



The Government's Response to  
the Environmental Audit  
Committee's Report  
on Budget 2003 and Aviation



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Presented to Parliament by the  
Secretary of State for Transport  
by Command of Her Majesty  
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# THE GOVERNMENT'S RESPONSE TO THE ENVIRONMENTAL AUDIT COMMITTEE'S REPORT ON BUDGET 2003 AND AVIATION

## INTRODUCTION

The Environmental Audit Committee's Ninth Report of Session 2002-03 records the Committee's findings and recommendations following its Inquiry into Budget 2003 and Aviation in the Summer of 2003.

The Government today publishes its air transport White Paper which sets out its policies for the future development of aviation, looking ahead over the next 30 years. The White Paper addresses many of the issues raised in the Committee's Report. In this response, the Committee's recommendations are cross-referenced where appropriate to relevant material in the White Paper

Below we set out the Government's response to each of the Committee's specific recommendations.

## RESPONSE TO RECOMMENDATIONS

**1. We regard the proposed growth in emissions into the atmosphere by the aviation industry as unsustainable and unacceptable. Were such growth to occur, it could totally destroy the Government's recent commitment to a 60% cut in carbon dioxide emissions by 2050. (Paragraph 17)**

The Government is committed to taking a lead in tackling the problem of climate change, and to putting the UK on a path towards reducing CO<sub>2</sub> emissions by some 60% from current levels by 2050. International flights from the UK do not currently count in the national inventories of greenhouse gas emissions as there is no international agreement yet on ways of allocating such emissions. However, the Government's Energy White Paper<sup>1</sup> makes it clear that we should ensure that the aviation industry is encouraged to take account of, and where appropriate reduce, its contribution to global warming. The aviation sector needs to take its share of responsibility for tackling this problem. In Chapter 3 of *The Future of Air Transport* White Paper we describe the measures which the Government proposes to take to ensure that growth is compatible with our commitment to sustainable development and our environmental objectives.

For example, the DTI's Aeronautics Research Programme continues to support the development of technologies that will contribute to improving civil aviation's environmental performance. In addition, Government-sponsored research into the impact of aviation emissions will reduce the uncertainties relating to their climate and local air quality effects, such that possible international solutions, appropriate for this largely international industry, can be developed for the long term.

In particular, the Government actively supports the inclusion of aviation into the EU Emissions trading scheme. This would create a mechanism for the integration of aviation emissions into the overall carbon policy framework. The Government is also considering options for the development of other economic instruments in this area, in line with our commitment to internalising environmental costs. The Government will continue to explore and discuss options for the use of other economic instruments for tackling aviation's greenhouse gas emissions (White Paper, para 3.42).

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<sup>1</sup>Our energy, our future – creating a low carbon economy, Cm 5761, February 2003.

**2. In emphasising the economic and social objectives for airports, the Department for Transport is placing a lower priority on environmental objectives and is focused more on mitigating the environmental impacts rather than avoiding them where possible. (Paragraph 19)**

The Government recognizes the need to strike a balance between the social and economic benefits of air travel and the environmental impacts, in line with the principles of sustainable development — development which meets the needs of the present without compromising the ability of future generations to meet their own needs. The White Paper (para 2.14) states that ‘we have to recognize that simply building more and more capacity to meet potential demand would have major, and unacceptable, environmental impacts, and would not be a sustainable approach’.

This approach — and the means for achieving it — are set out in Chapter 3 of the White Paper. The Government agrees that ‘prevention is better than cure’ where possible and the policies we have set out reflect this. As set out at para 3.6 of the White Paper, at a local level this applies particularly to noise, local air quality, landscape, built heritage, and the environmental effects of surface access.

**3. We are concerned that the Department should have released a major consultation which assumes that passenger numbers will increase by 4% every year for thirty years and that fares will decrease by up to 40% over the same period without a far more extensive discussion of the underlying implications of such assumptions. (Paragraph 24)**

While acknowledging the uncertainties involved in making long term forecasts, the Government believes that its forecasts represent a reasonable assessment of future demand for air travel and are based on the Department’s most recently published air traffic forecasts. We are confident that, our most recent demand forecast of 500 mppa in 2030, assuming airport capacity is accommodating, is robust. (The assumptions underlying the air transport forecasts are detailed in Annex A to that report.)

