



# Airservices commitment to aircraft noise management





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## Foreword

Airservices has made significant progress in renewing its approach to the equitable and transparent management of aircraft noise. The implementation of recommendations from the Aircraft Noise Ombudsman, improvements in complaint management and the availability of noise information, increased engagement and collaboration with the community and aviation industry on flight path changes and improvements to the air traffic system are just some examples of our efforts.

We are committed to minimising, and where possible, reducing the impact of aircraft noise, with a view to achieving worlds best practice in aircraft noise management. As such, this document sets out, in plain language, the principles that support our commitment to managing aircraft noise today and in the future.

We recognise that we won't always be able to address everyone's concerns, but we will do our best to ensure everyone can understand the reasoning for any decisions we make concerning aircraft noise.

We will benchmark ourselves against other organisations with similar responsibilities to measure our progress, ensuring continual learning and adaptation.

We look forward to ongoing collaboration and engaging all aviation industry stakeholders to achieve worlds best practice in aircraft noise management.



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November 2013



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## Introduction

Airservices Australia is a provider of safe, secure, efficient and environmentally responsible air navigation and aviation rescue and fire fighting services. We are focussed on enhancing safety, improving capacity and cost effectiveness, minimising environmental impact and meeting customer needs.

Aviation plays an important role for the economy in connecting people and goods. With strong growth expected across the aviation industry, environmental impacts on the community will become increasingly important and addressing them is one of Airservices highest priorities.

Airservices has developed this Aircraft Noise Management Commitment document to inform the community and aviation industry on how we intend to collaboratively address the impact of aircraft noise.

Further information on how we work with the community and manage aircraft noise is available on our website: [www.airservicesaustralia.com/aircraftnoise](http://www.airservicesaustralia.com/aircraftnoise). Information includes Airservices Communication and Consultation Protocol, factsheets on topics such as reducing the impact of aircraft noise, fundamentals of sound and the environment assessment process.

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## Our commitment

Safety is our number one priority, but we recognise that aircraft noise, a by-product of a growing economy, is the most significant cause of adverse community reaction to increased aviation operations. Our long-term goal is to minimise, and where possible reduce, the impact of aircraft noise. This includes collaboration and consultation with the community and aviation industry on proposed air traffic changes as well as working with them to explore and employ smarter operating solutions.

Managing the environmental impact of aircraft noise to deliver better outcomes for all stakeholders is also a key environmental goal for the Australian aviation industry. Using a collaborative approach, we believe this goal can be achieved.

Through our legislated requirement to provide environmentally sustainable air navigation services and our vision of connecting the Australian aviation industry, we are uniquely positioned to facilitate this collaborative effort. As such, we are committed to achieving world's best practice in aircraft noise management.

## Our principles

To help us work towards achieving world's best practice in aircraft noise management, we have identified five key areas that, along with the application of supporting guiding principles, will increase stakeholder engagement and collaboration across the aviation industry. This will lead to opportunities for innovation and improvements in the management of both aircraft noise and its impact on the community.

To validate our progress and ensure continual improvement, we will undertake ongoing benchmarking and share our knowledge and lessons learned with other air navigation service providers and industry stakeholders.

The five key areas are:

1. proactive community engagement, consultation and information
2. collaborative stakeholder engagement within the aviation industry on aircraft noise
3. alignment of actions and processes to the International Civil Aviation Organization (ICAO) Balanced Approach to Noise Management
4. innovation and technology development within Airservices and across the industry to reduce the impact of noise
5. independent validation and international benchmarking of our processes and actions.

The principles that will be applied to these areas are outlined below.

### **Community engagement, consultation and information**

We recognise the importance of proactive community engagement and public participation when managing noise related issues.

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To ensure this we will:

- provide clear, timely and accessible information to the community on current aircraft noise, future aircraft noise and aircraft operations
- engage openly and constructively with the community, and consult in a timely manner on aircraft noise and changes to the air traffic management (ATM) system that impacts the community
- actively investigate changes which deliver improved noise outcomes, including review of ATM procedures
- ensure transparency in our processes and actions which impact the community, by:
  - ensuring decisions are based upon analysed data, clear criteria developed according to the situation and consult on those decisions
  - ensuring consideration is given to the views of all stakeholders including regulators, industry and the community
  - communicate outcomes to relevant stakeholders, clearly explaining the options, preferred options and basis for decision
  - make available all relevant information about our decision making process, for example via the internet and local governments
- inform the public, in a timely manner, of key decisions and upcoming changes, progress on ongoing activities and implementation of relevant emerging technologies, which may impact the community
- respond to complaints, enquiries and suggestions for change, effectively and efficiently, with the aim to resolve the matter in a timely manner
- ensure we connect enquiries and complaints to the relevant stakeholders, for example airlines, government and regulatory bodies.

