



ACT Government Agencies' Submission

SAFEGUARDS FOR AIRPORTS AND THE COMMUNITIES AROUND THEM

Discussion Paper

July 2009

1. Canberra International Airport and its Context

Canberra International Airport is situated to the east of central Canberra, between Lake Burley Griffin and the Kowen plateau. It is located within land that is zoned Non-Urban (Broadacre) under the Territory Plan. The Broadacre zone provides for land uses that require a large land area or are unsuitable for an urban setting. Examples include a racecourse, cemetery, scientific research institution, Defence land, agricultural uses and the like.

The airport is surrounded on three sides by National land in operation by the Department of Defence (the Majura Military Training Area). Because of this, the ACT Planning and Land Authority (ACTPLA) do not receive a significant number of Development Applications for proposals proximate to the airport.

The ACT has no planning control over National land¹, however, areas that are in close proximity to the airport include Pialligo to the west and Fyshwick to the south-west. In addition, the ACT Government is examining the potential for an employment corridor in the east of the city and this may bring employment development closer to the airport in the future. This project is examined further in this submission.

2. Current Strategic Policy Framework for Safeguarding Airports

In the ACT, statements for safeguarding Canberra International Airport exist in *The Canberra Spatial Plan (2004)* which is a strategic policy to manage growth and change in the Territory over the next 30 years. The Plan recognises Canberra International Airport as critical infrastructure for the Canberra region as well as an employment node within the ACT.

A key initiative under the plan is an Aircraft Noise Protection Corridor (Map 11- Clearance Zones) identifying areas within the ACT that are significantly affected by aircraft noise (the Majura and Jerrabomberra Valleys). The Plan states that the Territory will not locate any residential development within these areas where residents would be adversely impacted by airport noise (based on the 20 ANEF standard). Instead, the Plan states that these areas may be suitable for land uses that are not adversely affected by aircraft noise, such as industrial, transport, tourism and recreation uses.

A significant study has recently been completed by ACTPLA – *The Eastern Broadacre Planning Study (2009)* investigating the potential for an employment corridor in the east of the city. This study envisages that employment uses in the corridor, together with improved transportation systems, would support the growing role of the airport as a transport hub and economic generator in the region.

One of the actions under *The Canberra Spatial Plan* was to enter into detailed discussions with NSW to develop a Regional Management Framework to ensure

¹ The National Capital Authority is the planning authority responsible for National land. The National Capital Plan, administered by the National Capital Authority cites the relevant Commonwealth Department and Canberra International Airport as having the requirements for protected airspace. However the Plan itself contains no planning provisions or guidelines on the matter.

airport operations are not limited by residential development in areas that are likely to be adversely impacted by aircraft noise. Unfortunately, despite the formal endorsement of such a Framework² and an accompanying Memorandum of Understanding for Cross Border Region Settlement in 2006, residential settlement under aircraft flight paths has been endorsed in the adjoining jurisdiction of NSW (Queanbeyan).

The ACT Government continues to oppose residential development at Tralee, Environa and the Poplars in the Queanbeyan City Council area. Such development represents a poor planning outcome for lands in the ACT (particularly the adjacent Hume industrial estate and airport) and for the future residents of these areas.

3. Regulation of Development (Development Application Assessment)

At a regulatory level, the ACT Territory Plan and associated Codes do not contain any specific provisions concerning the potential impacts of developments on the airport. They do not cite regulatory requirements addressing the protection of operational airspace, wildlife impacts, turbulence and wind shear, technical facilities, lighting and other matters addressed in the Discussion Paper. However, Section 120 of the *Planning & Development Act 2007* requires that ACTPLA, when considering Development Applications within the Merit Track, consider the following.

- (a) the objectives for the zone in which the development is proposed to take place;*
- (b) the suitability of the land where the development is proposed to take place for a development of the kind proposed;*
- (c) each representation received by the authority in relation to the application that has not been withdrawn;*
- (d) if an entity gave advice on the application in accordance with section 149 (Requirement to give advice in relation to development applications)—the entity's advice;*
- (e) if the proposed development relates to land that is public land—the plan of management for the land;*
- (f) the probable impact of the proposed development, including the nature, extent and significance of probable environmental impacts.*

On occasion these matters are considered in relation to particular proposals. If a Development Application was in the Impact Track then many of the matters identified could be included within the Environmental Impact Statement Scoping Document.