However, the Government considered the anticipation of increased air travel as part of the consultation process — in the context of various scenarios of capacity and environmental constraint — and in drawing up the policies set out in the White Paper. We also recognise that the projections were based on assumptions, which may change. The Government therefore considers that it is essential to keep its forecasts under review, to monitor the effects of its policies on demand, and to be ready to revise them as necessary. The consultation process as a whole, proceeding from these forecasts, was indeed focused upon the implications of these forecasts.

The Government recognises that these forecasts are sensitive to changes in underlying costs and resulting changes in prices. The Government’s policy is that the environmental costs of aviation should, over time, be internalized. The inclusion of aviation into the EU emissions trading scheme will go some way to tackling this.

**4. In the case of roads, the Government does seem finally to have accepted the need for some form of congestion charging or road pricing framework. Yet the Secretary of State for Transport entirely refused to accept that, in the case of aviation, congestion may need to be dealt with in a similar way. We were astonished that he denied there was any parallel in this respect between road transport and aviation. He re-iterated his opposition to ‘pricing people off planes’ and the frequency with which he used this phrase reinforced our perception that the Department for Transport is little interested in sustainability. (Paragraph 27)**

Aviation causes two main types of congestion: aircraft congestion at airports and in the skies, and surface traffic congestion around airports. Access to runways is directly controlled by agreement between airlines and NATS, through the number of available slots and then by slot allocation under European law. This is different from roads where there is no way of directly controlling access; so road journey costs, including congestion, determine the amount of traffic and bring demand into line with supply. This is not efficient in economic terms and research has suggested that congestion costs are over three quarters of the full external costs of road traffic (with climate change costs at less than 5%). Because the use of runways and airport facilities is administratively determined, this is not the case with aviation, so external congestion costs for aviation will be much lower.

The costs of aircraft congestion at airports and in the skies are largely borne by other air users who pay higher air fares than would otherwise be the case and are to some extent within the control of the regulatory regime for airports and slot allocation. For example, at Heathrow capacity has been below demand for many years, leading to higher fares and disbenefits for both passengers and the UK economy.

**5. In our view the Government should aim to decouple growth in air travel from economic growth – as it has been attempting to do for roads. To achieve this, it must be willing to use a range of fiscal and other policy tools to manage behaviour. This might go well beyond the need to incorporate cost externalities – as indeed the Government has accepted in the case of waste. (Paragraph 28)**

We expect the growth of air travel to decline over time as markets mature. The Government does not accept that it should seek to manage demand beyond what is required by the principle that the polluter should pay and that aviation should meet its external costs, including environmental costs. However, the Government does accept that a balance needs to be struck between the demand for increased capacity and its environmental impacts and that a range of policy tools will be required to deal with environmental disbenefits. Measures for addressing the environmental consequences of aviation are set out in Chapter 3 of *The Future of Air Transport White Paper*.

**6. We regard the absence of concise, transparent and strategic integrated appraisals as a major weakness in the consultation documents. The Department's failure in this respect conflicts with its own guidance. As a result it is impossible to assess the overall benefits of different degrees of expansion – or the relative benefits and disbenefits of regional expansion vis-à-vis expansion in the South East. (Paragraph 33)**

The Government does not accept that its own guidance has been disregarded in the consultation. Summary strategic appraisal tables were published in the regional consultation documents or in supporting documentation (July 2002).

The overall benefits and disbenefits of different degrees of expansion, and of different options for the location of expansion, both in the South East and other regions, are set out clearly in the regional consultation documents. The number of possible permutations, however, meant that it was not practical to provide a single table setting out all the impacts at every airport for comparative purposes.

The Appraisal Framework for SERAS (Airports in the South East and Eastern Regions of England) was published in November 2000, following consultation with stakeholders. The basic approach underlying the framework has also been applied to the study of options for the development of airports in other parts of the UK. It follows the approach in the then DTLR's Guidance on Methodologies for Multi-Modal Studies (GOMMMS), which sets out the Government's five objectives for transport investment – safety, economy, environment, accessibility and integration. The appraisal framework also covered issues that went beyond the GOMMMS objectives, such as commercial viability. The approach involves using indicators which are a mix of monetary values, physical units, and non-quantified elements.

