

The International Challenge of Climate Change: Environmental Audit Committee Inquiry

Memorandum by BAA plc

1. Introduction

- 1.1. BAA is the world's leading airports operator. In the UK, BAA owns, develops and operates seven airports: Heathrow, Gatwick, Stansted, Southampton, Edinburgh, Glasgow and Aberdeen. Overseas we either manage contracts at, or have interests in, airports in the USA, Australia and Italy.
- 1.2. This submission focuses on the areas of the Committee's interest where BAA's expertise can add most value, particularly the incorporation of aviation into emissions trading at a European and global level and the objectives that the UK should pursue in its EU and G8 Presidencies to help deliver that goal.

2. Summary

- 2.1. In keeping with the emphasis placed by a sustainable development framework on policy integration, the debate on aviation needs to recognise both the realities of environmental limits and aviation's socio-economic benefits.
- 2.2. At a European level, BAA has two main interests in climate policy: we are a major energy user and a major player in the aviation industry. We are committed to making a significant contribution to reducing greenhouse gas emissions arising from energy use at our seven UK airports, by reducing our total CO₂ emissions by 15% over 1990 levels by 2010.
- 2.3. BAA has played a leading role in the debate over aviation's climate impacts and supports the UK Government's leadership position on climate change. BAA recognises the importance of effective international action to address this issue. We support the delivery of targets adopted by Governments within the framework of the Kyoto Protocol, and favour the mainstreaming of all aviation within EU public policy on climate change, noting that at present only climate change emissions by airports and domestic air transport are included within the Kyoto targets; international air transport emissions are not currently included.
- 2.4. Industrial climate change impacts are most effectively dealt with by harnessing market mechanisms and corporate self-interest, where possible, since these are powerful drivers and are likely to produce faster, better results than blunt regulation. BAA rejects policy approaches for aviation which are aimed simply at reducing demand by raising the cost of flying through taxes and charges, the revenue from which simply flows to Government and is not hypothecated to addressing the impacts. The right approach, as in all industries, is to target the impacts of the activity, rather than the activity itself. We recognise that the consequence of a regime of smart, well-targeted instruments for aviation may be higher costs and reduced demand.
- 2.5. EU-level action can provide an effective interim policy response, as a first step towards the development of more co-ordinated global frameworks. In particular, we believe that partial integration of intra-EU flights with an environmentally-credible EU Emissions

Trading Scheme (where airlines can buy EU emissions allowances from the open EU market, but not sell to that market) is deliverable by 2008, and that full integration (where both buying and selling are allowed) is achievable by 2013. We very strongly support the UK Government's stated objective to make aviation's incorporation into the EU ETS a priority for its 2005 Presidency.

