



House of Commons  
Transport Committee

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# The future of aviation

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## First Report of Session 2009–10

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## The Transport Committee

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### Committee staff

The current staff of the Committee are Annette Toft (Clerk), Adrian Jenner (Second Clerk), David Davies (Committee Specialist), Marek Kubala (Inquiry Manager), Alison Mara (Senior Committee Assistant), Jacqueline Cooksey (Committee Assistant), Stewart McIlvenna (Committee Support Assistant) and Hannah Pearce (Media Officer).

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# 1 Introduction

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## Background

1. Aviation plays a crucial role in the UK economy and in the lives of many residents and visitors. Approximately 225 million passengers and 2 million tonnes of freight passed through UK airports in 2008.<sup>1</sup> These numbers have grown dramatically over the past few decades. Despite the decline caused by the recent recession, passenger demand is forecast to double again by 2030. This raises issues about the adequacy of capacity of some airports, particularly in the southeast of England, and the environmental consequences of a growth in aviation.

2. In January 2009, the Government announced its intention to support a future planning application for a third runway at London Heathrow airport, following public consultation on the proposal.<sup>2</sup> A planning inquiry into an application by BAA Airports Ltd to construct a second runway at Stansted airport was due to be held in 2008 but was deferred as a result of the decision by the Competition Commission to require BAA to sell Gatwick, Stansted and other airports by 2011.<sup>3</sup> Both these runway proposals are consistent with the Government's 2003 White Paper, *The Future of Air Transport*.<sup>4</sup>

3. UK residents are taking the opportunity to travel by air increasingly often, with demand stoked by falling fares. However, decisions on whether and how to meet the growth of air transport have proved highly controversial. For people living near to busy airports, there are economic opportunities but there may also be quality of life impacts—notably noise, air pollution and traffic. At the global level, the prospect of greenhouse gas emissions from aviation continuing to increase is at odds with efforts to tackle climate change.

## Our inquiry

4. Our inquiries into aviation issues over the past few years have included the passenger experience, financial protection for air passengers, air freight, the Civil Aviation Authority and BAA. Earlier this year we also published our Report on *The use of airspace*.<sup>5</sup>

5. Given the prominence of the issue of airport expansion and the length of time since the publication of the Government White Paper in 2003, we decided that a wide-ranging inquiry was needed. The severe financial difficulties, very publicly faced by many airlines, add a further dimension to the issue.

6. In December 2008 we announced our intention to conduct an inquiry into:

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1 Q 512; Department for Transport, *Transport Statistics Great Britain: 2009 Edition*, November 2009

2 HC Deb, 15 January 2009, cols 357–358

3 BAA sold Gatwick airport to Global Aviation partners in October 2009.

4 Department for Transport, *The Future of Air Transport*, Cm 6046, December 2003

5 Transport Committee, Fifth Report of Session 2008–09, *The use of airspace*, HC 163

- a) the value of aviation to the UK economy, the roles of London and regional airports and competition from airports abroad;
- b) the adequacy of the current airport infrastructure and how it should be developed;
- c) the extent to which rail might provide an alternative to short-haul flights;
- d) the social and environmental costs of aviation and the implications for aviation of the Climate Change Act;
- e) the impact of taxation on the aviation sector and protection of passengers in the case of an airline collapse, and
- f) the impact on aviation of changes to security.

7. Almost 100 organisations and individuals submitted written evidence and we took oral evidence from over 30 of them. We are grateful to all those who contributed and assisted us. The evidence is published with this Report. We also wish to thank Brian Graham, Emeritus Professor of Human Geography at the University of Ulster, who was our specialist adviser for the inquiry.<sup>6</sup>

8. In connection with this inquiry, we visited Washington DC in October 2009. The visit provided us with much valuable information and insights into aviation issues from a US perspective, particularly in relation to the state of the aviation industry, the impacts of heightened security and approaches to climate change policies. We are most grateful to all those who assisted us. A note of our visit is provided at Annex 1.

## 2 Government policy on aviation

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### Context

9. The context for the aviation industry and for Government aviation policy is one of increasing trade liberalisation and market pressures. In the UK and in many other countries, state ownership of airlines and airports, traffic distribution rules, fares regulation and other such government controls have long given way to market-led approaches.

10. The UK is part of the EU Single Aviation Market and the EU has overall competence in many areas relating to civil air transport. Outside the EU, access to overseas airports and business remains restricted by national Governments but agreements, such as Open Skies between the USA and the EU, have reduced barriers. Aviation policy and regulation in the UK is generally a reserved matter which rests with the Department for Transport and the

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<sup>6</sup> Professor Graham declared the following interests: Retired as Professor of Human Geography, University of Ulster, 2008. Now Emeritus Professor. Adviser on air transport matters to Department of Regional Development (DRD), Northern Ireland, 2001–06. Director, Air Route Development (NI) Ltd (Invest Northern Ireland company administering N. Ireland air route support scheme), 2005–08. Chair of Mid-term and Final Evaluations of 'Opportunities for Meeting the Environmental Challenge of Growth in Aviation (Omega)', Manchester Metropolitan University, 2008–09.