### **Collaborative stakeholder engagement within the aviation industry**

Collaboration provides an opportunity to approach issues from many angles. To facilitate a collaborative approach when dealing with our industry stakeholders about aircraft noise we will:

- actively connect and collaborate with aircraft noise stakeholders to achieve better outcomes for the community, industry and the environment
- use an open, inclusive and transparent industry stakeholder engagement process
- seek out and involve industry stakeholders and experts when making decisions about specific changes
- use industry forums and frameworks to support stakeholder consultation and engagement on aircraft noise
- actively respond to industry requests for information and change
- consult with airport operators, airlines and the community on any changes to Noise Abatement Procedures
- support the provision of relevant information to Land Use Planning Authorities.

### **Alignment to ICAO Balanced Approach to Noise Management**

ICAO developed the *Balanced Approach to Noise Management* to guide aircraft noise management, and since 2001 has required its member states (including Australia) to adopt this approach. This approach addresses aircraft noise management in four elements:

- reduction of noise at source, for example quieter aircraft, noise standards
- land-use planning and management, for example zoning, easements, building standards

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- noise abatement operational procedures, for example noise preferred routes and runways
  - operating restrictions on aircraft, for example caps, curfews and quotas, which are regarded as last resorts and only to be used after the other three options above have been exhausted.

We will align (where applicable) our actions and processes to these four elements and proactively work with and assist airlines, airports, government departments and other stakeholders to adopt this approach. This will include identifying opportunities to reduce the impact of aircraft noise on the community, for example, when changing or reviewing noise abatement procedures). In doing so we will be guided by the following principles:

- noise should be concentrated as much as possible over non-noise sensitive areas and establishments<sup>1</sup>
- during assessment of noise management proposals, consideration shall be given to whether concentration or noise sharing is more appropriate at the location<sup>2</sup>
- when comparing options, operations that are conducted at night or on weekends shall be treated as being more sensitive than those which occur during the daytime or on weekdays
- current and future, short-term and long-term noise exposure shall be taken into account in deciding between options
- preference should be given to options which allow for a gradual change from the current to planned procedures.
- to the extent that it is practicable, residential areas flown over by aircraft arriving on a

particular runway should not also be flown over by aircraft departing from the runway

- it is not possible to guarantee any suburb, group or individual exemption from aircraft noise exposure
- noise abatement procedures should be optimised to achieve the lowest possible overall impact on the affected community, taking into account safety and other operational factors.

### **Innovation and technology development within Airservices and across the industry**

In addition to staying abreast of technical advancements and global developments in noise management, we will

- undertake (and encourage through collaboration with aviation stakeholders) research, development and trials in the deployment of enhanced and cost effective procedures, tools, technologies and systems
- actively seek out changes which deliver improved noise outcomes.

### **Independent validation and international benchmarking of our processes and actions**

To measure the success of our processes and actions in managing the impact of aircraft noise, we will benchmark our approach against other air navigation service providers and industry stakeholders playing similar roles internationally. This will include a comparative analysis with Europe and North America. We will review our commitment and measures of success on a biennial basis.

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1 Noise sensitive establishments (as specified in AS2021) include but are not limited to: residential areas, educational establishments, offices, hospitals, aged care, churches, religious activities, theatres, cinemas, recording studios, court houses, libraries and galleries.

2 Concentration will move noise from a larger community group to a smaller community group, resulting in lower noise dose and/or number of events for the larger group and an increased dose and/or noise events for the smaller group. Sharing will move a percentage of noise from a community group to one or more other groups of people, resulting in lower noise dose and/or number of events for the original group of people and an increased dose and/or noise events for the other group(s).

## Stakeholders

We engage stakeholders through regular consultation, including Airport Community Aviation Consultation Groups (CACG) and the National Industry Noise Forum, to increase awareness, collaborate and agree current and future service delivery requirements.

