facilities

The attached BDP module for *Planning Near Airfields* includes a Principle of Development Control that development in the vicinity of airports should not create a risk to public safety through materials that affect aircraft navigational aids.

The module provides no guidance about what sorts of materials or developments might cause such interference, and we suggest this is another technical issue best dealt with outside the planning system.

Further, without details of what constitutes a technical facility, it is not possible to assess whether such structures would constitute development or not under the South Australian *Development Act* and Regulations. We suggest the technical aspects of navigational interference might be dealt with instead through the licensing of certain uses. Investigation into legislation such as the *Radiocommunications Act 1992* could be undertaken to determine whether the provision of licences could address the inappropriate location of technical facilities.

Lighting and pilot distractions

The attached BDP module for *Planning Near Airfields* includes a Principle of Development Control that development in the vicinity of airports should not create a risk to public safety through lighting glare, and lighting within six kilometres of an airport should be designed so it does not pose a hazard to aircraft operations.

This is consistent with the requirements of CASA's *Manual of Standards (MOS) Part 139* Section 9.1.3; and Section 9.21 provides detailed advice to lighting designers. Regulation 94 of the *Civil Aviation Regulations 1988* then provides CASA with the powers to cause hazardous lighting contravening the standards to be modified or removed.

It should be noted the South Australian planning system, and the BDP module, can only address those cases that are defined as development. The construction of roads and railways, etc are exempt from consideration as development and need to be dealt with through other means such as expert referrals. The current system in place works adequately in this area but we would be happy to discuss the issue further with DITRD LG if necessary.

Public safety zones (PSZs) and third party risk

The South Australian Government notes the wide variance in the practices of jurisdictions that have introduced public safety zones associated with airport runways. We also note the Queensland Government, the only Australian jurisdiction requiring the implementation of PSZs at certain of its airports, has done so on the basis of a zone of fixed dimension according to individual risk in the order of 1 in 10,000, but regardless of the specific statistical risk associated with the airport or each runway within an airport.

We suggest if PSZs are to be considered for national implementation, they should be based on individual risk profiles of each runway end at airports where it is agreed they are necessary. Given the possible impacts of this at airports like Adelaide where there is a large amount of existing development and proposed in-fill development, the need for the zones, their dimensions and the restrictions they would impose would need very careful consideration.

The fact that the Commonwealth's airports, other than in Queensland, have operated without PSZs for so long, also suggests this is a policy requiring careful and measured consideration and close consultation with State and local governments, and the community.

The South Australian Government is prepared to participate in that consideration, but we suggest it is incumbent on the Commonwealth to provide further justification for the policy, the risk levels chosen to define possible zones and the dimensions of the zones at the major airports, as a basis for further discussion.

We look forward to the opportunity for further comment on and participation in policy development for the protection of airports.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Rod Hook", written in a cursive style.

Rod Hook
ACTING CHIEF EXECUTIVE

29 July 2009

Building near Airfields

OBJECTIVES

- 1 Development that ensures the long-term operational, safety and commercial aviation requirements of airfields (airports, airstrips and helicopter landing sites) continue to be met.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 The height and location of buildings and structures should not adversely affect the long-term operational, safety and commercial aviation requirements of airfields.
- 2 *(Optional – use only if there are any Overlay Maps – Development Constraints that show Airport Building Heights or where a Concept Plan Map – Airport Building Heights exists)* Buildings and structures that exceed the airport building heights as shown on the *Overlay Maps - Development Constraints or Concept Plan Map X/X - Airport Building Heights* and that penetrate the obstacle limitation surfaces (OLS) *(Optional text ‘and that penetrate the obstacle limitation surfaces (OLS)’ to be use only where it exists)* should not be developed unless a safety analysis determines that the building/structure does not pose a hazard to aircraft operations.
- 3 Development in the vicinity of airfields should not create a risk to public safety, in particular through any of the following:
 - (a) lighting glare
 - (b) smoke
 - (c) air turbulence
 - (d) storage of flammable liquids
 - (e) attraction of birds
 - (f) materials that affect aircraft navigational aids.
- 4 Lighting within 6 kilometres of an airport should be designed so that it does not pose a hazard to aircraft operations.
- 5 Development that is likely to increase the attraction of birds should not be located within three kilometres of an airport used by commercial aircraft. If located closer than three kilometres the facility should incorporate bird control measures to minimise the risk of bird strikes to aircraft.
- 6 *(Optional – use only if Overlay Maps - Airport Noise Separation Distances do not exist)* Dwellings should not be located within areas affected by airport noise.
- 7 *(Optional – use only if Overlay Maps - Development Constraints showing Airport Noise Separation Distances exist or a Concept Plan Map - Airport Noise Separation Distances exist)* Dwellings should not be located within the core noise affected area as shown on *Overlay Maps - Development Constraints or Concept Plan Map X/X - Airport Noise Separation Distances*. Residential development should not be located in the secondary noise affected area shown on the map unless the building incorporates appropriate noise attenuation measures.
- 8 Development within areas affected by aircraft noise should be consistent with Australian Standard AS2021 - Acoustics - Aircraft Noise Intrusion - Building Siting and Construction.