



# Melbourne Airport & AIRCRAFT NOISE

## THE FACTS

Melbourne Airport is Victoria's gateway to Australia and the world. In 2009/10 more than 26 million passengers travelled through the airport on nearly 196,000 flights, with continued growth in passenger traffic predicted for the future. As a vital part of Victoria's domestic and international transport system, Melbourne Airport is a key player in the growth of Victoria's tourism, trade, business and leisure industries.

The airport is also a major generator of employment, employing around 12,500 people on-site and creating thousands more jobs in airport related industries throughout Victoria and Australia.

The ability for Melbourne Airport to operate 24 hours per day is an important strategic and economic advantage for Victoria. The absence of a night-time curfew at Melbourne Airport contributes around \$309 million to state product and \$77 million to the local value of production, this is expected to rise over time. Curfew-free operation is therefore strongly supported by the State Government and is an important component of State Government planning policy.

However, one of the unavoidable by-products of an airport's operation is aircraft noise. Commercial jet aircraft are 75% quieter now than when they were first introduced in the early 1960's, particularly with recent technology changes from turbojet to turbofan engines. Although significant improvements have been achieved over the last 30 years in the reduction of noise generated by aircraft, suburbs surrounding the airport are still impacted by noise from planes flying overhead.

Aircraft manufacturers, airline carriers and airport operators take a balanced approach to aircraft noise management in four main areas:

- Reduction of noise at the source by aircraft manufacturers
- Operating procedures
- Operating restrictions
- Compatible land use planning

This brochure provides information about aircraft noise at Melbourne Airport and the steps being taken to minimise its affect on the surrounding community.

Details are also provided of where people can obtain more information on aircraft activities and about planning controls currently in place to protect people from the adverse affects of aircraft noise.





## Standard used for assessing aircraft noise

The Commonwealth Government has adopted Australian Standard AS-2021 (Acoustics – Aircraft noise intrusion – Building siting and construction) as a method of assessing aircraft noise for the purpose of land use planning at all Australian airports.

AS-2021 outlines the required method for monitoring aircraft noise and recommends where residential development around airports should be restricted. The standard also includes insulation requirements for noise affected buildings such as homes, schools, hospitals etc, to achieve recommended indoor noise levels.



## Land use planning

AS-2021 uses the Australian Noise Exposure Forecast (ANEF) to calculate aircraft noise and provides advice on which land uses are compatible with various levels of aircraft noise exposure. The noise measure is obtained by forecasting the airport's daily aircraft traffic, averaged over a full year, and calculating the total amount of aircraft noise that traffic will produce in areas around the airport.

The ANEF is an indicator of total aircraft noise on an average day. ANEF numbers are not indicators of how loud a specific noise event is, but rather a perceived measure of how much noise will be received in a particular area over a 24 hour period. The overhead flight of one very noisy aircraft may have the same ANEF rating as multiple overflights of much quieter aircraft.

Federal Government legislation requires the ANEF for each major Australian airport to be reviewed and updated every five years. This ensures that it takes into account current trends for forecasts of aircraft numbers and types, changes to current and future flight paths, physical changes to the airport's runway systems, weather conditions and any updates to the ANEF software program. Before it is issued, the revised ANEF is reviewed by Airservices Australia to ensure that it is technically accurate and endorsed as such if it meets the Federal Transport Minister's requirements. The ANEF is a required component of an airport's Master Plan, which must be submitted to the Federal Transport Minister for approval every five years.



## Noise standards and planning controls

To minimise the impact of aircraft noise on the local community, the State Government has introduced a Melbourne Airport Environs Overlay which specifies planning controls on the type of development that is permitted to occur in noise affected areas around Melbourne Airport. These restrictions are based on AS-2021 which recommends the ANEF level suitable for residential development.

### The Melbourne Airport Environs Overlay aims to:

- Minimise the number of people adversely affected by noise;
- Identify areas which are or will be subject to high levels of aircraft noise and;
- Ensure land use and development is compatible with the operation of Melbourne Airport.

Although the ANEF provides a stable indicator for land use planning purposes, noise impacts can still occur in areas considered “suitable” because of people’s differing tolerance to aircraft noise. Because of this, the “suitable” level outlined by the ANEF may not be acceptable to someone who is particularly sensitive to aircraft noise or who resides in an area that is subject to high variability in aircraft overflights.

People particularly averse to noise of any type should consider carefully the pros and cons of living permanently in areas close to the airport. Before moving into such an area, it may be worthwhile for prospective residents to visit the area several times while aircraft are operating to experience the noise, rather than attempting to make a judgement from noise levels on paper.

Other mechanisms exist to address noise impacts on these circumstances. Melbourne Airport convenes the Melbourne Airport Noise Abatement Committee which reviews the impact of aircraft noise (including complaints from the public) and makes recommendations to minimise the impact.

As a guide to noise impact, AS-2021 states that an area of at least 15km radius around a major international airport, such as Melbourne, will receive a level of noise exposure which some members of the community may find unacceptable.

