

Principles for a national land use planning regime near airports, military airfields and flight paths

Introduction

Airports are important national infrastructure assets. They are essential transport hubs and contribute significantly to the national economy, as well as to the economies of the cities, regions, states and territories where they are located. Military airfields support critical pilot training for the Australian Defence Force and act as a staging base for military operations.

The operations and flying activities associated with Australia's airports and military airfields can have significant effects on communities nearby. Noise impacts can cause disturbance for nearby residents and the need for a safe operational environment can impose constraints on developments near airports.

Sites for airports and military airfields are scarce and finding new land to replace or expand existing airports and military airfields is difficult. Existing sites in many cases pre-dated significant urban development. More recently, urban expansion and densification has increased tensions between residential and industrial development and airport operations. Population growth, development demands and increased aviation activity will combine in most cities to make complementary planning more difficult and therefore more important. The main challenge is to balance the needs of airports and the aviation industry to meet growing demand with urban growth pressures around airports.

The following *Principles for a national land use planning regime near airports and flight paths* (the Principles) are designed to give effect to the initiatives in the Australian Government's December 2009 Aviation White Paper for developing a national framework to safeguard both communities and airports from inappropriate off-airport developments.

The Principles recognise that responsibility for land use planning rests primarily with state, territory and local governments, but that a national approach can assist in improving planning outcomes near airports and under flight paths. This will require land use planning agencies at both state and local level to work with the airport operator and relevant Commonwealth agencies to achieve a satisfactory outcome for both communities and continuing airport operations.

The proposed national framework is intended to provide guidance to state and territory governments which can in turn be used to guide local governments in assessing land uses and developments around identified airports.

Principles

1. Identifying strategically important airports

As a first step it is important to identify the roles that various airports play within their cities, regions and states for economic, transport or social reasons or, in the case of military airfields, for national security purposes.

The Commonwealth has identified 19 airports¹ of national importance under Part 12 of *the Airports Act 1996* as airports subject to Commonwealth planning control. These airports are required to prepare 20 year Master Plans, updated every five years. Recent amendments to the Airports Act have established additional requirements for these airports to recognise state and territory planning frameworks and to take account of off-airport issues, such as land transport access. These airports also benefit from some protection of operational airspace through the Airports (Protection of Airspace) Regulations 1996 which protect the safety, efficiency and regularity of aviation operations in the vicinity of the airports.

The Commonwealth sees benefit in ensuring that the particular considerations that arise in relation to airport operations are recognised in planning around these airports under a national land use planning regime. These considerations include protection of existing aircraft flight corridors through complementary land use planning that does not expose new residents to unacceptable levels of aircraft noise. Inappropriate development can not only lead to disturbance for residents, but for future calls for airport curfews or operational constraints.

Airports vary widely in usage, from major international passenger airports, to major domestic and commuter airports, through to training and general aviation airports, where both on and off-airport planning requirements vary considerably.

Operators of identified airports are expected to lead the preparation of planning documents that identify the airport's strategic role and its operational plans and environmental impacts, as well as the airport's context within the region's planning regime. This should not be done in isolation, but in consultation with state and local government planning agencies. This recognises the need for better integration of airport planning with broader regional planning. It is recognised that, while operators of major airports can be expected to have the capacity to drive airport planning and the associated consultation processes, operators of smaller airports may require some assistance from all levels of government to achieve comparable outcomes.

¹ The 19 airports subject to the planning provisions of the Commonwealth *Airports Act 1996* are Sydney (Kingsford Smith), Bankstown and Camden (NSW); Melbourne, Essendon and Moorabbin (Vic); Brisbane, Gold Coast, Townsville and Archerfield (Qld); Adelaide and Parafield (SA); Perth and Jandakot (WA); Hobart and Launceston (Tas); Canberra (ACT); and Darwin and Alice Springs (NT).

The Commonwealth has also identified military-owned airfields that should be safeguarded. Due to the unique nature of military flying, training and operations, the safeguarding needs of military airfields may differ from those of civil airports. Some of these military airfields are also used by civil operators under joint-user or licensing arrangements.

It is important for governments at all levels to work together to identify airports which they consider to be strategically important, to identify the airports' long-term role in their city, region and state, and to consider an appropriate approach to planning and safeguarding at those airports.

2. Managing the impacts of aircraft noise

There is substantial evidence available through organisations including the World Health Organization (WHO) and the International Civil Aviation Organization (ICAO) detailing the effects of aircraft noise on sleep, health and cognitive performance. According to ICAO, aircraft noise is the most significant cause of adverse community reaction to the operation and growth of airports.

The Australian Noise Exposure Forecast (ANEF) system provides a well established metric for land use planning around airports and should continue to play an important role. Most jurisdictions recognise the ANEF system and incorporate it into land use planning decisions. However, experience has shown that there are limitations to the ANEF system in identifying impacts on communities in many circumstances. The ANEF is particularly limited in its application to smaller airports and under training circuit flight paths.

Use of the ANEF system exclusively has also led to misunderstanding that aircraft noise 'stops' at the 20 ANEF boundary, even though most noise complaints come from outside the 20 ANEF. The ANEF is also relatively insensitive to measurement of night time noise, where a relatively small number of moderately noisy events can cause disruption to sleep.

