

From The Times

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BA uses own jets to examine effect of air travel on climate



Ben Webster, Transport Correspondent

British Airways aircraft are to be used to gather data about the hidden impact of air travel on climate change in research that could result in much higher environmental surcharges on tickets than expected.

The airline is supporting research by the University of Cambridge into the warming effects of condensation trails, nitrogen dioxide and other aircraft emissions.

The Intergovernmental Panel on Climate Change has estimated that the damage done to the climate by these emissions is between twice and four times greater than the impact of carbon dioxide alone.

It is relatively simple to calculate carbon dioxide emissions because they are related directly to fuel consumption. There is also broad scientific consensus about the contribution that carbon dioxide makes to climate change.

Much less is known about the effect of other emissions, although a study by a German aviation research institute found that the white trails often seen criss-crossing the sky could cause more climate damage than carbon dioxide. The trails broaden after about 30 minutes to form banks of cloud that prevent heat from escaping upwards, causing a greenhouse effect.

Nitrogen dioxide forms ozone, a greenhouse gas, when emitted at altitude.

BA is supporting the research because it is keen to present itself as the responsible face of the airline industry and hopes to overcome environmental objections to the construction of a new runway at Heathrow.

A BA spokesman said: "While research has given us a solid understanding of the effect carbon dioxide generated by flying has on the environment, the climate impact of our nitrogen dioxide emissions and other effects is less well understood. Recognising that these aircraft non-CO2 effects may be important, we are committed to improving scientific understanding in this area by supporting and engaging in research initiatives. We are looking at whether we can use our aircraft to assist in the collection of atmospheric data."

BA is also spending £50,000 on workshops organised by Cambridge University to identify gaps in knowledge and develop a plan ensuring that "scientific understanding of aircraft non-CO2 effects is robust by 2012".

Last month ministers from the European Union's 27 member states agreed to include all flights arriving

at or departing from EU airports in the European emissions trading scheme from 2012. But the scheme, in which companies buy and sell permits to pollute, only covers carbon dioxide emissions and is likely to add less than £6 to the average fare for flights within Europe and less than £25 to longhaul fares.

Were airlines required to pay for their other climate change emissions, the cost to the passenger could quadruple.

Jeff Gazzard, of the Greenskies Alliance, a coalition of environmental groups opposed to the expansion of air travel, said that the Cambridge research project should not be used as an excuse to delay taking action.

"We suspect that BA is trying to muddy the waters with this research. Sponsors of research tend to get the results that they are looking for," Mr Gazzard said.

Allowing airlines to buy carbon dioxide emission permits at the same rate as other industries could increase climate change because of the non-CO2 effects of flights, he added.

"Airlines and their passengers should stop cheating the planet and pay for all the environmental damage they are doing."

Professor John Green, a member of the aviation industry's Greener by Design group, which promotes technological solutions to environmental problems, said that condensation trails could be avoided by diverting aircraft around areas of cold, moist air — although, he added, this could result in greater consumption of fuel and could lengthen flights.

He called on Eurocontrol, the European body that oversees air traffic control, to study how aircraft could be routed to avoid forming trails without suffering an excessive fuel penalty.

BA also announced yesterday that it had made its voluntary carbonoffsetting scheme easier to use, with passengers able to offset their flight emissions in a single transaction when booking their ticket online. Under the scheme, passengers' donations will be used to support a wind farm in China and forest protection projects in Brazil.

Catch-22

- Aircraft condensation trails form cirrus cloud, which traps heat
- During the day the cloud may have a positive effect by reflecting the Sun's radiation. But at night it results in global warming
- Reducing cruise altitude by 6,000ft could reduce trails by 45 per cent but would increase fuel burn by 6 per cent
- Nitrogen dioxide forms ozone, a greenhouse gas, at altitude. Improving fuel efficiency — eg, by increasing burn temperature can increase nitrogen dioxide

Sources: Greener by Design; Times archives

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