Civil Aviation Authority (CAA). The role of the Devolved Administrations in relation to aviation is largely restricted to land use planning and surface access issues.<sup>7</sup>

11. The UK has significant competition between airlines and between airports. Low-cost carriers have expanded rapidly and taken considerable market share from full-service scheduled carriers and, even more so, from charter airlines, although their impact on the overall rate of passenger growth is less clear.<sup>8</sup> Regional airports compete to attract new airlines and services. Competition is regulated to ensure that airports do not engage in anti-competitive practices.<sup>9</sup> Unlike road and rail transport, air transport is largely private sector-funded. Most airports are privately owned; other costs, such as air traffic control, airport security and the Civil Aviation Authority, are recovered through fees and charges to the industry. Although some public funds are spent on providing surface access to airports, governments have tended to intervene much less than they do in other transport modes. The Government does, however, provide financial assistance to the aerospace industry to support employment and technical development. Since 1997 the Government has provided £1.5 billion in the form of repayable launch investments.<sup>10</sup>

### Air Transport White Paper

12. The 1998 White Paper, *A New Deal for Transport*, said relatively little about aviation except that the Government would respond to the recommendation of the Transport Select Committee and draw up a policy for UK airports that looked 30 years ahead. The Government duly did this in its 2003 White Paper *The Future of Air Transport*.<sup>11</sup>

13. That White Paper looked ahead to 2030. It covered the strategic framework, environmental impacts, various aspects of the air transport sector and the Government's strategy for airport development in each UK region. It involved a great deal of technical work and consultation, including detailed assessments of regional needs and opportunities.<sup>12</sup> The White Paper asserted that air travel was essential to the UK's economy and noted that passenger numbers had increased five-fold over the previous thirty years. It saw as the key issue the need "to deal with the pressures caused by the increasing need to travel whilst at the same time meeting our commitment to protect the environment in which we live."<sup>13</sup> It forecast that the unconstrained demand for air travel—the number of air passengers wishing to pass through UK airports—would rise from some 200 million in 2003 to between 400 and 600 million by 2030. Its central forecast was a demand of 500

7 Ev 121

8 Civil Aviation Authority, *No-frills carriers: revolution or evolution*, CAP770, November 2006, pp 3-4

9 The CAA regulates charges at the major airports.

10 For example, on 14 August 2009 Lord Mandelson announced that the Department of Business, Innovation and Skills would provide £340 million of support to Airbus. The Business, Innovation and Skills Committee is currently inquiring into the motor sport and aerospace industries.

11 The Transport Committee returned to the issue of long-term planning in its Report on *Aviation* (Sixth Report of Session 2002-03, HC 454).

12 *Expansion of Heathrow Airport*, Research Paper 09/11, House of Commons Library, February 2009, p 15

13 Department for Transport, *The Future of Air Transport*, Cm 6046, December 2003, p 7

million passengers per annum by 2030. This implies an average of two return trips a year for each UK resident in 2030, compared to one return trip today.<sup>14</sup>

14. The White Paper proposed a “balanced strategy” between airport expansion and the environmental impacts, in line with its “commitment to sustainable development”. Its key conclusion was that the capacity of UK airports, particularly in southeast England, was “an important constraint on future growth” with runways at Heathrow and Gatwick at full capacity and Birmingham and Edinburgh airports approaching their capacity limits. For this reason, the Government supported runway expansion plans at Heathrow, Stansted, Edinburgh and Birmingham airports, and capacity increases at other specified airports.<sup>15</sup> The provision of this extra capacity would accommodate 470 million passengers per annum, compared with the demand of 500 million passengers per annum in 2030, a shortfall of 30 million.

15. The White Paper also proposed a range of measures to reduce and mitigate local environmental impacts, which it acknowledged often had major implications for public health, particularly the impacts of aircraft noise and poor air quality.

16. In 2006 the Government published a progress report.<sup>16</sup> It gave more prominence to climate change issues, reflecting the Stern Review.<sup>17</sup> There was also greater emphasis on the local environmental impacts of aviation. The progress report included revised passenger forecasts—slightly lower than those of the 2003 White Paper—and the findings of a new study into the economic benefits of aviation.<sup>18</sup>

17. Although now six years old, the Air Transport White Paper is still viewed favourably by aviation experts and industry representatives. They saw it as filling a gap in long-term strategic planning for airport development in the UK. For example, Mr Murphy of the Chartered Institute of Logistics and Transportation believed that “It probably was the most definitive policy document on aviation and airports that ever came out [...]”<sup>19</sup>

18. Dr Bush, the CAA’s Economic Regulation Director, said that, along with subsequent policy statements, the White Paper continued to provide a robust policy framework:

[...] what it does extremely well is to get us focused on long-term trends and the need to match capacity to those long-term trends and to think in terms of what needs to be done from where we are now to deal with the increase in travel that is going to take place. I think it is still robust and credible at that level [...]