- 2.6. In this context, we welcome the recent statement by the ICAO General Assembly that ICAO has not ruled out the EU pursuing action on emissions trading at a European level prior to ICAO developing guidance on this issue at an international level. We welcome the role played by the UK Government in negotiating the ICAO statement and ensuring that freedom to act on climate change was not restricted at a regional level prior to global consensus being reached.
- 2.7. We also acknowledge the IPCC assessment that aviation's total climate impact is some 2.7 times that due to CO₂ alone, due mainly to the climate-warming effects of NO_x and water vapour emissions (contrails) in the atmosphere and to cirrus cloud enhancement effects. We are not in a position to comment on the robustness of this assessment, noting the scientific uncertainty relating to elements of it, particularly the extent of the contrail and cirrus impacts. However, we accept that aviation should address its total climate change impacts and we would welcome greater clarity on the elements which are currently scientifically uncertain. We also urge a smart, targeted approach to addressing aviation's climate impacts, which may require a mix of measures, to avoid unintended consequences of a measure adopted to tackle one impact (CO₂) leading to increases in another (NO_x), where there is a known technological trade-off.
- 2.8. BAA has therefore suggested that, for the 2008-2012 phase, aviation should be linked with EU emissions trading on the basis of both aircraft CO₂ and NO_x emissions. Provided airlines were prevented from selling Aviation Allowance Units into the open EU trading market, the targeting of both CO₂ and NO_x would not compromise the EU Emissions Trading Scheme's compatibility with the Kyoto Protocol.
- 2.9. From 2013, BAA would also like to see aviation's contrail and cirrus impacts directly, separately, and fully integrated into EU emissions trading. BAA would therefore welcome and support UK and EU leadership on the international climate change negotiations for the 2nd commitment period ("Kyoto 2"), due to begin in 2005, to:
 - Prioritise the full legal allocation of international aviation's climate change impact to country governments. While negotiations need to begin soon, the legal allocation could take effect from 2013, so as not to put legal compliance with the "Kyoto 1" budget period at risk.
 - Prioritise the legal designation of aviation's non-CO₂ impacts, as a step towards enabling their direct and separate integration within EU/international emissions trading from 2013.
 - Prioritise investment in scientific research, including on the development of a predictive system capable of assessing the contrail and cirrus impact of any given flight. Such a system would be necessary to enable the smartest possible direct and separate integration of aviation's cirrus and contrail impact within EU/international emissions trading from 2013.
- 2.10. Linking intra-EU flights with EU emissions trading must be seen as a first step towards including all aviation within a global system of open emissions trading addressing aviation's total climate change impact. As such, we welcome the recent decision by Russia to begin the process of ratifying the Kyoto Protocol. Russian ratification will mean that

Kyoto enters into force and will add political momentum to the negotiations over the Kyoto 2 compliance period, which are due to begin in 2005. BAA also welcomes the UK Government's declared intention to use its Presidency of the EU and G8 to press for further international progress on the climate change agenda. We hope that both of these developments will lead to non-EU nations taking a more constructive, international approach to resolving the issue of aviation's climate change impacts.

3. Context: BAA's approach to sustainable development

3.1. BAA is committed to continuing to understand and improve its performance with respect to sustainable development. Like many companies we work within the UK Government's policy approach which entails meeting four objectives at the same time:

- maintenance of high and stable levels of economic growth and employment
- social progress which recognises the needs of everyone
- prudent use of natural resources
- effective protection of the environment

3.2. As identified in BAA's Sustainable Development Policy¹, we also recognise that other stakeholders define the concept of sustainability in terms of the capacity of the natural environment to accommodate social and economic growth into the future. In this context we believe it is important that choices about how best to control the impacts of social and economic activity should be made with the widest public support. We see this as a dynamic and continuous process of change and negotiation, the objective of which is to find solutions which provide the most benefit for society overall.

3.3. Responsible air transport and airport growth should take place only where it is in accordance with the sustainability objectives above. BAA further accepts that there are certain known environmental limits, such as the earth's capacity to handle greenhouse gases, which demand a clear and specific response (discussed in more detail below).

3.4. However, in keeping with the emphasis placed by a sustainable development framework on policy integration, the debate on aviation needs to recognise both the realities of environmental limits and aviation's socio-economic benefits. Economically, aviation plays a crucial role in promoting the high-knowledge and high-value-added industries, such as electronics, pharmaceuticals, insurance, and finance. Socially, air travel is a facilitator – for people to visit friends and family scattered around the world, to seek new cultural experiences, to learn, to visit parts of the world inaccessible to their parents or grandparents. Sustainable development rightly places emphasis on improving quality of life for all. In this context, the fact that aviation is now accessible to most people, at least in the more prosperous countries, is both significant and welcome.