Addressing the different interests of stakeholders in managing aircraft noise is complex. Each stakeholder has a role in addressing, directly

or indirectly, the environmental impact of noise and building community awareness. Stakeholders include airlines and aircraft operators, airports, government departments who oversee transport and environment policy, as well as the community. The areas of direct and indirect influence of these and other important stakeholders are described in the following table.



**TABLE 1:** Stakeholders influence on managing aircraft noise

Stakeholder	Level of influence	
	Direct influence	Indirect influence
<b>Airlines and aircraft operators</b>	<ul style="list-style-type: none"> <li>▪ Comply with aircraft noise standards established by regulatory authorities.</li> <li>▪ Comply with noise abatement procedures for flight operations.</li> <li>▪ Comply with Airport curfew and airline scheduling requirements.</li> <li>▪ Determine aircraft type for flight use.</li> <li>▪ Determine whether to adopt noise efficient aircraft design, technology and operating procedures.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contribute to noise reduction initiatives, including input into proposed noise abatement procedures.</li> <li>▪ Participate in noise reduction programs.</li> </ul>
<b>Airports</b>	<ul style="list-style-type: none"> <li>▪ Participate in the design (in consultation with Airservices) and implementation of ground noise abatement measures (including consideration of Fly Neighbourly Agreements) as required by the <i>Airport Environment Protection Regulations 1997</i>.</li> <li>▪ Develop and implement their Noise Management Plans as required by the <i>Airport Environment Protection Regulations 1997</i>.</li> <li>▪ Actively work with aircraft operators to reduce ground noise and helicopter take-off noise.</li> <li>▪ Aircraft schedule coordination (slot management) at relevant airports.</li> <li>▪ Determining land use and developments (within legislative parameters) at airports.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Manage local community engagement, for example convening CACGs.</li> <li>▪ Participate in noise-reduction programs and noise monitoring.</li> </ul>

Stakeholder	Level of influence	
	Direct influence	Indirect influence
Airservices	<ul style="list-style-type: none"> <li>▪ Develop, design and publish flight paths in consultation with other stakeholders.</li> <li>▪ Provide air traffic control services and manage air traffic departure and arrivals according to flight paths.</li> <li>▪ Design, apply and review noise abatement procedures in consultation with relevant airports.</li> <li>▪ Certify aircraft to meet noise standards.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Undertake noise monitoring, for example use of Noise and Flight Path Monitoring System.</li> <li>▪ Provide a noise information service, offering reports, factsheets and other documents about aircraft noise and flight operations.</li> <li>▪ Provide an avenue for reporting and resolving complaints.</li> <li>▪ Analyse trends to identify issues to address.</li> <li>▪ Participate in CACGs and other community and technical noise forums.</li> <li>▪ Present and distribute relevant aircraft noise information to the community through CACGs, forums and other avenues, such as internet.</li> <li>▪ Proactively seek improved noise outcomes for the community.</li> <li>▪ Endorse Aircraft Noise Exposure Forecasts (ANEF) provided by airports for technical accuracy</li> <li>▪ Support land use planning through provision of information such as ANEF's</li> <li>▪ Monitor which aircraft operate during curfew periods and provide reports to the Department of Infrastructure and Regional Development.</li> <li>▪ Respond to Aircraft Noise Ombudsman recommendations and liaise with all stakeholders.</li> <li>▪ Apply principles of Aircraft Noise Management Commitment document.</li> <li>▪ Work with aircraft operators and local councils to develop 'Fly Neighbourly Agreements'.</li> </ul>
Aircraft Noise Ombudsman (ANO)		<ul style="list-style-type: none"> <li>▪ Conduct independent administrative reviews of Airservices management of aircraft noise issues, including complaint handling, information provision and consultation.</li> <li>▪ Drawing on complaint information, suggest noise improvement opportunities for consideration by Airservices.</li> </ul>