Mr Mans, Chairman of the Royal Aeronautical Society, agreed but added that it should be updated at least every five years.

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14 Department for Transport, *The Future of Air Transport*, Cm 6046, December 2003, p 23

15 A 1979 planning agreement prevents construction of a second runway at Gatwick before 2019.

16 Department for Transport, *The Future of Air Transport Progress Report*, Cm 6977, December 2006

17 Stern Review, *The Economics of Climate Change*, October 2006

18 Oxford Economic Forecasting, *The Economic Contribution of the Aviation Industry in the UK*, October 2006

19 Qq 2-3, 308

19. Not all organisations, however, are satisfied with the Government’s aviation policy. The concerns are chiefly based on the environmental impacts of aviation—climate change and local environmental degradation—backed by some dispute over the need for additional airport capacity and the economic benefits of aviation. Although the Air Transport White Paper addresses these issues, the priority attached to some, notably climate change and high-speed rail, has changed considerably since 2003. The Institution of Civil Engineers has also argued that the strategy is starting to look dated and not sufficiently long-term.<sup>20</sup> The environmental and economic issues are addressed later in our Report.

## Integrating aviation into overall transport policy

20. The Eddington Transport Study considered the long-term links between transport and the UK economy.<sup>21</sup> It recommended greater investment in transport of all modes, and particularly in the UK’s international gateways and connections to them. Improved surface access to the UK major airports was one of the priorities recommended. The Treasury has accepted that transport investment generally has a high benefit to cost ratio and public spending on transport has increased in real terms in each of four comprehensive spending reviews, rising from 1% of GDP in 1997–08 to 1.5% in 2007–08.<sup>22</sup>

21. The lessons of the Eddington Study have yet to be fully taken on board by the Department for Transport. Dr Givoni and Professor Banister of Oxford University contend that airport development has been considered largely in isolation from other transport modes and that surface access to airports has been treated as an ancillary issue. They point out that this is particularly relevant to Heathrow where rail access is poor. Whilst Heathrow is of great importance to the UK national economy, the employment and business benefits are, inevitably, greater for the London area. Even with improvements such as Crossrail (underway) and AirTrack (proposed), rail access from outside the London area will remain unattractive to many.<sup>23</sup>

22. The Institution of Civil Engineers urges that future airport expansion should be considered as “part of a wider integrated national transport strategy rather than as single infrastructure projects” and that smaller regional airports should be part of an “integrated national transport strategy”.<sup>24</sup>

23. A further aspect of aviation being treated in relative isolation from overall transport policy is that, whereas the Government has set various targets and objectives for surface modes, such as increasing bus and light rail use, none has been set for aviation. Whereas the Government has taken a variety of measures to influence surface modes, it has remained relatively detached regarding air transport.

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20 “Plotting aviation future”, *Planning*, 13 November 2009, p 8

21 HM Treasury & Department for Transport, *The Eddington Transport Study: The case for action: Sir Rod Eddington’s advice to Government*, December 2006

22 Rt Hon Angela Eagle MP giving evidence to the Transport Committee in relation to *Taxes and charges on road users*. (Sixth Report of Session 2008-09, HC 103, Q 521)

23 Ev 305

24 Ev 266

24. Recently, the Department for Transport has considered more explicitly the relationship between aviation and high-speed rail. This has largely focused on investigating high-speed rail access to Heathrow.<sup>25</sup> The Secretary of State, Rt Hon Lord Adonis, has suggested that, ultimately, a high-speed rail line between London and Scotland might replace many domestic flights.<sup>26</sup> Yet transfer from air to high-speed rail is not reflected in Government policy, for example, the Department for Transport's recent strategy *Low Carbon Transport: A Greener Future*.<sup>27</sup>

25. **The 2003 White Paper, *The Future of Air Transport*, continues to provide a sound basis for aviation policy. It identifies the likely airport infrastructure requirements without authorising or precluding them. However, the Government needs to set out more explicitly the role envisaged for aviation within its overall transport policy as well as the inter-relationships between aviation and other transport modes. It should ensure that the policy is kept up-to-date, taking full account of proposals for high-speed rail and climate change.**

## 3 The importance of aviation to the UK economy

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### Supporting UK plc

26. Much of the evidence we received in the course of our inquiry underlined the scale and importance of aviation to the UK economy. The aviation industry—airlines, airports, manufacturers etc—is important in its own right, directly employing some 200,000 people.

27. Perhaps more importantly, from a public policy perspective, aviation supports the wider economy. As world trade and production becomes increasingly global, so the importance of good international access grows. The Confederation of British Industry (CBI) emphasised to us the strategic importance to UK business of good international air services.<sup>28</sup> Aviation is important to a wide range of sectors of the economy, including inbound tourism, finance, knowledge and technology intensive industries and fresh produce, to name but some of the examples that we were given.

28. The Department for Transport and a number of witnesses cite the 2006 study by Oxford Economic Forecasting as the main evidence source for the economic benefits of aviation.<sup>29</sup> This estimates that, in 2004, the UK aviation industry directly contributed £11.4 billion, or 1.1% of UK GDP; and that at that time, 520,000 jobs in the UK directly or indirectly depended on the aviation industry.

