



Airline Views

May 2018

1 Environmentally sustainable growth



With over 500 daily international flights to and from Australia, today's range and frequency of services affect the environment and community.

International airlines want to find ways of minimising the industry's environmental impacts, namely aircraft emissions and noise.

BARA's new policy paper, [Environmentally sustainable growth](#), describes how its member airlines are investing billions of dollars in 'new generation' aircraft flying to and from Australia. These new aircraft are 10–30% more fuel efficient, emit fewer emissions and make 15% less noise than the aircraft they are replacing.

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2 ICAO's 'balanced approach'



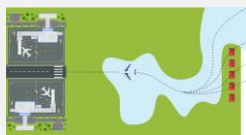
The overarching framework for addressing aircraft noise is the International Civil Aviation Organization's (ICAO) balanced approach.

The balanced approach is based on four pillars:

1. reduction of noise at source
2. land use planning and management
3. noise abatement operational procedures
4. operating restrictions on aircraft.

The balanced approach seeks to coordinate and align policy developments so they can deliver improved noise outcomes for the community.

3 Required navigation performance



Required navigation performance (RNP) is a satellite-based technology that provides high levels of three-dimensional positional accuracy.

RNP allows those aircraft equipped with the technology to follow ideal flight profiles. It also offers the opportunity to avoid areas that are sensitive to aircraft noise where possible, and equitably share aircraft noise when flights over residential areas are necessary.

BARA supports the continued modernisation of air navigation services in supporting increasingly efficient safe aircraft operations.

4 2016–17 airport monitoring results



In 2016–17 the ratings for some airport services have lifted from 'poor' to 'satisfactory', while others have declined.

After some 15 years of the current economic regulatory arrangements for the major Australian airports, airlines are yet to see the consistent delivery of airport services at good standards.

BARA is seeking outcomes that fit with the airport operators improving on these results and delivering value for money in airport services.

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Environmentally sustainable growth

International airlines want to minimise the aviation industry's environmental impacts, namely aircraft emissions and noise. BARA's new policy paper, *Environmentally Sustainable Growth*, describes how the industry can improve its environmental performance by making the best use of advancements in aircraft and air navigation services. Allowing industry to efficiently manage its daily operations within overall noise objectives can also deliver better outcomes for communities.

Over 500 international flights each day to and from Australia serve over 38 million international passengers annually. They also produce emissions and noise that affect the environment and community.

BARA's three identified paths to improved environmental performance are:

1. evolving aircraft technologies and air navigation services
2. emissions reduction schemes
3. best practice aircraft operations.

'New generation' aircraft flying to and from Australia are 10–30% more fuel efficient and make 15% less noise than the aircraft they are replacing. The best environmental outcomes are achieved when air navigation services allow these modern aircraft to operate as efficiently and quietly as possible. Further, allowing industry to efficiently manage its daily operations within overall noise objectives can also deliver better outcomes for communities and passengers.

Environmental impacts

According to the International Civil Aviation Organization (ICAO), international flights account for about 1.3% of total CO₂ emissions globally, most of which are a by-product of fuel burn.

Aircraft and aircraft-related activities at and around airports can also be a source of emissions that affect local air quality at ground level. About 10% of the aviation industry's emissions are produced by activities at airports, as well as by the transport of passengers and freight to and from airports.

An aircraft in flight compresses the air around it, which causes noise in addition to that made by its engines. The noise generated by each plane is influenced by many factors, including the aircraft's acoustic design, the underlying noise quality of engines, and the level of engine thrust applied.

People living near airports or under or near busy flight paths are exposed to aircraft noise, which can affect people differently. Many people are not aware of aircraft noise until they are exposed to it overhead. As noise perception is subjective, broad surveys are used to gauge the number of people affected by aircraft operations.

Carbon neutral growth

Australia's international flights are one part of a global network. In 2010, ICAO set the industry the goals of an average improvement in fuel/CO₂ efficiency of 2% a year. The International Air Transport Association (IATA) has set an aspirational goal of a 50% reduction in CO₂ emissions on 2005 levels by 2050. These goals recognise that the industry needs to meet community expectations.

ICAO is facilitating the implementation of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). This industry-led initiative aims to achieve carbon neutral growth for international flights from 2020 levels. Australia



has committed to participating in CORSIA from its planned start in 2021.

Sustainable alternative jet fuels

For aviation, there are no practical options foreseen in the next few decades to power most aircraft other than with liquid fuels. To reduce emissions, one emerging technology is sustainable alternative jet fuels (SAJF), where the fuel is derived from organic material (biomass), such as plants.

Since 2013, when the first regular flight using SAJF took place between New York and Amsterdam, 21 airlines have now used SAJF for their commercial flights. Recently, Australian-based carriers committed to buying initial volumes of SAJF for some of their international flights to and from Australia.

SAJF use is modest because their cost is still high relative to jet fuel. If SAJF are to be used in Australia, the existing networks of Australian jet fuel infrastructure supply chains will need to be modified so they can deliver them. This should be part of the overall reform of Australia's jet fuel infrastructure supply chains.