Additional measures of aircraft noise, such as frequency of noise event contours based on decibels (e.g. N70s, N65s and N60s); single event contours based on decibels and flight path location and activity diagrams can be used to supplement the ANEF system in providing planning guidance for noise sensitive developments near airports and flight paths, as well as for scrutiny of rezoning proposals for industrial and rural lands exposed to, or likely to be exposed to, aircraft noise.

These measures are not easily applied in an algorithmic way and so are best applied at the strategic planning level by state and territory governments, rather than by local governments assessing development applications. The Commonwealth would see these measures as sensible additions to best practice major city planning to avoid zoning of residential or other noise-sensitive developments in corridors under flight paths.

Incorporation of *AS2021-2000 Acoustics – Aircraft noise intrusion – Building siting and construction* within state planning systems has assisted in identifying where residential

development is not considered to be acceptable in the vicinity of airports. It has also assisted in ensuring that the effects of aircraft noise are mitigated in new or modified buildings or in the redevelopment of those areas. Effective mechanisms to ensure compliance with AS2021 in new buildings within relevant ANEF contours is essential to ensure some level of mitigation of aircraft noise where building is approved in these areas. It is recognised however, that noise insulation is rarely an ideal solution, as it cannot apply to outdoor areas, and requires windows to remain closed and use of energy-intensive air conditioning.

Improved public information is a critical aspect of managing aircraft noise. While recognising there are some limitations on the use of additional noise metrics to guide land use planning decisions, limitations should not be imposed on information provided for public disclosure to existing and prospective residents of areas which may be exposed to aircraft noise. The ANEF system is not designed for this purpose – attempts to use the ANEF for noise disclosure are likely to be unhelpful. It is important that airports and all governments at all levels encourage comprehensive and innovative approaches to provision of aircraft noise information to communities.

3. *Protecting airspace around airports and military airfields*

A nationally consistent land use planning framework to protect airspace around airports and military airfields is in the interests of both aviation and public safety. Harmonisation, as far as practicable, between state and territory land use planning regimes and Commonwealth airspace protection legislation will help enhance aviation and community safety; raise awareness of, and compliance with, Commonwealth and state/territory requirements within local government; provide greater certainty and clarity for proponents and local governments in dealing with development proposals; and reduce unnecessary delays in development processes.

At the Commonwealth level, airspace protection provisions exist in the following legislation:

- (a) the Airports (Protection of Airspace) Regulations 1996² establish a system for the protection of airspace around the leased federal airports in the interests of the safety, efficiency and regularity of existing or future air transport operations into and out of airports;
- (b) the Defence (Area Control) Regulations 1989 protect airspace around the identified Defence airfields; and
- (c) Part 139 of the Civil Aviation Safety Regulations 1998³ requires airport operators to monitor the airport and land in their vicinity for structures and activities that may infringe protected airspace.

² The *Airports (Protection of Airspace) Regulations 1996* are made under the *Airports Act 1996*. The Act and Regulations are administered by the Commonwealth Department of Infrastructure and Transport.

³ The *Civil Aviation Safety Regulations 1998* are made under the *Civil Aviation Safety Act 1998*. The Civil Aviation Safety Authority administers the Act and Regulations.

States and territories can adopt a range of approaches for the protection of smaller airports and civil airfields that reinforce these provisions by improving developers' and planners' knowledge of them. Ideally, state and territory planning regulations would formally reference Commonwealth requirements. The Commonwealth can also assist by widely distributing information about the regulatory provisions to planners and the development community.

It is also important to ensure airspace protection at regional and general aviation airports that are not covered by Commonwealth airspace protection legislation. This can be implemented by State and territory law or through state planning policies.

The Commonwealth will undertake a detailed examination with the states and territories of the implications of and arrangements for the identification of risk-based Public Safety Zones (PSZs) near the end of runways.

Identified risk-based Public Safety Zones near the end of runways would assist in assessing proposals where new or extended runways are planned, or where new residential or commercial developments or increased population density is proposed in the vicinity of airports. Airport operators should work with relevant jurisdictions to identify zones and appropriate risk assessment where such new developments are proposed.

Guidance material is to be developed and maintained by the Commonwealth in collaboration with states and territories and local government on other aspects of development which could affect the safety and efficiency of aviation operations, including:

- (a) windshear and mechanical turbulence effects of new constructions on or near airports;
- (b) bird and other wildlife hazards to aviation from off-airport wildlife attractants;
- (c) wind turbine developments, with regard to the potential for electromagnetic interference as well as the potential for physical obstruction of aircraft;
- (d) structures and certain activities that may affect the integrity of aviation safety infrastructures such as navigation aids and radar;
- (e) high intensity lighting, lasers and other similar potential visual distractions to pilots near airports; and
- (f) structures such as high tension power lines, transmission towers and gas fired power stations that may affect aircraft safety.

States and territories, as well as Commonwealth agencies, will aim to ensure that this material is recognised in local government arrangements and is drawn to the attention of prospective developers and decision- makers.