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Addressing climate change – the way ahead for aviation

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Good afternoon, ladies and gentlemen.

On behalf of British Airways and the UK airline community, I am very pleased to contribute to this afternoon's seminar. Global warming is rightly being identified as one of the key environmental issues which the airline industry must address in the 21st century. There is no dispute between the industry and policy-makers on this side of the Atlantic on that issue. The key challenge is to find the right policy framework through which we can address the contribution of aviation to global warming, and I hope today's seminar will play a useful part in that process.

The scientific basis for action

Our starting point, as with all issues related to global warming, must be a sound scientific analysis of the problem. The most thorough and authoritative assessment of the impact of aviation on the global atmosphere remains the 1999 report by the Intergovernmental Panel on Climate Change (IPCC). That report brought together climate scientists and aviation industry experts, including many from the UK and key individuals from British Airways. The aim was to provide not only the best understanding of the current state of the science, and to make projections of the scale of the impacts to 2050.

In relation to the policy debate, there were two key findings from the IPCC report. The first was that while the contribution of aviation to global warming was currently small – about 2% of carbon dioxide and 3.5% of all man-made effects in 1992 – it was projected to grow quite dramatically. The central scenario in the IPCC report was that aviation's contribution would grow by a factor of 3.8 between 1990 and 2050. Though a large uncertainty range was put around this baseline growth figure, experience over the last decade suggests it is a reasonable estimate.

The second key finding of the IPCC report is that the contribution of aviation to global warming can be divided into two parts. The first is the emission of carbon dioxide, which is defined as a greenhouse gas in the Kyoto protocol and whose effects were relatively well understood by climate scientists. The second is a set of complex interactions in the upper atmosphere linked to the production of nitrogen oxides and the formation of contrails and clouds. These effects generated by aviation are not directly related to the emission of other greenhouse gasses by aircraft and they are likely to depend on the time and place of flights and weather effects.

These "upper atmosphere" effects were generally very poorly understood by scientists when the IPCC report was produced, and while there has been some further research since then, it is far from clear that our understanding is yet strong enough for this to be the basis of policy action. Designing appropriate instruments is

extremely difficult until there is a clearer scientific basis. A combination of measures may well be needed, combining technical improvements and operational changes. There may be a role for economic instruments, but it will be inefficient and ineffective for one country or region to act in isolation. The main emphasis in the short term should be on research to better understand these effects and how they might be mitigated.

The role of emissions trading

However, we have a much sounder scientific basis from which to address the carbon dioxide element of the climate change impact of aviation. For many years now, British Airways has supported the incorporation of aviation into an emissions trading scheme as the most economically efficient and environmentally effective way of limiting carbon dioxide emissions. Under such an emissions trading regime, the market will determine the cost of carbon necessary to meet the agreed target. Unlike a tax, where the level of tax needed to achieve the environmental objective is unclear, the environmental objective is assured by the overall cap on emissions.

If aviation was incorporated into a system of emissions trading, airlines would be required either to limit their emissions to an agreed cap or purchase reductions from other firms that were able to make bigger reductions than their targets implied. It is quite plausible that under such a regime, aviation will continue to grow – but it could only do so by neutralising the impact of that growth on the global atmosphere.

Another advantage of emissions trading is that it works with the grain of incentives, combining a “carrot” alongside the “stick”. Assuming a grandfathered system of allocation, firms that achieve the biggest reductions can gain by selling their permits into the market. This reinforces the financial incentive for investing in technology that will enhance emissions reductions.

Can it work?

Many people acknowledge the theoretical attractions of a system of emissions trading. But there are two questions we need an answer to before we can confidently proceed down this track.

The first is – can it work? Can we track the emissions from aircraft and allocate them within a system of targets and limits so there can be confidence that aviation is playing its part in limiting man-made global warming. To help answer this question – and to gain experience with emissions trading - British Airways joined the UK Emissions Trading Scheme (ETS) in 2001. We now have nearly two years’ experience of monitoring and reporting our emissions within that scheme. We have achieved the voluntary targets we committed ourselves to – achieving a 16% reduction in carbon dioxide on our 2002 baseline - and we have successfully traded emissions within other participating companies.

We recognise that the UK Emissions Trading Scheme only covers a small part of our total global warming impact. Because international aviation emissions are not included in the agreed Kyoto caps, the scheme can only include our domestic services and UK ground energy sources. Also, because it is a voluntary scheme, emissions growth by our competitors can offset the benefit from our reductions.