Local council planning departments can advise on planning restrictions that apply to areas in their municipality that are affected by aircraft noise.



## Monitoring and reporting noise

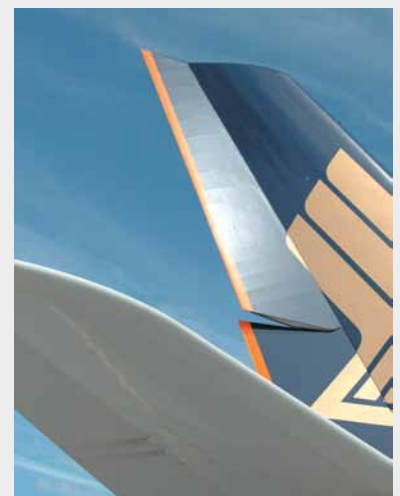
In addition to its responsibilities for air navigation and control, Airservices Australia is the Federal Government agency responsible for managing in-flight aircraft noise and minimising the environmental impact of aircraft operations. Airservices has legislated obligations to protect the environment from the effects of aircraft operations but safety cannot be compromised.

Airservices has set up noise monitoring equipment in a number of suburbs around Melbourne to measure aircraft noise. When any of these monitors experience a noise event, Airservices' computerised Noise and Flight Path Monitoring System (NFPMS) can identify the flight path and altitude of every aircraft operating in the vicinity of the monitor at that time, as well as the general level of background noise. This system is used to provide information about aircraft noise and operations around the airport.

Airservices provides a noise enquiry service (1800 802 584) to log and investigate aircraft noise complaints from the community. Noise complaints should contain information on the time and general location of the specific event so Airservices can use its computer system to match the complaint to a particular aircraft and its track. The telephone line is the preferred method for noise inquiries as it enables Airservices staff to ask relevant questions to ensure they have the information they need to track complaints. It also enables discussions of specific issues and provision of relevant information concerning aircraft operations.

Airservices also offers WebTrak, a website that provides the community with information on where aircraft fly and the noise levels of these operations, in near real time.

Noise enquiries and complaints can be lodged via WebTrak, phone, fax, internet or in writing. Further information is available at [www.airservicesaustralia.com](http://www.airservicesaustralia.com)





## Aircraft flight paths

Aircraft operating in and out of Melbourne Airport do so in accordance with the published Melbourne Noise Abatement Procedures.

One of the most common misconceptions about jet aircraft is that they are able to confine their movements to just a few designated flight paths, similar to the way that trains travel on rail tracks. The reality is that flight paths vary. There are a number of reasons that aircraft are not able to always maintain identical approach and departure paths, including:

- **Bad weather**  
Flight path adjustments are sometimes necessary for aircraft to avoid hazardous weather such as storms or rain squalls.
- **Wind direction**  
Aircraft must take-off and land into the wind, therefore wind direction will always dictate an aircraft's approach or departure runway at Melbourne Airport.
- **Wind speed**  
The climb performance of an aircraft is affected by the speed of the wind into which the aircraft is flying.
- **Safety**  
Air Traffic Control may direct aircraft from a standard flight path in order to maintain safe separation with other aircraft, including those operating at nearby airports such as Essendon.

- **Technical reasons**

Different piloting techniques and navigation equipment can affect an aircraft's flight path.

- **Temperature**

High temperatures can reduce an aircraft's climb performance, resulting in lower altitudes during take-off on hot days.

- **Aircraft type**

Large aircraft have large turning radii, whilst an aircraft's overall manoeuvrability is also dependent on aircraft design, engine capability, payload and weather.

## Melbourne Airport Noise Abatement Committee

As Chair of the Melbourne Airport Noise Abatement Committee, Melbourne Airport management plays an active role, where appropriate, in helping to minimise the impact of aircraft noise on local residents. This committee meets quarterly and includes representatives from nearby local councils covered by the ANEF, as well as representatives from State and Federal Governments, EPA Victoria, Airservices Australia and the major airline carriers.

The Noise Abatement Committee reviews noise monitoring data, any flight path changes proposed by Airservices Australia, noise complaints and other community related noise issues.



## Where can I get more information?

### Airservices Australia

[www.airservicesaustralia.com](http://www.airservicesaustralia.com)

This website contains information on:

- Principles for noise abatement
- General information on flight routes and flight paths
- The Noise and Flight Path Monitoring System (NFPMS)
- Lodging a noise enquiry or complaint online
- WebTrak

The section on the Noise and Flight Path Monitoring System (NFPMS) also contains a copy of the latest quarterly report on the results from the noise monitors around Melbourne Airport.

### Department of Infrastructure and Transport

[www.infrastructure.gov.au/aviation/environmental](http://www.infrastructure.gov.au/aviation/environmental)

This website contains information on:

- Aircraft Noise Regulations
- Aircraft Noise Disclosure

### Melbourne Airport

[www.melbourneairport.com.au](http://www.melbourneairport.com.au)

## Contact numbers

Airservices Australia Noise Enquiry Unit  
1800 802 584

Melbourne Airport  
(03) 9297 1600