Proactive noise mitigation

The noise impact on communities could be reduced by enabling modern aircraft to operate as quietly as possible. Around our busy international airports, a modernised approach to aircraft operations on approach, landing and departure could reduce the noise impact on surrounding communities. While how much noise is reduced will depend on airport-specific factors and daily weather conditions, the noise from individual international flights could be reduced by between 10% and 50%.

Australia's existing aircraft noise mitigation measures rely on fixed rules, including in some cases the prescription of the aircraft types that can be used for particular operations, preventing

quieter and more fuel-efficient modern aircraft from being operated.

The most prescriptive and extensive requirements exist for Sydney Airport, and cover almost all aspects of airline operations. Night-time curfews, hourly movement caps, noise-sharing modes and flight path restrictions are all used to mitigate aircraft noise at Sydney Airport. A curfew is also in place at Adelaide and Gold Coast airports.

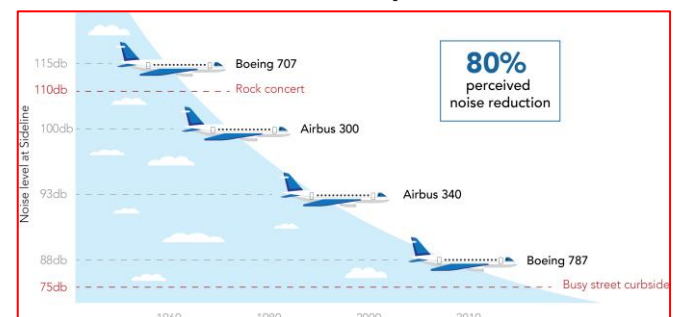
Moving to a framework that embraces quieter and more fuel-efficient modern aircraft will benefit the community through reducing aircraft noise; it is also necessary to help justify the investments made in these aircraft capabilities.

There are various options that could be explored as part of an overall environmental impact reform package, including:

- noise measurements for individual aircraft
- operation flexibility
- noise budgets for each airport
- publicly available reporting on improvements achieved.

BARA supports reviewing existing aircraft noise mitigation frameworks with an aim of using more effective measures to the benefit of communities, passengers and airlines.

Reductions in noise levels per aircraft





2016–17 airport monitoring results

A key expectation of ‘light-handed’ economic regulation was that airport operators would deliver modern and high-quality services for airlines. Actual outcomes for international airlines, however, remain below what were expected for the prices paid by the airlines for those services.

The Australian Competition and Consumer Commission (ACCC) has released its 2016–17 *Airport Monitoring Report* for Sydney, Melbourne, Brisbane and Perth Airports. It has added to the ongoing debate over whether airlines and passengers have got a fair deal from light-handed economic regulation.

BARA’s view remains that light-handed economic regulation has not delivered the high-quality outcomes envisaged for international airlines, and it’s been some 15 years since the arrangements were put in place. This view is based on a face value examination of the airlines’ ratings for key airport services and the rights international airlines have under their aeronautical agreements with the airport operators.

Reasonable expectations

In recommending the removal of price controls, the Productivity Commission considered the new, commercially negotiated arrangements would generate improvements for all parties:

In removing such regulatory intrusion, the switch to a light-handed approach was intended to facilitate investment and innovation by airports...With a number of the airports looking to embark on major new upgrades, this more timely and responsive investment environment is likely to be a source of even greater benefit in the future. (PC 2006, *Review of price Regulation of Airport Services*, pp. XIII and XV)

It’s been over 10 years since these statements were made, providing ample time for such airport innovation and responsiveness to flow through to international airlines.

Actual outcomes

The table below shows the 2016–17 availability and standard ratings given by airlines for check-in, aerobridges and baggage systems in the international terminals, and the aircraft aprons for the entire airport at the four major airports.

Under arrangements delivering innovation in service delivery one could expect an average rating of ‘good’ (green), with several ‘excellent’ outcomes (a colour yet to be determined as none of the listed services rated this high). Instead, the outcomes are usually at least one rating below at ‘satisfactory’ (amber), with Sydney Airport’s baggage system standard still rated ‘poor’ (red).

Airline ratings of key airport services

	SYD	MEL	BNE	PER
Check-in availability	●	●	●	●
Check-in standard	●	●	●	●
Aerobridges availability	●	●	●	●
Aerobridges standard	●	●	●	●
Baggage availability	●	●	●	●
Baggage standard	●	●	●	●
Aircraft aprons availability	●	●	●	●
Aircraft aprons standard	●	●	●	●

Source: Derived from the ACCC’s 2016-17 Airport Monitoring Report

Across all measures and services (domestic and international) the average result was ‘satisfactory’ to ‘good’. BARA’s members, however, are still making do with assets often below reasonable expectations. ‘Poor’ and ‘Satisfactory’ airline ratings are not evidence of ‘world class’ infrastructure. The ratings highlight that despite the substantial increases in aeronautical revenues per passenger over the last 15 years, airlines have not enjoyed corresponding improvements in the quality of these more expensive airport services.