As the published appraisal framework for SERAS makes clear, the weighting of the various factors (in the economic, environmental and social categories) in final decisions is a matter for Ministers. That is true throughout the transport area and has long been accepted as legitimate and proper for Ministers to determine, in strategic decisions of this kind. The weighting put on each consideration is clear in the decisions set out in *The Future of Air Transport* White Paper, as are conclusions on the relative benefits of expansion in the South East and in other parts of the UK.

The environmental impacts of individual expansion proposals will be assessed in more detail as they go through the required planning processes.

**7. It is disappointing that neither the Treasury nor the Department for Transport has conducted any recent analyses of the overall economic impact on the UK of the aviation sector, and in particular an analysis of the growth in aviation which is proposed. (Paragraph 38)**

The Government's assessment of the economic impact of increased airport capacity is based on the direct benefits to air passengers. The largest element of this is the benefits to passengers who otherwise would not travel at all or would have to travel to less-preferred airports in the absence of additional airport capacity. There are also likely to be some wider benefits not fully captured by these direct benefits to passengers, but these have not been included because of uncertainties about the size of the benefits from available studies. The issues surrounding the assessment of wider benefits were set out in paragraphs 14.32 to 14.37 of the *Future Development of Air Transport: South East*<sup>2</sup> consultation document.

**8. In the absence of a robust evaluation, we are astonished at the overt bias the Department for Transport has displayed by emphasising so consistently the economic benefits of aviation. It is disturbing, for example, that the consultation document quotes figures for the positive economic benefits of tourism but entirely fails to mention that there is an overall substantial negative balance of £15 billion. (Paragraph 39)**

The Government is satisfied that the approach used to estimate the direct economic benefits of airport capacity increases is robust. The number of UK tourists travelling abroad is almost double the number of foreign visitors to the UK, so it is not surprising that more is spent by Britons travelling abroad than by foreign visitors to the UK. Paragraph 14.37 of the SERAS consultation document notes that if capacity is provided to meet increased demand, the higher number of inbound tourists coupled with their higher average expenditure per head could bring total expenditure levels broadly into line. On the other hand, if aviation capacity is restricted, foreign residents are likely to switch to lower cost destinations, resulting in a widening of the tourism deficit. Above all, this is not simply a narrow sectoral trade balance issue as the opportunity to travel abroad enhances people's quality of life. It is stating the obvious that UK residents have a liking for holidays in sunnier climes.

**9. The Department for Transport has failed to follow guidance issued by the Treasury by including in its economic appraisal the benefits accruing to foreign travellers. In doing so, it has significantly distorted and overstated the economic benefits of different expansion options. (Paragraph 42)**

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<sup>2</sup>Second edition.

The Government does not accept this. The inclusion of benefits accruing to foreign travellers is consistent with the Green Book guidance (paragraph 5.25 and footnote 4). If anything, the economic benefits have been underestimated. For example, they do not include benefits to passengers and airlines from reducing delays; the increased costs as a result of demand at Heathrow and Gatwick being currently suppressed; nor the benefits to international connecting passengers. In addition, indirect benefits to the economy from lower business costs, additional foreign investment and tourism are only partially captured by the direct economic benefits. The economic benefits of the proposals are also higher than the original estimates as a result of applying the revised Treasury Green book discount rate of 3.5% rather than 6%.

**10. The net present value associated with the increase in the cost of aviation emissions amounts to minus £18 billion. Including this amount would entirely wipe out the economic case for an expansion in runways and result in substantial net deficits for almost all the options the Department for Transport has put forward. Expansion could therefore only be justified if the Department could demonstrate wider economic benefits – which it has not attempted to do. (Paragraph 52)**

The Committee's conclusion appears to be based on a misunderstanding of the figures. Economic benefits from three additional runways in the South East amount to in excess of £30 billion NPV for some options, which can be compared with the NPV of the associated additional global warming cost of £4 to 5 billion. Hence, the main airport development options would generate very large incremental net economic benefits even after account is taken of the additional environmental costs. The climate change costs in these calculations used the central value for the cost of carbon in *Estimating the Social Cost of Carbon Emissions*, GES Working Paper 140, 2002.