3.5. BAA regards policy integration as fundamental, and we therefore reject approaches to tackling aviation's environmental impacts which are aimed simply at reducing demand by raising the cost of flying through taxes and charges. However, we do recognise that the consequence of a regime of smart, well-targeted instruments may be higher costs and reduced demand. Nevertheless, we strongly believe that each environmental impact should be targeted individually, with the objective of reducing or mitigating its impact, using the most effective policy instrument. That could be a planning condition, local or national regulation, economic instruments or voluntary action. Where the policy tool is an economic instrument, any payment should be proportionate to the scale of the impact and

¹ BAA Sustainable Development Policy, October 2003. See: http://www.baa.co.uk/main/corporate/sustainable_development/our_policies/sustainable_development_policy_frame.html

the revenue raised should be used to reduce the impacts. This approach – of targeting the impacts rather than the activity – is the right approach to demand management.

4. EU measures to address aviation's climate impact: 2005-2012

4.1. In this section we focus in particular on the incorporation of aviation within the EU ETS. We fully support the Government's goal to incorporate aviation by 2008 and believe that it should be a major focus of the UK's 2005 EU Presidency. In Section 5 of our evidence we focus on EU policy post 2012, and in Section 6 on the international framework to succeed Kyoto and in particular on the role of international emissions trading systems, which is a key focus of the Committee's Inquiry.

4.2. BAA has two sets of interests in EU climate change policy. We have substantial energy interests, as one of the UK's top 20 consumers of industrial energy, and are also a major player within the aviation industry.

4.3. BAA supports the leading role that the UK Government and has played on climate change position on climate change and recognises the importance of effective international action to address this issue. BAA notes the EU's publicly stated long-term climate change policy objective:

“a long-term objective of a maximum global temperature increase of 2° Celsius over pre-industrial levels... In the longer term this is likely to require a global reduction in emissions of greenhouse gases by 70% as compared to 1990, as identified by the Intergovernmental Panel on Climate Change (IPCC)”²

4.4. BAA supports the delivery of targets adopted by Governments within the framework of the Kyoto Protocol and we are committed to making a significant contribution to reducing greenhouse gas emissions arising from energy use at our seven UK airports. Our aim is to reduce absolute CO₂ emissions from energy consumption by 15% by 2010, compared to 1990 levels. This objective is particularly challenging in the face of passenger numbers rising substantially over the same period and represents a step change in targets from the company's previous commitment of a five per cent reduction on 1990 levels. BAA has also registered three sites for inclusion in the EU Emissions Trading Scheme from January 2005, and would like to register a fourth site (Terminal 5) for entry into the scheme during 2005/6.

4.5. As a major player within the aviation industry, we favour the mainstreaming of all aviation within EU public policy on climate change, noting that at present only climate change emissions by airports and domestic air transport are included within the Kyoto targets; international air transport emissions are not currently included.

4.6. While aviation's current climate impact is significant (11% of the UK's total climate impact), it is nevertheless still smaller than the climate impact arising from other sectors of the economy, such as power generation (29% of UK's total climate impact in 2000). However, BAA recognises that aviation's climate impact is set to grow, and grow significantly, while a UK economy-wide total reduces in line with the requirements of the earth's global environmental capacity, and that, in line with the precautionary principle, aviation must accept its responsibility to address the climate effects of this growth. In addition, as recognised by Governments at the Johannesburg Sustainable Development Summit, the priority to meet key human development needs such as clean water, food, and sanitation (in both developed and developing countries) will rightly use up a significant proportion of the earth's environmental capacity.

² Article 2, the 6th EU Community Environment Action Programme, adopted in co-decision in 2002