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25 Department for Transport, *Britain's Transport Infrastructure: High Speed Two*, January 2009

26 *The Guardian*, 5 August 2009, p 1

27 Department for Transport, *Low Carbon Transport: a Greener Future*, Cm 7682, July 2009

28 Ev 137

29 Oxford Economic Forecasting, *The Economic Contribution of the Aviation Industry in the UK*, October 2006

29. Flying Matters drew our attention to a study by the National Endowment for Science, Technology and the Arts on the drivers of innovation throughout the UK regions. Flying Matters concluded from the study that

the new knowledge economy, which will play a vital role as we move through the recession and recover from it, relies heavily on international connectivity. This is important not just for London but for each of the regions and countries of the UK.<sup>30</sup>

30. Our witnesses, from across the UK, highlighted the importance of Heathrow to the national economy. As a major European hub-airport, Heathrow has 90 airlines which fly to 180 destinations.<sup>31</sup> It is the only UK airport with the critical mass of passengers and flights to enable such a hub to be economically viable. 35% of Heathrow's traffic consists of connecting passengers and, as the CAA points out, such passengers help to maintain the range and frequency of services offered, to the benefit of all passengers using the airport.<sup>32</sup> Heathrow has special importance for London as an international financial centre.<sup>33</sup> Seven out of the top 10 business routes in the world have Heathrow at one end.<sup>34</sup> Those representing business and transport interests outside London and the southeast also acknowledged the importance of Heathrow as a national economic asset, although they wanted better access to it.

### **Air freight**

31. Whilst the vast *bulk* of UK freight is exported by surface transport, a high proportion of the *value* of freight goes by air, mostly in the baggage holds of passenger aircraft.

The volume of freight travelling by air is very small—around 0.5% of the total. However, it has a high value—about 25% of the UK's trade by value. Air freight has a disproportionate importance as it serves industries which are core to the UK's economic future as a service economy. These include the industries such as electronics, telecoms, financial and business services.<sup>35</sup>

32. Air freight accounts for 40% of UK trade with non-EU destinations by value, the principal routes being transatlantic and to Asia. Inbound freight volumes are higher than outbound although recently the value of goods exported by air has exceeded that of goods imported by air.<sup>36</sup> Heathrow accounts for 25% of the UK's non-EU trade by value while East Midlands Airport is a key hub for express courier services. Freight movements are organised through hub-and-spoke systems and many UK regional airports with 24-hour operating licences feed into the principal EU freight hubs. These regional airports also facilitate the transfer of express post for Royal Mail and other time-sensitive goods such as

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30 Ev 133

31 Ev 330

32 Ev 232

33 City of London report by York Aviation, *Aviation Services and the City*, December 2008

34 Ev 399

35 Ev 181

36 Oxford Economic Forecasting, *The Economic Contribution of the Aviation Industry in the UK*, October 2006, p 33

newspapers. The global air freight industry has been very badly hit by the current recession and numerous freight aircraft are currently in storage.<sup>37</sup>

### **Business aviation**

33. Business aviation has a specific role although the sector is experiencing a serious downturn because of the recession. According to TAG Farnborough, an exclusively business-oriented airport, business aviation is increasingly important to UK companies and international companies based in, and trading with, the UK. Business aviation provides air services according to the needs of the individual, rather than fixed services. TAG Farnborough says that the types of businesses and individuals that it serves are responsible for substantial inward investment in the UK as well as overseas trade.<sup>38</sup>

### **Aviation industry**

34. The current recession is clearly creating severe difficulties for the industry, in the UK and worldwide. It is also hastening a restructuring of the airline industry. It seems that the trends towards airline mergers, such as British Airways-Iberia,<sup>39</sup> and global alliances, are inevitable. With adequate competition and safeguards, it is probably of overall benefit to passengers and businesses.

### **Open Skies**

35. The First Stage Open Skies agreement between the EU and the USA came into effect in 2008.<sup>40</sup> To date, its principal impact in the UK has been to open up British Airways and Virgin Atlantic to greater competition. It has also caused some services to relocate from Gatwick and Manchester airports to Heathrow.<sup>41</sup> The introduction of Open Skies coincided with the global recession and it is difficult, at present, to predict its longer-term impacts.<sup>42</sup>

36. Discussions to extend the Open Skies agreement are ongoing between the European Commission and the US Federal Aviation Administration. This might allow further access to EU and US markets. **The asymmetric nature of the Open Skies agreement is disadvantageous to the UK economy and particularly to the UK regions, and should be renegotiated at the earliest possible opportunity.**

### **Regional economic development**

37. Aviation was seen by witnesses as important to economic development outside London and the southeast. Mr Nick Paul, representing the eight English regional development

37 Department for Transport, *An analysis of the end-to-end journey of air freight through UK international gateways*, May 2009

