Environmental Overview
2006 / 2007
Aviation is an essential part of the modern world, delivering social and economic benefits to diverse areas right across the globe through tourism, business travel and the sharing of knowledge and experiences. Equally, we are aware of the negative effects that flying can have on the environment and local communities. We acknowledge our impact on the environment openly and honestly and actively work to minimise that impact.

Environmental considerations are at the core of everything we do. That’s why we’ve been reporting our environmental performance since 1992, the first airline to do so.

We have led the aviation industry for the last seven years in promoting carbon trading, and are the only airline in the world to have participated in carbon trading through the UK’s voluntary scheme. We were also the first airline to enable its customers to offset their flight emissions. We invest in research, exploiting new technologies and expertise in order to address environmental challenges.

Through improvements in fuel efficiency we have already cut our carbon dioxide emissions by 60 million tonnes since 1990 – nearly four times our annual carbon emissions. We have consistently set the standard for environmental awareness and we are committed to continuing our work on improving our energy efficiency.

We have been involved in the creation of our new home in Terminal 5 to ensure that it is energy and water efficient, maximises recycling potential and minimises waste production.

We will continue to keep you informed about our progress and our broader approach to our responsibilities, but in the future we will move away from printing these reports, towards a more environmentally friendly format online as part of our shift towards doing the majority of our business on ba.com.
Climate Change

Each time we take a flight or drive a car, carbon dioxide (CO$_2$) is added into the atmosphere. CO$_2$ is a greenhouse gas that is released when fossil fuels such as oil, gas and coal are burned. Aircraft also create other effects, for which there is less scientific understanding, such as methane reduction, cloud formation and ozone production (non-CO$_2$ effects).

Earth is surrounded by a blanket of greenhouse gases, which keeps the surface of the planet at the right temperature to sustain life. As we release CO$_2$ and other greenhouse gases this blanket gets thicker. The result is that the Earth’s atmosphere is getting warmer and our climate is beginning to change.

Carbon footprint

British Airways has been committed to lowering harmful emissions for many years, and since 1990 we have improved our fuel efficiency by 28% cutting over 60 million tonnes of carbon dioxide emissions from the atmosphere – nearly four times our annual carbon emission. This means that we are on-track to deliver our current target to achieve a 30% improvement in fuel efficiency by 2010. Going forward, we will set a new target to improve our fuel efficiency even further.

And such achievements are not just limited to our aircraft - our ground energy consumption in the UK has reduced by 23% since 2000.

In the last two years, emissions saving measures have reduced our CO$_2$ footprint by 110,000 tonnes. These measures include: shorter flight routings, improvements to landing procedures and fitting new lightweight seats to our A320 aircraft.

As the driving force behind airline environmental awareness we have consistently argued that aviation should be included in carbon trading. It was therefore pleasing to hear that the European Commission has been persuaded to include the industry in the European trading scheme from 2011.

We believe that trading is a workable solution for addressing aircraft emissions. In fact, we have successfully completed five years of participation in the UK voluntary emissions trading scheme, reducing our UK emissions by 23%.

We are also a partner in a European research project known as IAGOS, which has been set up to develop ways to measure the non-CO$_2$ effects of aircraft in the upper atmosphere. A scientific review commissioned by British Airways has found that simple multiplier factors should not be used to represent these effects as they overstate the total impact of aircraft emissions.

Case Study : New York

Our New York team has achieved significant energy savings at the JFK Terminal through the replacement of light fixtures with compact fluorescent lamps and the replacement of ageing chilled water valves.

The team also have a target to recycle 40% of all waste from the terminal by the end of 2007.

How does carbon trading work?

Carbon trading sets an absolute cap on emissions from the whole economy. Participants are given allowances of permitted emissions. If the allowance is too small, the company must then either cut emissions, for example by investing in low emissions technology, buy extra allowances from the market, or undertake a combination of the two. Allowance prices reflect the lowest costs of achieving emissions cuts across the economy.