- 4.7. There is a powerful economic and social case for aviation to take up some of the remaining capacity, given the absence of short-term technological solutions within the aviation sector, compared with the availability of solutions in other sectors of society. Importantly, this would only be permissible by users of aviation paying for emissions reductions (clean development) in other economic sectors – in developed countries, in transition economies, or in developing countries.³
- 4.8. Industrial climate change impacts are most effectively dealt with by harnessing market mechanisms and corporate self-interest, where possible, since these are powerful drivers and are likely to produce faster, better results than blunt regulation. BAA rejects policy approaches for aviation which are aimed simply at reducing demand by raising the cost of flying through taxes and charges, the revenue from which simply flows to Government and is not hypothecated to addressing the impacts. We believe the right approach, as in all industries, is to target the impacts of the activity, rather than the activity itself. We recognise that the consequence of a regime of smart, well-targeted instruments for aviation may be higher costs and reduced demand.
- 4.9. Effectively addressing climate change requires action at all levels – local, regional, national, EU and international. While climate change is a global problem and unified global action is the ideal, BAA recognises that regional political and trade blocs such as the EU have a key role in shaping public policy on climate change, and BAA is pleased that the EU is engaging seriously and constructively on the issue of aviation and climate change. In particular, EU-level action can provide an effective interim policy response prior to the development of more co-ordinated global frameworks.
- 4.10. The UK aviation industry, most notably BAA and BA, has led the EU debate on aviation's climate change impacts and obligations, and BAA believes that industry co-operation should be built on by policy-makers and Governments.
- 4.11. EU-level action can provide an effective interim policy response, as a first step towards the development of more co-ordinated global frameworks. We believe that the EU is an appropriate level for action, since unilateral action by individual EU Member States would raise market distortion and competitiveness issues. We believe that action on aviation at an EU level is a priority between the launch of the ETS in January 2005 and the beginning of its second phase in 2008.
- 4.12. In this context, we welcome the recent statement by the ICAO General Assembly that ICAO has not ruled out the EU pursuing action on emissions trading at a European level prior to ICAO developing guidance on this issue at an international level. We welcome the role played by the UK Government in negotiating the ICAO statement and ensuring that freedom to act on climate change was not restricted at a regional level prior to global consensus being reached.
- 4.13. Partial integration of intra-EU flights with an environmentally-credible EU Emissions Trading Scheme (where airlines can buy EU emissions allowances from the open EU market, but not sell to that market) is deliverable by 2008, and that full integration (where both buying and selling are allowed) is achievable by 2013.
- 4.14. An environmentally-credible emissions trading scheme should embrace a number of key principles, and these should guide EU public policy on addressing aviation's climate

³ The Kyoto Protocol (KP) provides for three 'flexibility mechanisms', to assist Annex B countries (those taking on legally binding emissions reduction targets) to deliver against their targets. These flexibility mechanisms are: Joint Implementation (article 6 of the KP), the Clean Development Mechanism (article 12 of the KP), and Emissions Trading (article 17 of the KP). It is recognised that the JI and CDM mechanisms will help facilitate clean development in transition economies and developing countries.

change impacts. These principles include deliverability, environmental effectiveness, economic efficiency and equity.

- 4.15. As such, BAA very strongly supports the UK Government's objective to try to extend the EU Emissions Trading Scheme, by linking intra-EU flights within the scheme by 2008, and we welcome the Government's intention to make this a priority for the UK's EU presidency in 2005. This will help to bring aviation within the club of climate-responsible industries. All intra-EU flights should be linked with the EU Emissions Trading Scheme, irrespective of the nationality of the airline (including EU and non-EU airlines).
- 4.16. We also acknowledge the IPCC assessment that aviation's total climate impact is some 2.7 times that due to CO₂ alone, due mainly to the climate-warming effects of NO_x and water vapour emissions (contrails) in the atmosphere and to cirrus cloud enhancement effects. We are not in a position to comment on the robustness of this assessment, noting the scientific uncertainty relating to elements of it, particularly the extent of the contrail and cirrus impacts. However, we accept that aviation should address its total climate change impacts and we would welcome greater clarity on the elements which are currently scientifically uncertain. We also urge a smart, targeted approach to addressing aviation's climate impacts, which may require a mix of measures, to avoid unintended consequences of a measure adopted to tackle one impact (CO₂) leading to increases in another (NO_x), where there is a known technological trade-off.
- 4.17. BAA has therefore suggested that, for the 2008-2012 phase, aviation should be linked with EU emissions trading on the basis of both aircraft CO₂ and NO_x emissions. Provided airlines were prevented from selling Aviation Allowance Units into the open EU trading market, the targeting of both CO₂ and NO_x would not compromise the EU Emissions Trading Scheme's compatibility with the Kyoto Protocol. It should be noted that this is true even though NO_x is not yet legally designated as a greenhouse gas within the Kyoto Protocol basket.

