

**SAFEGUARDS FOR AIRPORTS AND THE
COMMUNITIES AROUND THEM**



**QANTAS GROUP SUBMISSION
July 2009**

Planning for compatible development

1. *Does the ANEF system provide an effective basis for planning in noise affected areas?*

While the ANEF system goes some way to providing an effective tool for planning purposes, it does not clearly articulate the impacts of aircraft noise around an airport.

The main limitation of the ANEF is the perception that its contours represent all noise-impacted areas around the airport. This modelling is limited for two reasons, firstly as noise impacts vary on a personal level, and secondly, because the ANEF is an annual average figure, actual daily impacts may vary greatly from the average.

In order to use the ANEF system for planning purposes, it must be supplemented with information that provides a more realistic representation of aircraft noise effects. This would require the use of scenario examination tools like the Transparent Noise Information Pack (TNIP) provided by the Department of Infrastructure, Transport, Regional Development and Local Government, and N70 indicators or single event contours.

2. *How effective is the ANEF system as a land use planning standard for greenfield developments around airports?*

Land use planning for greenfield sites is critical, as it is unlikely that residential areas, once developed, will be relocated or re-zoned. If new residents under flight paths or near airports are concerned about aircraft noise, the likely outcome of persistent complaints will be a call noise sharing arrangements, movement caps, changes in aircraft approaches and, in extreme cases, curfews. All of these solutions come at a considerable cost to airports, airlines, economic activity and the broader community.

Unfortunately, notwithstanding the high potential for operational impacts associated with greenfield developments near airports there are currently examples of approved planned residential developments in close proximity to both Canberra and Brisbane airports. Although these developments may comply with guidelines for noise levels under ANEF 20, if allowed to proceed there is a high likelihood that these developments will have serious long term detrimental effects on the operations of these airports.

The approval by state governments of these developments appears to highlight a disconnect between these governments and the views of the Federal Government as expressed at page 191 of the National Aviation Policy Green Paper:

“It does not make sense to allow new noise sensitive developments to occur in areas where they will lead to public concerns that may

affect the long term viability of the airport. In particular, there is every reason to avoid noise sensitive development in green field sites near airport flight paths.”

Qantas considers that clearer legislative planning guidance and a requirement for state and local governments to refer any proposed developments under airport flight paths or in noise affected areas to the Commonwealth Transport Minister for approval would constitute an appropriate solution to this issue.

3. *Are the acceptable levels of aircraft noise for particular developments identified in AS2021 consistent with current community expectations?*
4. *How can the current planning arrangements to address developments in noise-affected areas around airports and under flight paths be improved to take account of community expectations, while also providing for the reasonable growth of aviation activity at airports?*

It is essential to strike an appropriate balance between legitimate community concerns regarding aircraft noise and the growth of aviation activity at airports. This is internationally recognised with land use planning one of the key elements of “ICAO’s Balanced Approach to Aircraft Noise Management”. To strike this balance requires a land use planning arrangement that provides effective protection for future residents around airports whilst protecting the reduction in noise already achieved by the airlines investment in new technology aircraft.

The ANEF process needs to be modified to ensure a realistic assessment of scenarios for residents and the outcomes factored in to the determination of the acceptability of an area for residents.

From a purely land-use planning perspective it is also important to take a conservative view of the potential impacts. This is particularly important in greenfield sites. This can be assisted by using an airports ultimate capacity as the basis for any forecasts.

Qantas also considers that there should be an obligation to place information on the title of noise-affected residences and a requirement that noise be included as a consideration in the sales process of any noise-affected residence (and developers in the case of greenfield sites) to highlight the noise implications to potential purchasers. There should also be a system that attaches noise covenants to the titles of these properties to ensure initial and future purchasers are aware of the noise issues associated with these properties. This is particularly important where the noise implications may not be experienced for developments for a period of time after their construction.

5. *For developments around the major capital city and freight airports, should state governments have to refer residential development within a defined buffer zone to the Commonwealth Transport Minister or Secretary for approval?*

As discussed above, Qantas considers that a referral system would be of great benefit in ensuring the appropriate balance is struck between allowing compatible development around airports to occur and avoiding developments that would be incompatible from a safety, operational or noise perspective.

Ideally, a similar requirement would be developed to refer to the Commonwealth Minister for Transport developments – regardless of their nature – that could create a physical obstacle to aircraft, interfere with communication or navigational equipment or produce hazards in the form of smoke or turbulence.