What is carbon offsetting?

Both carbon trading and offsetting carbon emissions are based on the same idea. By investing in clean technology or renewable energy, we can balance the emissions created by flying by reducing CO$_2$ emissions elsewhere. The money raised from your offset contribution helps to fund projects that reduce the total amount of carbon emitted, e.g. fuel efficient light bulbs and human powered water pumps. The projects often have other health and social benefits, so you can have a positive effect on communities as well as the planet. We have offered an offset scheme through ba.com since 2005. Go to ba.com/offsetyouremissions for further information.
We are very aware of the noise impact our aircraft can have on local communities, particularly those close to our busy London hubs at Heathrow and Gatwick. Our continuing efforts to minimise these effects are centred around two key areas: further investment in quieter aircraft and the development of better operating procedures.

Thanks to these actions, we have halved the noise impact of our aircraft since 1998. Indicators of our noise performance, for example keeping to minimum noise routings at Heathrow and Gatwick, also show that we are once again amongst the best performers.

To use another benchmark, our entire fleet is complaint with international ‘Chapter 3’ noise standards with 87% also meeting the criteria for the most stringent ‘Chapter 4’ standard.

As well as ensuring that our aircraft are amongst the lowest noise polluters, we have also been active in the development of an arrivals code of practice. For example, 95% of our arrivals into Heathrow use the quieter Continuous Descent Approach (CDA) procedure, a figure that is consistently above the airport average for this practice.

CDA involves a steady descent from around 6,000 feet rather than a series of steeper stepped descents. This procedure has been shown to be the optimum low noise procedure where airspace and safety considerations allow.

We are also investigating the potential for optimising CDA using equipment already available on our aircraft. This would improve arrival procedures and minimise noise disturbance for local communities.

Following on from the success of CDA, we are now chairing a new group to look at the potential for a similar code for departing aircraft.

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**Total noise energy from British Airways aircraft**

(million ‘Quota Count’ equivalents)

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<th>Year</th>
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Waste management continues to be a priority area for our environmental programme. The challenge is to manage a complex range of wastes generated by a variety of business activities.

Our aim is to reduce waste at source, but where this is not possible the priority is to find ways to re-use it, whether in whole or part. We are committed to recycling any remaining waste, with an overall goal of reducing our reliance on landfill for final disposal. As technology and facilities become available, we will explore the use of incineration with energy recovery or composting as methods to avoid disposal to landfill.

Such efforts are having significant results, with figures showing that the total amount of waste handled by our waste management contractor at Heathrow and Gatwick has decreased by 9% compared to last year. Overall, there is a 6% improvement year-on-year in the waste per passenger at Heathrow and Gatwick and we currently recycle 28% of our solid waste at these airports.

Our principal aims of reducing waste at source and recycling all possible unavoidable waste have resulted in a 10% decrease in the amount of waste going to landfill from Heathrow and Gatwick in comparison with the previous year. By 2010 we aim to be recycling 50% of our waste and sending none to landfill.

To maximise our recycling potential we have also formed a group to focus on the recycling of materials provided as part of the catering product and associated in-flight service. On top of this, we have recently launched a project to recycle newspapers from shorthaul flights arriving into Heathrow.

Recycling opportunities come in many different guises. For example, we have established a new worldwide furniture management contract that promotes the re-use and recycling of our office furniture, which will help to promote our principal aim of avoiding waste to landfill. We continue to seek opportunities to source recycled material and have recently introduced recycled paper to all of the office printers in the UK. This allows us to protect the environment as both a recycler and a purchaser of recycled products.

We also recognise water as a precious commodity and we routinely monitor our water consumption wherever possible. Through careful consideration we managed to achieve a 2.5% reduction on water consumption at our London hub airports of Heathrow and Gatwick.
A new home for a new era

The £4.3 billion state-of-the-art airport terminal, which officially opens to customers on March 27, 2008, will offer unrivalled opportunities for British Airways to provide one of the most modern efficient airport facilities in the world.