But there are a number of important lessons we have learnt from participating in the UK ETS First, there have been relatively few problems in tracking and reporting carbon dioxide emissions from aircraft, which are directly related to fuel burn. Reporting, monitoring and verifying should therefore be relatively simple for airlines and should not impose an onerous burden on the industry.

Second, our involvement in emissions trading has brought the environmental issue into the business mainstream inside British Airways. Emissions trading is managed alongside our regular fuel hedging activity, and through this process the understanding of the issue has greatly increased among finance professionals. The financial issues at stake have also increased the awareness of other business managers to the cost of increasing our emissions. Within our property team, it has supported a much stronger focus on fuel efficiency and network planners now take the emissions permit cost into account in their route development decisions on the domestic network. Emissions trading and global warming are discussed at our Board and executive Leadership Team in a way which would not otherwise have happened.

Can it be agreed internationally?

The second key question for the application of emissions trading within the aviation industry is – Can it be agreed internationally?

Here I know there is frustration in some quarters with the process within ICAO and the role that the United States is playing on climate change issues. However, the reality of the aviation industry is that two-thirds of the global output of airlines is generated either domestically in the United States or in journeys to or from the US. We need to find a way forward which the US can buy into over the longer term – even if it takes a little longer to get there. And an approach based on emissions trading – which is an efficient market mechanism - is far more likely to win US support than any other market-based approach.

Incorporating intra-EU aviation into the European Emissions Trading Scheme from 2008 could be a valuable step forward in demonstrating the practicality and the economic efficiency of this approach to a wider audience, particularly in the United States. By containing the coverage of the scheme to wholly intra-EU aviation, we should avoid wider problems of international legitimacy and emissions allocation, and provide ICAO with more time to come up with a robust framework. However, even if we are to move ahead within the EU, there are many practical issues to be addressed, including those discussed in Mike Clasper's presentation earlier this afternoon.

I would like to emphasise today that British Airways is fully committed to working with other stakeholders in the UK and across Europe to find a workable proposal for carbon dioxide generated by intra-EU flights to be brought within Europe-wide emissions trading as soon as possible. Indeed, I know many other airlines within the UK and across Europe support the same objective and we now need to go beyond talking about the principles to agreeing the practical details of how this might be achieved.

Other practical steps

In addition to actively working towards emissions trading within Europe, there are four other positive steps through which the aviation industry and policy-makers can take to help address the contribution of aviation to climate change:

- First, all parties in the aviation industry have a role to play in ensuring that we continue to drive for fuel efficiency and reduce unnecessary emissions. BA has committed itself to a 30% fuel efficiency improvement between 1990 and 2010, the first Kyoto commitment period, and we are already achieved more than three-quarters of the required improvement. We would encourage other airlines to make similar commitments and urge infrastructure providers – especially the Air Traffic Management systems – to play their full part in raising fuel efficiency and cutting down wasteful emissions.
- Second, any system of emissions trading will require a regime of monitoring and verification. BA reports its global warming emissions on an annual basis in our Social and Environmental Report and we would encourage other airlines to follow suit.
- Third, more research is needed to understand the upper atmosphere effects such as cloud and contrail formation which, according to some estimates, are considerably in excess of carbon dioxide in their global warming impact. The International Air Transport Association has already written to the IPCC to ask for an update of its 1999 assessment to help with this, but we are keen to engage with the research community to ensure that we are providing the maximum possible practical help in reducing the uncertainty around the science in this area.
- Fourth, we need to start planning now for the way in which aviation will be treated in the global targets set beyond the Kyoto commitment period. We need to avoid the situation which arose at Kyoto where the international aviation emissions could not be allocated, which has greatly complicated the process of including aviation in broader international initiatives to combat climate change, such as emissions trading.

Conclusion

British Airways supports the view that the expansion of the aviation industry must be environmentally responsible. This includes ensuring that future growth of aviation is compatible with a continued global reduction in greenhouse gas emissions, either within the aviation industry or by funding reductions in other industries.

For the foreseeable future, the most effective policy action is likely to be the incorporation of aviation into an international system of emissions trading for carbon dioxide, initially at EU level and subsequently at a global level. British Airways is fully committed to working to establish a workable approach to emissions trading for intra-EU aviation, building on our experience in the UK Emissions Trading Scheme. And we look forward to working with other stakeholders towards that common objective.

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