**11. The Department should voluntarily comply with the EU Strategic Environmental Assessment [SEA] Directive immediately, following the example of Department of Trade and Industry, which is already doing so. (Paragraph 52)**

The Government supports the principles of strategic environmental assessment. Its appraisal approach was broadly consistent with the aims of the SEA Directive, which it intends should be transposed into UK law by the specified deadline.

**12. If it is to be consistent with its approach in other policy areas, the Treasury should carry out thorough valuations of all the environmental impacts of an expansion in aviation – including impacts on landscape, biodiversity, tranquillity and heritage. (Paragraph 56)**

The Government set out in the appraisal framework how environmental impacts would be dealt with. Physical and (*a fortiori*) monetary evaluations of the environmental effects were attempted only where there were established methods for doing so. Where this was not possible, assessments were largely qualitative in character, as in most of these areas, there is no robust methodology for transferring values found in research for one particular locality to another. The Government agrees that valuation is desirable where it can be accomplished reasonably robustly, but we are also clear that care is required in assessing whether findings can be transferred from previous valuation studies into a different context.

**13. The Treasury discussion document, *Aviation and the Environment*, seriously underestimates the impact of noise by quoting a figure of £25 million for the UK. The cost for Heathrow alone might range from [£37 million] to £66 million on the basis of up to date figures from the same source. (Paragraph 60)**



The total cost of noise impacts above 57dBA  $L_{eq}$  for all airports was tentatively estimated at £25 million for 2000. The calculations were based on essentially the same literature as used by Prof. Pearce but incorporated somewhat different assumptions to reflect, *inter alia*, available evidence about the current fleet mix and its noise performance. So the £25m cost for noise is, in this respect, a more recent figure. The difference is further attributable to Prof. Pearce's use of a 55dBA rather than 57dBA threshold value.

Nevertheless the Government does recognise that valuation of noise raises difficult technical and methodological issues and is taking forward further research looking at different ways of valuing the impact of aviation noise.

**14. Current valuations of carbon make no attempt to take account of significant or catastrophic changes to the atmosphere. Indeed, in practice, it is impossible to calculate the total value of our climate. If climate change bites deeper, the preferences and valuations people express – whether directly or indirectly – could change dramatically, with large increases in the associated environmental costs. (Paragraph 65)**

Uncertainty about costs of future climatic episodes is undoubtedly great, in both directions. Estimates of the social cost of carbon in the discussion document were based on the GES Working Paper *Estimating the Social Cost of Carbon Emissions* of January 2002. These figures are illustrative and are currently under review. The case for expanding their coverage to include catastrophic and abrupt change has been raised as part of this review. However, this is not easy given the lack of scientific consensus about the probability of such events. Defra is taking forward further work on the social cost of carbon with other Departments, external consultants and independent experts. The Inter-Departmental Group on the Social Cost of Carbon (IGSCC) is due to report in Summer 2004. If new information in future leads the Government radically to revise its assessment of the social costs of climate change, there may of course be implications for policy across a wider scene than aviation.

**15. The HM Treasury/Department for Transport document *Aviation and the Environment* tries to calculate the totality of environmental costs arising from aviation. The attempt to do so may be fundamentally flawed and the exercise could ultimately prove a waste of time – especially if there is a move towards emissions trading systems. At the very least we have little doubt that the level of costs identified by the Treasury is unlikely to be sufficient to stimulate significant behavioural change. (Paragraph 67)**

The Government believes that aviation should move towards meeting its external costs, including environmental costs. The discussion document did not purport to estimate the totality of environmental costs in monetary terms, for reasons set out in the response to Recommendation 12. This does not mean that those non-monetized environmental costs have been disregarded. Consistently with official guidance, they have been taken into account qualitatively, as well as quantitatively as far as possible.

It is not the Government's role to seek to manage demand directly, but rather to define the policy framework that will ensure aviation develops sustainably.