38 Ev 99

39 *Financial Times*, 13 November 2009, p 23

40 See Annex 1.

41 Ev 299

42 Ev 248

agencies outside London, described the importance of aviation to the regions as “massive, and not only for local employment”.<sup>43</sup> The agencies have quantified the economic benefit of air connections for regional economies and shown how some connections—mainly those linking business centres—are more valuable than others in terms of attracting inward investment.<sup>44</sup> According to *The Northern Way*, the eight regional airports of the North contributed £1.3 billion to the regional economy through direct and indirect benefits. Furthermore, they argue: “The catalytic benefits of international connectivity through the North’s airports most probably greatly outweigh the more easily quantifiable direct and indirect impacts.”<sup>45</sup>

38. Regional airports facilitate economic development and serve local business markets. Additional services create direct employment at airports and will have local multiplier effects. They also facilitate inward investment. A basic level of air connectivity was also seen as vital for business and communities in remote parts of the UK, such as the Scottish Highlands and Islands.

For the island and remote mainland communities, the only alternative to air travel for accessing the mainland and service centres (on occasions on another island) are ferry services or long journeys on poor quality land based infrastructure. Whilst the ferries and other modes offer relatively low fares, they cannot compete with air services for convenience and time-critical travel.<sup>46</sup>

The 2003 White Paper suggested that services to remote areas of the UK, including the Scottish Highlands and Islands, and parts of Wales and southwest England, might be enhanced through Public Service Obligations and Route Development Funds. In the event, relatively few services have been developed or sustained through these mechanisms.

39. Regional airports handle over 40% of all UK air traffic.<sup>47</sup> Some have grown rapidly because of the advent of low-cost carriers. Flybe, which specialises in linking regional airports, has been a particular success story, although there are signs of market saturation, such as the recent easyJet announcement that it will be withdrawing from East Midlands airport. Another important dimension, often overlooked in discussion of regional airports, is the importance of ‘VFR’ (visiting friends and relatives) traffic which is both domestic and international and again provides a key market for low-cost carriers.<sup>48</sup> However, low-cost carrier services are heavily skewed towards outbound leisure services and this has been a negative feature of both the Scottish and Northern Ireland route development schemes.

40. There has been a change in travel patterns, with more passengers using regional airports instead of travelling through London.<sup>49</sup> Over the period, 2000–2006, passenger numbers at regional airports grew by around 7% compared to 3% for the London

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43 Q 177

44 Ev 191

45 Ev 185

46 Ev 384

47 Civil Aviation Authority, *Air services at UK regional airports*, CAP775, 2007

48 Civil Aviation Authority, *International relations: the growth in air travel to visit friends and relatives*, CAP787, 2009

49 Civil Aviation Authority, *Air services at UK regional airports*, CAP775, 2007

airports.<sup>50</sup> The growth of direct short-haul international connections from regional airports, largely because of European liberalisation and the rise of the low-cost carriers, has, to some extent, compensated for the loss of connecting services to Heathrow. The CAA found that the strongest growth sector at regional airports from 2000–06 was international scheduled traffic, some of this being at the expense of charter carriers. Meanwhile, the growth rate in domestic traffic fell from 11% in 2003 to 0.2% in 2006.<sup>51</sup>

41. In addition, numerous regional airports have Air France/KLM connecting services to Paris Charles de Gaulle and Amsterdam Schiphol. Some, such as Bristol, Newcastle and Belfast International, have services to non-EU hubs, especially Dubai (Emirates) and Newark (Continental). It seems clear, however, given the withdrawal of British Airways and bmi transatlantic routes from Manchester, that further expansion of long-haul services from regional airports is unlikely. One problem lies in generating sufficient business-class demand, which is important for profitability. Continental, for example, sells a very high percentage of seats on the Belfast-Newark service but not in the business-class cabin.

42. The CAA observes that “there is growing competition between regional airports” while the challenge for them is “to continue expanding while maintaining their attractiveness to the passenger in terms of convenience and speed”.<sup>52</sup> A number of regional airports are financially dependent on one or two operators. As such, they face ‘churn’ in services as airlines adopt different strategies and routes. Ryanair’s decision in 2009 to transfer services from Manchester Airport to other UK regional airports is one such example.<sup>53</sup>

## Contested issues

43. Whilst aviation is self-evidently an important part of the UK economy, some of our witnesses were concerned that the evidence base was too narrow and not sufficiently robust. They also argued that the scale of the economic benefits was sometimes exaggerated and that a more subtle understanding of the economic benefits and disadvantages was required as a basis for public policy decisions.<sup>54</sup> Essex County Council, for example, argued that there would be few, if any, economic benefits from an expansion of Stansted airport.<sup>55</sup>

44. Much of the concern related to the Oxford Economic Forecasting study which was cited by the Department for Transport and aviation industry witnesses in their evidence to our inquiry. Dr Givoni and Professor Banister,<sup>56</sup> the Aviation Environment Federation and HACAN,<sup>57</sup> criticised this study on several grounds, notably:

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50 Civil Aviation Authority, *Air services at UK regional airports*, CAP775, 2007, p 1

51 Civil Aviation Authority, *Air services at UK regional airports*, CAP775, 2007, p 3

52 Civil Aviation Authority, *Air services at UK regional airports*, CAP775, 2007, p 1

53 *The Guardian*, 17 August 2009

54 Ev 122, Qq 287-288 [Brian Ross]

55 Ev 255

56 Ev 46

57 HACAN is a residents’ group opposed to the expansion of Heathrow. See Ev 389

- a) It was not sufficiently independent, having been commissioned by the Department for Transport and the aviation industry;
- b) It has not been subjected to peer review;
- c) Some of its assumptions and methods appear to exaggerate the economic benefits, and
- d) The economic ‘disbenefits’ of aviation are underplayed.