4. Comments on Discussion Paper Part A: Safeguards for Operations at Airports

The ACT supports the establishment of a more effective planning regime, both on and off airport sites, to ensure the effective use and safety of airports. However, clear guidance is required on matters such as airspace protection (e.g. building height), materials, lighting and particular land uses that may affect airport operations. Any guidelines or regulations developed would need to be non-technical, easily

² Endorsed by the Commonwealth, NSW and ACT Governments

comprehended by the public and developers, and suitable for incorporation in relevant planning documents.

It is also important that any regulations developed for off-airport lands also apply on-airport. The ACT Government, in its submission to the Green Paper supported the prohibition on airport land of land uses such as residential, aged care, community care and public child care facilities, hospitals and schools that are incompatible with the operation of an airport.

In this regard, the concept of Public Safety Zones described on page 2 of the Discussion Paper would arguably apply to on-airports as much as it would off-airport areas. Yet the table on Page 5 discusses the need to work with planning authorities to devise land use guidelines (presumably for off-airport areas).

Likewise, on page 6, it is stated that '*It is essential that airports are protected from off-airport development that could undermine their safety or operational efficiency*'. Again, this statement would equally apply to the development of airports themselves, especially with the growth of high patronage non-aeronautical uses close to runway ends in the past ten years.

5. Comments on Discussion Paper Part B: Issues and Options for Safeguards

Planning for compatible development

In terms of strategies for assessing and managing aircraft noise, ACT Government agencies support many of the initiatives described on page 7 of the Discussion Paper, including the use of comprehensive noise information in addition to the ANEF; ensuring that the protection of airports is an objective of planning; developing stronger arrangements for the protection of corridors under flight paths by avoiding residential and other noise-sensitive developments in these locations; and considering special arrangements for consultation with the Commonwealth government on proposed developments around airports.

As discussed earlier, *The Canberra Spatial Plan* is a sound example of a strategic planning policy that explicitly seeks to protect Canberra Airport, and to deliver this objective through the Noise Protection Corridor.

Regarding consultation with the Commonwealth on proposed developments, given the technical issues involved in assessing impacts on aviation infrastructure³ it may be appropriate to establish a referral process to the Commonwealth to provide necessary input. However, this process should not unreasonably delay or complicate the planning process.

Alternatively, or in addition to a referral process, clear guidelines or regulations could be developed by the Commonwealth on development requirements around airports. These should be prepared in consultation with the States, Territories and local government and be suitable for incorporation in planning documents.

³ Such as the protection of operational airspace, turbulence and wind shear described on pages 8 to 10 of the Discussion Paper.

The use of an ANEF to ensure noise sensitive uses are not located under airport noise corridors has been effective in the ACT as the 20 ANEF has been consistently applied as a control on the location of residential development. However, in NSW decisions have been made to locate residential and other sensitive development in areas above the 20 ANEF level, and to rely on insulation to attenuate noise impacts. This suggests consideration could be given to more conservative criteria for noise-sensitive developments under flight paths, particularly in relation to the development of greenfield sites.

ACT agencies consider that there is merit in reviewing AS2021 to ensure that it adequately addresses the overall community amenity objectives which planning seeks to achieve.

The ANEF should be retained as an effective land use planning tool, however, for conveying information to the community about areas affected by aircraft noise, indices such as the N70 (the number of aircraft movements that produce noise levels of 70 decibels or more at a particular point) may be more effective, as people can associate these indices with noise from other sources, such as trains, trucks, machinery, traffic and the like. Showing flight paths can also be a very useful tool, and this is now practiced at most, if not all, major airports around Australia.

It is also worth noting here that some airports, including Canberra Airport, have a preference for using single event noise footprints for particular aircraft types to purportedly show areas which should be kept free from noise-sensitive developments. This ignores the frequency of events, and it is very clear from research around the world that the frequency of events coupled with the noise level is a far better predictor of people's reaction to aircraft noise than a single event representation.