Stakeholder	Level of influence	
	Direct influence	Indirect influence
<b>Community</b>	<ul style="list-style-type: none"> <li>Exercise choice in housing location and style.</li> <li>Insist on full disclosure by vendors and intermediaries.</li> </ul>	<ul style="list-style-type: none"> <li>Use CACGs and other forums to put forward their views and contribute to the management of noise issues affecting their locality.</li> <li>Be informed about aircraft noise exposure near airports and under flight paths.</li> <li>Suggest noise improvement opportunities for consideration by Airservices.</li> <li>Make representations (and advocate improvements) to relevant authorities, through elected representatives and to appointed officials.</li> </ul>
<b>The Department of Infrastructure and Regional Development</b>	<ul style="list-style-type: none"> <li>Develop policy and create the regulatory framework for the aviation industry.</li> <li>Provide advice to the Minister on efficient management of aircraft noise.</li> <li>Provide services that include approvals of certain aircraft, oversight of airport curfews and certain activities and developments on airports (subject to the <i>Airports Act 1996</i>).</li> <li>Regulate and oversee management of 21 leased federal airports.</li> </ul>	<ul style="list-style-type: none"> <li>Oversee and liaise with state and local government over airport planning, development and land use.</li> <li>Represent Australia at International Civil Aviation Organisation (ICAO) and Committee on Aviation Environment Protection (CAEP).</li> </ul>
<b>State and local government</b>	<ul style="list-style-type: none"> <li>Manage land use planning around airports and under flight paths.</li> <li>Work in partnership with airports to ensure zoning is consistent with noise exposure information.</li> <li>Manage non-federally leased airports (including airports with flight training and helicopter operations).</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate access to relevant information and advice.</li> </ul>
<b>The Civil Aviation Safety Authority (CASA)</b>	<ul style="list-style-type: none"> <li>Office of Airspace Regulation (OAR) is responsible for ensuring that proposed changes to airspace adequately consider environmental implications.</li> </ul>	<ul style="list-style-type: none"> <li>Regulate the safety related activities of the civil aviation industry in Australia and the operation of Australian aircraft overseas.</li> </ul>

The Department of Defence undertakes activities that span the role of civil aviation industry stakeholders, including regulating airspace, developing flight paths, operating airports, managing land use planning, and operating aircraft.

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## Glossary

### **Aircraft noise exposure forecasts**

Contour maps that forecast aircraft noise levels expected to exist in the future. They are prepared for all of the major and regional airports and most of the minor aerodromes that have a large number of annual movements.

### **Aircraft noise standards**

The Air Navigation (Aircraft Noise) Regulations require all aircraft operating in Australian airspace to comply with noise standards and recommended practices introduced under the Convention on Civil Aviation. These standards are set out in the International Civil Aviation Organization's (ICAO) document, *Annex 16, Environmental Protection—Volume I*.

### **Community Aviation Consultation Group**

These are independent forums where community members and organisations can raise opinions and issues at specific airports. The Community Aviation Consultation Group (CACG) addresses planning and development issues as well as operational matters such as aircraft noise which may affect airport relations with their neighbours. They also provide an opportunity for communication and consultation, although may not be public forums.

### **Curfew**

A curfew is a legislated restriction on aircraft operations during a specified time period. Curfews are currently in place at four Australian airports (Sydney, Adelaide, Gold Coast (Coolangatta, Essendon) between 11 pm and 6 am. The restrictions limit what aircraft can land and take off, and, in some cases, the runways that can be used.

### **Flight paths**

The route taken or due to be taken through the air by an aircraft.

### **Noise abatement procedures**

Every airport has Noise Abatement Procedures (NAPs), which are designed to reduce the impact of aircraft noise on the community. They include procedures for runway use and flight paths to reduce flights over residential areas, as well as the designation of noise abatement areas. NAPs are implemented by air traffic control but their use is not mandatory and is subject to weather conditions and aircraft requirements.

### **Noise and flight path monitoring system**

Airservices has established a Noise and Flight Path Monitoring System (NFPMS) at Brisbane, Cairns, Canberra, Gold Coast, Sydney, Melbourne, Essendon, Adelaide and Perth airports. Operated from a single control centre, the system monitors aircraft operations and their environmental effects. For example, movement statistics, such as, runway usage by aircraft and movement profiles.

### **Noise reduction/amelioration initiatives**

Where the noise impact assessed for a specific location is considered unacceptable the residence/building may be considered for noise amelioration such as acoustic insulation, potential acquisition of the property or relocation.



## More Information

Airservices is committed to open and timely communication and consultation with our stakeholders. For further information, please contact Airservices Community Relations: [communityrelations@airservicesaustralia.com](mailto:communityrelations@airservicesaustralia.com)



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