In any such referral system it will be important to clearly outline how buffer zones are to be identified and defined.

Protection of operational airspace

6. *Should the current protection of airspace regulatory provisions be strengthened and broadened to cover all CASA-Certified and Registered aerodromes?*

In Qantas' view, current regulation is inadequate in that it provides for terminal area protection for approach and departure procedures based on legacy terrestrially-based navigation aids such as the VOR and ILS, but does not anticipate and protect the future approach and departure airspace requirements of emerging technologies as described in the ICAO Global Air Traffic Management Plan, and regional plans such as ASTRA, SESAR and NextGen. RNP and GLS are the systems of the future and their deployment is already underway in Australian terminal airspace. It is intended that these satellite-based terminal navigation procedures will progressively replace the legacy ground systems over the next 10 years and regulation must anticipate their deployment.

These new systems, in particular RNP-based arrivals and departures will also be deployed at regional aerodromes for reasons of operational performance and safety. Regulation of OLS for future deployment of satellite-based terminal navigation at regional airports is therefore essential for airports serviced by RPT operations.

This future protection of airspace is critical to ensure that all aerodromes can operate in a safe and efficient manner. Recent growth in aviation activity has seen some smaller regional airports experience enormous growth in passenger numbers, aircraft movements and aircraft size. This trend is set to continue with a number of regional ports substantially

increasing domestic and international services in the coming years. For this reason it is prudent to provide airspace protection for all aerodromes even if current levels of aviation activity would not appear to warrant such protection.

7. How might state, territory and local government planning rules help protect airports from encroachment by unsafe intrusions into airspace?

State and local government planning rules should reference the Airspace Protection Regulations for the Federal Leased Airports to ensure that a consistent approach is taken to these issues across all levels of government. A scheme requiring developments that may create unsafe encroachment into airspace to be referred to an appropriate Commonwealth Government representative should be established to ensure that developments that are inconsistent with airspace protection regulations are not allowed to proceed.

Ignorance of the Federal Airspace Protection Regulations would be lessened if these regulations were mirrored in state and local planning regulations. In any event, ignorance of the law has never been an acceptable excuse in other Australian legal contexts and should not be accepted for important matters such as airspace protection. A positive obligation should sit with developers along with appropriate local, state and federal officials to identify any potential regulatory breaches.

Turbulence and wind shear

8. Should there be a consistent industry standard for mechanical turbulence and wind shear? If so, should the standard be proscriptive or allow for a case by case assessment?

Unfortunately ICAO provides little guidance on mechanical turbulence. While both on- and off-airport influences must be considered, in Qantas' view analysis of off-airport effects is likely to be outside the scope and capabilities of airports. Clearly size, shape and proximity to other structures can significantly change potential turbulence effects, and therefore it would be difficult to provide blanket prescription. However, established criteria which would trigger a study would appear to be appropriate.

9. Should expert modelling reports on turbulence and wind shear be mandatory for developments in close proximity to runways and who should bear the cost?

Off-airport developments in close proximity to runways should require compulsory modelling by experts in turbulence and wind shear analysis, and these reports should be considered as part of the broader approvals process. The potential impacts of such developments on aircraft can be significant and in extreme cases dangerous. The cost of such reports should be borne by the entity proposing the development.

It is also important for airports to carefully consider the potential wind shear issues associated with developments on airport. Large developments near runways can have wind shear implications and these should be assessed and considered as part of Major Development Plans.

Wildlife hazards

10. Given variable regional circumstances for birds and flying foxes, would a recommended standard zone (eg 15km radius) be appropriate?

Defined existing and proposed activities within a radius of an airport should be subject to assessment and review for bird life implications, eg proposed wetlands, garbage dumps, dredging. That radius or 'protected area' will vary with location, and therefore, a 15km radius may not be appropriate in all circumstances.

11. What other planning issues might arise in safeguarding against birdstrike?

In Qantas' view it might be unreasonable to place the full responsibility for assessment (other than for immediate proximity) on the airport owner. Councils and other agencies may have access to better information and understanding of future development and change. Guidelines would need to be comprehensive, with some central authority established in the Commonwealth Transport Department or other agency, and some arbitration process may also be necessary.

Wind turbines

12. What guidance do state, territory and local governments require on the siting of wind farms and the potential impacts on aviation?

Qantas supports the suggestion that proposed wind farms should be notified to CASA before planning permission, and that planning authorities should forward all proposals within 30km to the airport operator and CASA.