45. Because of the importance of these economic issues to our inquiry, a special briefing paper was prepared for us by the House of Commons Scrutiny Unit (see Annex 1).<sup>58</sup> It points out that:

- a) The aviation industry does not directly correspond to any definition in official UK statistics (Standard Industrial Classification) and, as such, Oxford Economic Forecasting (OEF) had to design a methodology and make various assumptions to measure economic activity;
- b) The study does not fully address the concept or cost of the UK’s ‘tourism deficit’—the difference between spending by UK tourists overseas and spending by visitors to the UK. This is estimated elsewhere to amount to £20.2 billion in 2008, up from £5 billion in 1997. Most of this deficit arises from air travel.<sup>59</sup> The OEF study notes the trade imbalance but concludes that it is not a “structural problem”.

46. The White Paper briefly addresses the issue of the tourism deficit. It notes that

The Government, working with VisitBritain and the Tourism Alliance, has launched a series of recent programmes and campaigns to attract foreign visitors and encourage domestic tourism, in the face of a widening gap in the tourism balance of payments.<sup>60</sup>

Since this time, the gap has continued to widen.

47. We put these issues to the Secretary of State for Transport, Rt Hon Lord Adonis, and to Mr Moor of the Department for Transport. Lord Adonis confirmed that the Department for Transport accepts the findings of the Oxford Economic Forecasting study. The Department for Transport’s view on the issue of the tourism deficit is that it:

[...] is a measure of the difference between the expenditure of UK residents overseas and expenditure of foreign residents in the UK. It is not a measure of the impact of aviation on the contribution of the tourism industry to the value of the UK economy.

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58 Annex 2—*Economic aspects of the future of aviation*, House of Commons Scrutiny Unit, 2009. The Scrutiny Unit is a central unit within the House of Commons Department of Chamber and Committee Services that provides specialist legal, economic and accountancy advice.

59 Two-thirds of overseas tourists travel to the UK by air according to the Department for Transport, *The Future of Air Transport Progress Report*, Cm 6977, December 2006, 4.18.

60 Department for Transport, *The Future of Air Transport*, Cm 6046, December 2003, para 4.23

It would not be meaningful to compare estimates of the tourism deficit directly with the £11 billion value added figure.<sup>61</sup>

48. The low-cost (or no-frills) carriers are now major players in relation to tourism. Yet the CAA found that while low-cost carriers have transformed patterns of air travel and the ways in which airports interact with passengers and booking procedures, "it is less clear that the growth of the no-frill sector has significantly affected overall rates of traffic growth". Rather, "much of their growth seems to have been at the expense of full-service scheduled carriers and, even more so, charter carriers". Stimulation of new traffic occurs on individual routes but it is difficult to discern "a change in the rate of growth at the level of the market overall".<sup>62</sup>

49. The advent of lower fares has made air travel accessible to more people. According to Flying Matters, "A revolution has taken place in flying since the 1960s. Today, flying is no longer the preserve of a privileged elite." The CAA found that people from all income-groups are flying more:

There has been a significant increase in the total number of people flying from all [income] groups. The more observable effect is of middle and higher income and socio-economic groups flying more often than in the past, and often on shorter trips.<sup>63</sup>

50. In this context, it was interesting to hear from Members of the UK Youth Parliament. They had a keen awareness of climate change issues and the environmental impacts of aviation. Equally, they enjoyed air travel and saw it as part of their future, for leisure, education and work purposes. In respect of the future of aviation, the views of young people did not appear to differ significantly from those of the general population.<sup>64</sup>

## Conclusion

51. Aviation is important to the UK economy overall. It facilitates the flows of people, goods and finance into, out of, and within the UK. Good connectivity supports UK competitiveness in increasingly global markets. Aviation is also important to regional economic development.

52. These economic factors are the key justification for difficult decisions that sometimes need to be made regarding airport expansion, when it is necessary to weigh the economic benefits against the environmental and social costs. It is important therefore that the economic assessments are clear and robust whilst recognising that the sum of individual economic assessments underestimate the total value of aviation to the UK economy as, in all probability, if the aviation sector were removed from the UK, the economy would collapse.