The discussion paper notes that "the ANEF system does not capture areas under very busy flight paths used by light aircraft, such as training circuits, which can be more annoying to some individuals than a small number of loud noise events". While the ANEF contours show the noise index values quite well, it appears that people's response to low flying light aircraft on training circuits is different to their response to the 'normal' approach and departure movements for various categories of aircraft.

The discussion paper notes that "aircraft noise does not stop at a contour line on a map". This is true and the point should be made that the lower the ANEF contour is, the broader should its representation be on any map.

The Discussion Paper (page 8) raises a question as to whether, for developments around the major capital city and freight airports, the state government should refer residential development within a defined buffer zone to the Commonwealth Transport Minister or Secretary for approval. It is suggested that it could be difficult to devise such a buffer as the issue of community exposure and reaction to aircraft noise is not confined to areas inside a defined area.

For instance, the South Jerrabomberra lands in Queanbeyan are at some distance from Canberra International Airport so are not affected by on-airport noise and disturbance but lie under the north-south airport flight paths. However, in respect of

this settlement proposal, referral to the Commonwealth would have been entirely appropriate since the Commonwealth is not only the owner of the Federally leased airports but also the regulator of airport operations.

Protection of Operational Airspace

The Discussion Paper addresses the protection of operational airspace from the impacts of both buildings and vegetation. However, planning authorities may not have any direct control over vegetation around airports (unless landscaping is proposed as part of a Development Application).

Pages eight (8) and nine (9) of the Discussion Paper address various measures to protect airspace such as the Obstacle Limitation Surface (OLS) and Procedures for Air Navigation Systems Operations (PANS-OPS). It is suggested that these concepts are not well understood by planning authorities, although it is likely these matters would be addressed for particular proposals such as those requiring an Environmental Impact Statement. In addition, it is not common for referrals to be made to the Department of Infrastructure, Transport, Regional Development and Local Govt, Air Services Australia or CASA as these are not mandatory referral bodies in the development assessment process.

Height limitations via the obstruction limitation surface (OLS) could be included as overlays in relevant planning legislation in all jurisdictions. The Commonwealth could work with States, Territories and Local Government to prepare planning provisions for the protection of operational airspace suitable for incorporation in existing statutory documents. However, any controls must not unduly add to the processing times for development applications, nor create unreasonable cost implications associated with any technical reports, modelling or risk assessment required to test compliance with the control.

Turbulence and Wind Shear

Page 10 of the Discussion Paper relates to establishing effective protocols for the assessment and possible mitigation of turbulence and wind shear potentially arising from new development in close proximity to runways. This is a technical matter that planning authorities would need further guidance on in relation to off-airport development.

Generally, meteorological phenomena are more likely to present severe difficulties for aircraft on approach and departure from airports, but there have been reports of localised effects at airports, including Canberra Airport.

A standard across all States and Territories would be appropriate, with assessment on a 'case by case' basis, with endorsement by CASA as a probable requirement. Expert reports may be a useful addition. If introduced, the proponent of a development which might result in turbulence problems affecting aircraft operations should cover the costs.

Wildlife Hazards

Page 11 of the Discussion Paper deals with wildlife hazards and specifically the adequacy of existing land use provisions for the management of bird strike, including

bats. This is a relevant issue for the ACT as there are major areas of bird habitat proximate to Canberra International Airport, particularly to its east (at Newline Quarry) and west (Jerrabomberra Wetlands). As the airport is located within a non-urban corridor within the ACT, there are also other uses likely to attract wildlife, including quarries (e.g. Mugga Quarry), a land fill site, several materials and waste recycling facilities, nature reserves and agricultural lands.

The preparation of national guidelines for how strategic planning and development assessment processes can manage wildlife activity in the vicinity of airports is supported. However, these should be prepared in consultation with States, Territories and local government and should allow for individual adaptation to suit the circumstances of each individual airport/ local environment. Such guidelines would also need to be balanced against other considerations such as extant ecological areas and best practice water conservation practices including water sensitive urban design (which may promote water features and on-site detention systems).

As noted above there are no specific provisions for the assessment of wildlife hazard in statutory planning controls (e.g. Territory Plan and Codes). However, greater awareness of this issue could lead to it being addressed in consideration of Development Applications in the Merit Track, pursuant to Section 120 of the *Planning & Development Act 2007*. Guidelines issued by the Commonwealth could assist here. If the proposal was in the Impact Track then this could be a matter included within the Environmental Impact Statement Scoping Document.