5. EU measures to address aviation's climate impact post-2012

- 5.1. From 2013, BAA would also like to see aviation's contrail and cirrus impacts directly, separately, and fully integrated into EU emissions trading. BAA would therefore welcome and support UK and EU leadership on the international climate change negotiations for the 2nd commitment period ("Kyoto 2"), due to begin in 2005, to:
 - Prioritise the full legal allocation of international aviation's climate change impact to country governments. While negotiations need to begin soon, the legal allocation could take effect from 2013, so as not to put legal compliance with the "Kyoto 1" budget period at risk
 - Prioritise the legal designation of aviation's non-CO₂ impacts, as a step towards enabling their direct and separate integration within EU/international emissions trading from 2013
 - Prioritise investment in scientific research, including on the development of a predictive system capable of assessing the contrail and cirrus impact of any given flight. Such a system would be necessary to enable the smartest possible direct and separate integration of aviation's cirrus and contrail impact within EU/international emissions trading from 2013
- 5.2. BAA understands that the balance between auctioning and free allocation of emission allowances (eg by grandfathering against historical or future projected emissions levels) is a key issue to Government, industry, and NGOs. BAA believes the key issue here is one

of equitable integration alongside other business sectors within the emissions trading regime.

- 5.3. In this context, BAA notes that, under the provisions of the EU Greenhouse Gas Emissions Trading Directive, EU Member State Governments will be allowed to auction up to 5% of emission allowances from 2005, and up to 10% of emission allowances from 2008. The remainder will be given away free of charge, within the framework of the National Allocation Plans. It is important that, as far as practicable, aviation receives equitable treatment alongside other participants in emissions trading. BAA would also welcome discussion on the potential for other transport modes to be incorporated into EU/international emissions trading frameworks.
- 5.4. Consistent with the principle of equitable integration, aviation should be given equitable access alongside other business sectors to emissions reduction opportunities in transition economies and developing countries. Accordingly, BAA would like to see aviation, as far as practicable, granted equitable access to the Clean Development Mechanism (CDM) and Joint Implementation (JI) flexibility mechanisms of the Kyoto Protocol. BAA notes that the European Commission has already published a proposal for a Directive linking the EU emissions trading regime to the CDM and JI flexibility mechanisms, and understands that the link is expected to increase market liquidity⁴.
- 5.5. All industries should meet the external costs of their activities – but only once. Therefore, once smart, effective policy instruments (such as the EU Emissions Trading Scheme), which are targeted at reducing aviation's specific impacts, enter into force and cover aviation's external costs over time, the existing blunt instruments, such as the UK Air Passenger Duty (APD), should be phased out, as they are currently intended to capture some or all of aviation's external costs.
- 5.6. We strongly oppose alternative policy instruments of blunt taxes and charges, where the revenue raised flows into the public purse for general government expenditure and is not exclusively and entirely hypothecated to purchasing emissions reductions in other parts of the economy. Such instruments offer limited positive environmental benefit, impact negatively on competitiveness, and essentially act to tax away demand and the positive benefits that aviation brings.

6. International measures to address aviation's climate impact

- 6.1. The debate is moving in the right direction in the EU. The EU should continue to focus on the wider international arena and that linking intra-EU flights with EU emissions trading must be seen as a first step towards including all aviation within a global system of open emissions trading. At an international level, we welcome the recent decision by Russia to begin the process of ratifying the Kyoto process. Russian ratification would mean that Kyoto enters into force and would build political momentum around the negotiations over Kyoto 2. Parallel pressure should continue to be brought by EU member states on the US and other non-EU regions across the whole climate change agenda, including on aviation.
- 6.2. BAA welcomes the UK Government's declared intention to use its Presidency of the G8 to press for further international progress on the climate change agenda, and hopes that this will lead to non-EU nations taking a more constructive, international approach to resolving the issue of aviation's climate change impacts.