**16. Environmentalists argue that, by comparison with road transport, aviation is receiving subsidies of more than £9 billion through the absence of a fuel tax and VAT on tickets, and that this unfairly penalises competing forms of transport and in particular rail. (Paragraph 69)**

**17. The Treasury should set out clearly what principles underpin the different tax treatment which different forms of transport attract. (Paragraph 71)**

**18. We see no reason why aviation should be treated differently to motoring in terms of fiscal policy, and why it should not be taxed to earn revenue. We do not consider that it is possible to justify the favourable treatment it currently receives on grounds of social equity. (Paragraph 73)**

[Response to Recommendations 16-18]

The Government has no policy of equalising the tax treatment across different modes of transport. The Government's decisions about tax rates faced by a given type of economic activity take account of all the relative economic, social and environmental costs and benefits associated with that activity, as well as legislative issues. In terms of environmental considerations, different transport modes exhibit varying external costs, which differ in both nature and degree – for instance, the external congestion costs of road users are higher than those of air travellers. As the response to Recommendation 4 explains, the aviation sector is also able to control congestion through the existence of strict regulation on who has access to the skies, and to heavily-used airports.

Moreover, it is misleading to aim to compare the level of taxation across different modes. In addition to considerations of the level of externalities and the existing regulatory framework, decisions on taxation levels ought to be considered alongside Government spending, and the level of finance from both the public and private sector. For example, rail, and to a lesser extent the bus industry, receive substantial direct subsidies, of over £2.5 billion per year, as well as considerable indirect support. The aviation industry, on the other hand, meets its infrastructure costs without operational subsidies and contributes over £800 million to the exchequer annually.

For these reasons, it would be flawed in principle for the Government to set an objective to equalise tax treatment across different modes.

**19. We recommend that the Government replaces the current Air Passenger Duty with an emissions charge levied on flights and which is clearly displayed on travel documentation. This should be set initially at a level which will raise £1.5 billion a year, but be subject to an annual escalator so that revenue will increase over time. In addition, it should consider the case for introducing VAT on ticket sales for domestic flights within the UK and set out results in the next Pre-Budget Report. (Paragraph 77)**

Action on the taxation of international aviation is framed by a number of international agreements. For example, Directive 92/81/EEC, on harmonising mineral oil excise duty structures, exempted air carriers from payment of excise duties on mineral oils supplied for use as fuel within the EU: this effectively amounts to a ban on taxes on fuel consumption. Exceptions can now be made under the Energy Products Directive (2003/96/EC), which supersedes 92/81/EEC, but only for domestic flights or where bilateral agreements between Member States allow. (See also response to Recommendations 16-18.) In addition, the UK is also bound by the Chicago Convention and a series of bilateral agreements with international partners.

As the Government has made clear, it is keen to explore measures better to incentivise environmentally responsible action amongst airlines, consistent with these domestic and international laws. To support progress at international level and to ensure that the UK makes an early start in establishing a sustainable growth path for aviation, the Government will look further at the practicality of introducing measures in this area. Chapter 3 of the White Paper sets out in more detail the Government's intentions in this area.

**20. With regard to the introduction of duty on aviation fuel or alternatively an emissions charge or trading system, the Government should take a leadership role within the EU and the International Civil Aviation Organisation and commit itself to bring forward specific proposals in the next two years. It should also state whether it favours the introduction of an emissions charge at an EU level as an interim measure pending the inclusion of aviation in international trading schemes. (Paragraph 81)**

The Government will press for international co-operation to address the climate change impact of aviation. The UK is already putting substantial effort into ICAO's work to design an international emissions trading scheme in which aviation could participate. The Government recognises that the need for consensus among the participating states in ICAO means that progress is likely to take time. Action may therefore be achievable at EU level, consistent with the principle of subsidiarity; and provided that competitiveness is not unduly harmed. We set out in the White Paper the Government's intention to promote the inclusion of intra-EU air services in the EU emissions trading scheme (EU ETS), from 2008 or as soon as possible thereafter, and to make this a priority for the UK Presidency in 2005.

**21. The Government should re-examine the scope for introducing a dual-till system to ensure that airlines pay a greater share of the infrastructure costs. It should also work within the EU to enable slots to be auctioned on a regular basis so that demand is reflected in the price. (Paragraph 86)**

As noted in the response to Recs. 16-18, the aviation industry meets its infrastructure costs. Any decision to move to a dual till system is entirely a matter for the regulator (CAA). The Government agrees that transparent market-based options for the allocation of slots should be available, and continues to press the EU for appropriate amendment of Regulation 95/93.



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