Wind turbines

This is not a significant issue for the ACT as there are no wind farms located within the ACT and the Territory does not generally provide favourable conditions for harnessing this type of renewable energy. However, a solar farm proposal is currently being investigated for the ACT.

These facilities are, or should be, subject to relevant air navigation regulations in terms of hazard lighting and otherwise should be subject to obstruction limitation surface (OLS) requirements.

Technical facilities

This issue relates to the effectiveness of existing planning controls to minimise the impact of new developments on radar and navigational systems. It relates to telecommunications, broadcasting and other radiating equipment that can cause interference to airport operations. It suggests planning authorities might establish procedures to prevent hazardous encroachment to aerodromes. However, as with other technical items addressed in the Discussion Paper (namely protection of operational airspace and turbulence and wind shear) planning authorities require substantial technical guidance on this issue.

Guidelines or regulations could be prepared by the Commonwealth, in consultation with State, Territory and local governments. At a minimum, a list of developments with the potential for interference with airports could be published. This information would be useful in planning for the Eastern Broadacre area (around Canberra Airport) as it is possible that future uses in this area could include high technology,

science/ research and development, communications, transport and emerging innovative industries.

Lighting and pilot distractions

This issue addresses the adequacy of existing laws to restrict the use of lasers, high intensity lighting and other potential pilot distractions in the vicinity of airports. It should be noted that some lighting issues (e.g. use of lasers, lighting of railways) may not be the responsibility of local planning authorities but rather, of other regulatory agencies.

As noted above there are no specific provisions for the assessment of lighting and pilot distractions in statutory planning controls (e.g. Territory Plan and Codes). However, greater awareness of this issue could lead to it being addressed in consideration of Development Applications in the Merit Track, pursuant to Section 120 of the *Planning & Development Act 2007*. Again, guidelines issued by the Commonwealth could assist here.

Roads ACT liaise regularly with Canberra Airport on lighting on roads in the vicinity of the airport, including Glenora Drive, Pialligo Avenue, Majura Road and the future Majura Parkway.

Public safety zones and third party risk

The Discussion Paper suggests working with planning authorities to identify zones adjacent to the end of a runway where special considerations might be applied to new developments to maximise safety. This initiative is supported, however, must take account of the unique circumstances of each individual airport and its surrounds, and must apply the same restrictions on-airport as apply off-airport. That is, where restrictions apply to certain development types off-airport, the same should apply to on-airport land.

Keeping areas some distance from the ends of runways clear of significant structures and inappropriate land use activities is a desirable objective. In terms of the method to be used to assess the suitability of such zones, this should be guided by advice from CASA, with any decisions to be subject to considerations of land use planning for the areas affected.

6. Other Comments

The following comments are offered in relation to the table on page 4 - Summary of possible elements of a safeguarding framework.

- Under 'Planning for Compatible Development' the options should also apply to on-airport sites.
- Under 'Protection of Operational Airspace' it should be noted that vegetation around airports and wildlife hazards may not necessarily be issues that planning authorities have any control over (unless these issues form part of a development application).
- Under 'Wildlife Hazards' the acronyms ATSB and ICAO should be explained and under 'Technical Facilities' the acronym ACMA should be explained.

- Under 'Lighting and Pilot Distractions' the use of planning documents to specify formal requirements may not be appropriate in some instances e.g. governing the use of lasers, as this may not be a planning issue.
- Under 'Public Safety Zones' it states that the Commonwealth will work with planning authorities (presumably local jurisdictions) to prepare land use guidelines for high risk areas close to runway ends. However, this should equally apply to the airport lands.

7.0 Conclusion

Within the ACT, policy directions, land use zoning and the Development Application assessment process provide mechanisms to safeguard the operational and safety aspects of Canberra International Airport. However, there is not a detailed understanding within the development industry and approval authorities, of the technical standards and requirements for safeguarding airports and the areas around them.

These requirements could be promoted to relevant stakeholders and developed into guidelines or regulations capable of being incorporated into existing statutory and strategic planning processes. In the ACT, knowledge of airport interface issues will assume greater importance as Canberra grows and the areas around the airport are considered for future employment purposes.