Protocols also need to be established to advise (in turn) Airservices Australia or the Department of Defence to ensure the proposal does not interfere with navigation, surveillance or communications systems.

A definition for what constitutes an airport for this purpose is also needed, eg does it include a landing strip on an individual's private property?

13. Should developers of wind farms be required to provide CASA with a report on the potential impacts on aviation and aviation infrastructure of the turbines?

An aviation assessment could potentially be carried out in parallel with any environmental assessment. Clear guidelines would need to be published and an appropriate arbiter determined.

Technical facilities

14. Should development of technical facilities near aerodromes (say within 5km) require automatic referral to CASA for assessment of impact on radar and navigation systems?

Qantas supports a requirement for automatic referral to CASA of any technical facility within a 5km radius of an aerodrome which might affect radar, communication or surveillance systems. However, the migration to satellite-based navigation systems and ADS-B for surveillance has the potential to reduce any impact in the longer term.

It should be recognised, however, that many existing radars, aviation communication networks, and towers and terrestrial navigation aids are located off aerodrome sites.

15. What additional guidance do state, territory and local governments require on the siting of technical sites and the potential impacts on radar and navigation systems?

Lighting and pilot distractions

16. Are CASA's requirements sufficient, and what additional guidance might state, territory and local governments require regarding lighting and pilot distractions?

Highway lights have in the past been mistaken for runway lights. Within a defined radius of an aerodrome, guidelines should be established for lighting which permeates skyward, eg, oval floodlights, main road lights.

Public safety zones (PSZs) and third party risk

17. Should an approach based on the identification of public safety zones be introduced to help ensure that new developments around the ends of runways do not lead to undue levels of risk?

In Qantas' view, an approach identifying PSZs should be implemented in Australia. Australia has some of the highest aviation safety standards in the world and an enviable safety record. However, in the event of an accident on take-off or landing, the potential for loss of life and property is very real. Against this background, there are very sound reasons to

identify PSZs and to mitigate the potential loss of life through ensuring any development at the ends of runways is appropriate.

There is a particularly strong argument for the implementation of PSZs where there are greenfield sites at the ends of runways. Such circumstances, particularly for busy RPT airports, should be strictly preserved.

18. For which airports might such public safety zones be identified – all airports or only major airports with regular airline traffic?

Ensuring that all communities around airports are safe should be the focus of any planning regime to identify and implement PSZs. The impact of inappropriate development around any aerodrome, regardless of whether it currently has RPT traffic, is inconsistent with the mutual aims of promoting public safety and safe airport operations. As noted previously in this submission, it is also prudent to plan for the substantial growth of existing Australian aerodromes in the coming decades. Avoiding inappropriate development around all aerodromes will greatly assist in maintaining the high levels of aviation safety in Australia.

19. What methodology and criteria should be applied in defining the boundaries of PSZ?

A methodology for determining the boundaries of PSZs should not be a 'one size fits all' approach. Airports, particularly when surrounded by existing development, often have complex operating modes for both take-off and landing. These specific operating conditions need to be considered for each airport in considering the boundaries of a PSZ. Consideration should also be given to future operational practices, eg, RNP / GLS and the prospective introduction of curved approaches / departures.

20. What sort of additional controls might be imposed for new developments in identified PSZs?

Approvals of developments within PSZs should be subject to a similar approval system as developments around airports or in noise-affected areas. Any new development in a PSZ should be referred to an appropriate Commonwealth Government representative who, in conjunction with CASA, should conduct a risk assessment of the proposal and either approve it, approve it subject to conditions or reject it.

21. What sort of steps might be taken to ensure the identification of a PSZ does not unduly affect the value and enjoyment of existing properties within the zone?

The key reason for creating a PSZ is to ensure the safety of people and properties in and around airports. In Qantas' view, commercial outcomes

should not dictate whether or not to provide for formal PSZs around Australia's airports.

The value of existing residential properties around airports is unlikely to be affected by the identification of a PSZ. Potential residential developments near the ends of runways would be ill-advised from both noise and safety perspectives and therefore would have been unlikely to be approved in any event.

For existing commercial properties there may be some changes to potential zoning or commercial uses that would affect the ability of these businesses to expand or change the use of that land. Restrictions on permitted uses of land currently apply throughout all jurisdictions in Australia, and would likely be in place for these commercial developments currently. In these circumstances the issue is not one that will necessarily lead to adverse commercial outcomes for landowners around airports. In the event that there was an adverse commercial outcome this must be weighed against the significant safety benefits that providing identified PSZs would provide.