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61 Ev 116

62 Civil Aviation Authority, *No-Frills Carriers: Revolution or Evolution?*, CAP770, 2006, pp 3-4

63 Civil Aviation Authority, *No-Frills Carriers: Revolution or Evolution?*, CAP 770, 2006, p 5

64 Q 484 ff

53. The Government is right to support the sensible development of air transport in the UK. Choices between economic benefits and environmental costs sometimes need to be made. The “balanced strategy”, set out in the 2003 Air Transport White Paper, requires a good evidence base. The Government should regularly update its assessment of the economic value of aviation to the UK economy and ensure that it is subject to independent external scrutiny.

## 4 The environment

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### Climate change

54. One point on which virtually all of our witnesses agreed was that the aviation industry must find ways to operate within the context of global reductions in greenhouse gas emissions. Beyond the immediate problems of the economic recession and security threats, reducing carbon dioxide (CO<sub>2</sub>) emissions and other climate change impacts from aviation is the greatest challenge facing the aviation industry.<sup>65</sup>

55. Although aviation currently contributes only some 5% of UK greenhouse gas emissions, the Committee on Climate Change estimates that, by 2050, this might rise to 25%.<sup>66</sup> Although international aviation emissions were not included in the Kyoto Protocol, Lord Adonis has made it clear that the Government will be pressing for both international aviation and shipping to be included in any new deal agreed at the United Nations Framework Convention on Climate Change conference to be held in Copenhagen in December 2009.<sup>67</sup> The UK has also, uniquely, passed domestic legislation (the Climate Change Act 2008) that binds it to an 80% cut in CO<sub>2</sub> emissions by 2050, with an interim milestone of at least 26% by 2020. It has also established binding carbon budgets to ensure that these targets are met. International aviation and international shipping are not included in the carbon budgets because of the complexities relating to the methodologies by which emissions might be allocated. Nonetheless, Lord Turner made clear to us that, as far as the Committee on Climate Change is concerned, the UK’s share of international aviation and shipping emissions will have to be accounted for within the UK’s carbon budget.<sup>68</sup>

56. Mr Keith Mans, Chief Executive of the Royal Aeronautical Society, emphasised how the industry had risen to many technical challenges over the past century and would do so again in the future. He believed that the aviation industry could square the circle of tripling passenger numbers whilst reducing CO<sub>2</sub> emissions.<sup>69</sup> The aviation industry’s vision for a lower-carbon aviation industry is set out in the *Sustainable Aviation CO<sub>2</sub> Roadmap* (an industry-sponsored report). This anticipates that, with improved technology (new aircraft

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65 Aviation’s principal contributions to climate change result from emissions of carbon dioxide, nitrogen oxides (NO<sub>x</sub>), water vapour (contrails), particulates (soot and sulphate particles) and certain other compounds. The impact of these emissions is increased because they are released at altitude—an effect known as ‘radiative forcing’. See Ev 140.

66 Letter from Lord Turner, Chairman of the Committee on Climate Change, to the Secretaries of State for Transport and Energy and Climate Change, 9 September 2009.

67 Department for Transport, *Low Carbon Transport: a Greener Future*, Cm 7682, July 2009.

68 Q 48

69 Q 39

engines and airframes), more efficient air traffic management,<sup>70</sup> the use of biofuels and other measures, CO<sub>2</sub> emissions can be reduced to 2000 levels by 2050 while passenger numbers grow by a factor of three.<sup>71</sup>

57. Our meetings with aviation industry representatives in the USA brought home to us the extent to which the industry is relying on sustainable biofuels to reduce CO<sub>2</sub> emissions from aviation in the medium term. Purchasing carbon offsets is also expected to be significant over this period. Whilst some emissions savings will result from new aircraft, the recession and poor credit ratings of airlines are making fleet replacement more difficult. On past experience, it would take at least 15 years and probably much longer to replace most of the world's jet airliner fleet.<sup>72</sup>

58. The extent and timeliness with which such large reductions in CO<sub>2</sub> emissions from aviation could, or would, be implemented was challenged by a number of environmental organisations. The WWF-UK described the *Sustainable Aviation CO<sub>2</sub> Roadmap* as a “techno fantasy”.<sup>73</sup> In its view, the technologies are unproven and the incentives to adopt them are insufficient. The Environment Agency expressed similar views, if less forcefully.<sup>74</sup>

59. It is clear that, whatever the debate about the science of climate change, reducing greenhouse gas emissions has to be a fundamental part of the aviation industry's business plan—a point freely acknowledged by airline representatives: “[...] we recognise that global warming and climate change is a major issue and aviation, like every other industry, needs to be playing its part.”<sup>75</sup> Whilst strongly supporting emissions trading, Mr Harrison of easyJet, said that more stringent environmental standards should be set within Europe so that older or less fuel-efficient aircraft are taken out of service more quickly.<sup>76</sup> Mr Ridgway of Virgin Atlantic, whilst enthusiastic about employing the latest technology, pointed out the financial difficulties of investing in low-emission aircraft at present:

I think we are in a potentially difficult place coming out of the recession and with the meltdown in the financial system and I think, going forward, the financing of [new, more fuel-efficient] aircraft is potentially going to be quite difficult.<sup>77</sup>

60. The concept of sustainable aviation has been studied by the OMEGA, a consortium managed through Manchester Metropolitan University, examining possible solutions for a ‘greener’ aviation future. Their conclusion, based on some 40 technical studies, is that technology may provide the means to mitigate some of air transport's environmental externalities but that human behavioural change is also necessary.