⁴ CEC COM(2003) 403 final, 23 July 2003

- 6.3. BAA also recognises the valuable role played by the International Civil Aviation Organisation (ICAO) in facilitating the exchange of information and in the provision of guidance, both on environmental matters and more widely. We note that the recent ICAO General Assembly which in October 2004 agreed to continue to endorse the role of emissions trading as part of a package of measures to address aviation's environmental impact and to provide guidance on how an international system might function.
- 6.4. We are aware that many stakeholders emphasise the practical difficulties in delivering aviation's integration in international emissions trading and that some even perceive the industry's interest in emissions trading as a ploy for postponing the day when aviation will have to deal with climate change. In particular, aviation's special treatment under the Kyoto Protocol is often highlighted. In this context, we note that a range of stakeholders strongly challenge the credibility and practical feasibility of legally allocating international aviation emissions to ICAO.
- 6.5. BAA's interest is in promoting aviation's integration in an environmentally effective, deliverable emissions trading regime at the earliest opportunity. In this context, we suggest, as noted in the preceding section, that international aviation emissions should be legally allocated to existing "Kyoto Parties" (ie country governments), as is normal procedure for greenhouse gas emissions from other sectors of society. We welcome the work within UNFCCC and, more specifically, SBSTA, the UNFCCC subsidiary body on scientific and technical advice, to consider how best to allocate international aviation emissions.
- 6.6. BAA's position is driven both by pragmatism for early action and a desire to see aviation mainstreamed within the international climate change negotiations, to improve the likelihood of aviation receiving equitable treatment with other business sectors. So long as aviation is positioned as receiving special treatment, we believe the risk of UK/EU blunt taxation is heightened.
- 6.7. However, if it could be robustly demonstrated that legal allocation of international aviation emissions to ICAO would deliver aviation's rapid participation in emissions trading on terms that are both environmentally credible and provide for aviation's equitable treatment with other business sectors, we would be prepared to give further consideration to this aspect of the aviation/climate change debate.
- 6.8. For wider international aviation, in order to get broad international agreement, emissions trading should begin with CO₂ and move towards addressing total climate change impact as quickly as possible over time. Long term, BAA would like to see all aviation inside a global emissions trading system covering total climate change impact.
- 6.9. In context of moving towards effective global action, BAA would underline the need to engage the US in the debate over climate change, including in relation to aviation's climate change impact. In this context, the following suggestions are therefore offered, not as fully formed proposals, but as ideas to stimulate further debate:
- Payment of a proportion of APD in the currency of emissions allowances. This would hypothecate part of the current revenue in such a way as to guarantee climate change benefit.
 - A two-tier approach to APD – i.e. a higher and lower rate – with those international flights generating a substantially reduced contrail and cirrus impact eligible for the lower rate.

6.10. As with intra-EU aviation, the integration of wider international aviation within emissions trading should be, as far as practicable, on an equitable basis with other participants in the trading regime. This is an important point generally, and more specifically in relation to the extent of emission allowance auctioning and access to the Clean Development (CDM) and Joint Implementation (JI) flexibility mechanisms.

7. Conclusions

7.1. Aviation has a small, but significant and growing impact on climate change, and this must be addressed.

7.2. Aviation should be brought within the mainstream of industry and climate change policy within the UK and the EU, as quickly as practicable. The most effective way of achieving this is for intra-EU flights to be linked with the EU Emissions Trading Scheme from 2008.

7.3. EU policy to address aviation's climate change impacts is a welcome and necessary first step to global solutions, but the UK Government and the EU must vigorously pursue this agenda internationally through the G8 and other bodies.

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