Environment is at the heart of the design and construction of T5, and will continue to be an integral part of its operation.

Environmental action plans have been developed to manage key issues and meet the environmental planning conditions and public inquiry commitments.

These plans include:

• Investing £25 million in new vehicles and equipment to be delivered by March 2008. All vehicles are to the latest exhaust emission standards including 38 new buses to the future Euro 5 emission standard.

• Stricter start up and shut down times for the Auxiliary Power Unit (APU*) which will improve British Airways' noise performance and reduce carbon dioxide emitted.

• Recycling 85% of British Airways' construction waste and continuing to develop innovative ways of managing British Airways' waste during operation.

• Sourcing all timber used in British Airways' facilities from sustainably managed sources.

• Using a combination of non-potable water from rainwater harvesting and ground water to reduce the demand on the public water supply by 70%.

• Using waste heat from the existing airport heat and power station to supply 85% of T5's heat demand. Building management systems will ensure the most efficient energy usage in T5.

*An APU is a small engine located in the tail of an aircraft used to generate electrical power and supply air conditioning to the aircraft cabin whilst it is on the ground.

Making a difference

As well as protecting communities and the environment at home, we also have a global support network that reaches out to many distant countries and causes. Since 1984, the British Airways Community Relations programme has offered assistance to community and conservation projects around the world. Our support enables these projects to redirect crucial funds towards essentials such as equipment, education and sustainable development for the benefit of the environment and/or host community.

We actively support 130 community and conservation organisations worldwide, providing more than 1,000 tickets each year. These organisations are also able to benefit from excess baggage waivers and free cargo space.

In 2005 British Airways was awarded The Travel & Leisure Global Vision Award “In recognition of an organisation that is defending the cultural, ecological and historic treasures of the traveller’s world”.

Some of our partners include:

The Uganda Conservation Foundation, which works on a number of conservation projects including the “Elephants, Crops and People” project.

The Mountain Gorilla Conservation Fund, which is dedicated to ensuring the future of the Mountain Gorillas of Rwanda, Uganda and the Democratic Republic of the Congo.

Fauna & Flora International, which works to conserve threatened species worldwide, choosing solutions that are sustainable, based on sound science that take account of human needs.

For more information on the projects that we support, please click on the map on the Globally tab of our website www.ba.com/communityrelations.

The British Airways Community Learning Centre enables children to learn about our environment in the 240 acres of Harmondsworth Moor Parkland adjacent to our Head Office. Primary, secondary and special educational needs schools around Heathrow are able to explore various habitats such as meadows, rivers and woodland as part of a range of environmental education programmes that we offer. All programmes are cross-curricular and develop key educational skills. Local Community groups can also benefit from the Learning Centre by participating in programmes that focus on flight and the environment.

Case Study: Use of Forest Stewardship Council (FSC) timber.

In our lounges we have used oak and pear wood from Mahling and Wismann in Germany. The wood is FSC accredited, from the Spessart region of Northern Bavaria. The wood has been smoked and stained to give it a darker appearance using a process designed to have a neutral impact on the local environment. The factory produces zero waste and unusable timber off-cuts from the process are used to provide heat and hot water in the factory.

Case Study: Harmondsworth Moor

Harmondsworth Moor country park surrounds British Airways’ corporate headquarters near Heathrow. Comprising 240 acres of reclaimed land that had been neglected for many years, the park is now host to diverse flora and fauna. Fully open to the public, the park is managed to encourage both public usage and biodiversity. In recognition of its commitment to biodiversity at Harmondsworth Moor, British Airways is one of four companies to have been awarded the Wildlife Trusts prestigious Business and Biodiversity Benchmark award as well as the Civic Trusts Green Flag award, the national standard for parks and green space maintenance and management.