70 We recently examined this in depth in Transport Committee, Fifth Report of Session 2008-09, *The use of airspace*, HC 163.

71 <http://www.sustainableaviation.co.uk/>

72 Annex 1

73 Ev 168. WWF-UK was formerly the World-Wide Fund for Nature.

74 Q 80 [Dr Grayling]

75 Q 320 [Mr Harrison]

76 Q 320

77 Q 346

61. Clearly, there is potential for improvements in technology, fuels and management systems that would reduce the carbon intensity of aviation. It remains questionable, however, to what extent this can be achieved, and what the timeframe and the drivers of progress would be. Various technological developments have been proposed—for example, open rotors, geared turbofans and biofuels—but no immediate consensus on what might provide a step-change in emissions has not, as yet, emerged. Some of the more fuel-efficient engine technologies, such as open-rotor engines, make it harder to achieve reduced noise levels. There are also many questions regarding the sustainability of using biofuels on a global scale.<sup>78</sup> The December 2009 Report of the Committee on Climate Change will be important in this respect (see below).

## EU Emissions Trading Scheme

62. The Government has set out its approach to tackling the problem of containing emissions whilst passenger numbers grow:

- a) International flights using UK airports will be required to become part of the European Union Emissions Trading Scheme (EU ETS) from 2012, and
- b) The total emissions from aviation in 2050 must be no higher than in 2005.<sup>79</sup>

63. Carbon trading is, in theory, a fair and cost-effective mechanism for reducing emissions. The purpose of carbon trading is to limit emissions in the traded sectors and to create a price for carbon which gives incentives to industry and others to invest in low carbon processes. The National Audit Office has concluded, however, that EU ETS Phases 1 and 2 were ineffective in reducing carbon emissions beyond what would have occurred anyway.<sup>80</sup> Carbon trading has had less impact on reducing emissions than intended due to:

- a) The emission caps being set too high;
- b) Options to purchase carbon credits from outside the scheme, and
- c) Initial allowances being too generous.<sup>81</sup>

64. The National Audit Office is cautious about expecting too much from EU ETS Phase 3, which will include aviation. A number of our witnesses were similarly concerned about reliance on EU ETS to reduce aviation emissions. The Environment Agency lists a number of potential weaknesses in the EU ETS mechanism for aviation, such as the fact that EU ETS includes only CO<sub>2</sub> and not other greenhouse gases. It is also concerned that the mechanism will not influence the long-term price for carbon.<sup>82</sup> The current carbon price<sup>83</sup>

78 Environmental Audit Committee, First Report of Session 2007-08, *Are biofuels sustainable?*, HC 76

79 HC Deb, 15 January 2009, cols 357–358

80 EU ETS Phase 2 runs for five years from 2008 to 2012 inclusive, concurrently with the Kyoto protocol commitment period. Phase 2 increased the scope of installations included and introduced the facility to 'bank' carbon credits. From 2011 it includes flights within the EU and, from 2012, all flights leaving or landing in the EU. Phase 3 will run from 2013 to 2020. It will have a declining emissions cap (21% reduction in 2020 compared with 2005) and a substantial increase in the proportion of permits that are auctioned.

81 National Audit Office, *Briefing for the Environmental Audit Committee - European Union Emissions Trading Scheme: A review by the National Audit Office*, April 2009

82 Ev 140

of around £11.68 (€13)<sup>84</sup> per tonne of CO<sub>2</sub> is not considered sufficiently high to provide the incentive to the aviation industry to invest the substantial sums that will be required to achieve significant emissions reduction.<sup>85</sup> WWF-UK warned that the EU ETS was liable to be weakened by economic and political self-interests.<sup>86</sup> A further issue for the UK is that making the EU ETS the principal driver for reducing aviation emissions potentially removes aviation from UK Government influence.

65. The airlines are relatively supportive of emissions trading. Mr Ridgway of Virgin Atlantic said: “It will be an extra cost but it is an opportunity for airlines, and it incentivises airlines to make sure they are employing and deploying the best and newest technology.”<sup>87</sup> It is clear, however, that the airlines are seeking some trade off between EU ETS and Air Passenger Duty (APD). “[...] if aviation is brought into a global emissions scheme, then things like APD would no longer have a place.”<sup>88</sup>

### **Committee on Climate Change advice**

66. The Government has asked the Committee on Climate Change to advise it on these matters. Lord Turner, Chairman of the Committee, explained to us the detailed modelling work that was being undertaken, and how the Committee on Climate Change would report in December 2009. On the fundamental issue of whether the projected growth in passenger numbers was compatible with the Climate Change Act and with an 80% cut in UK emissions, Lord Turner said “[...] it is not completely incredible”. This would require emissions reductions of 90% or more in non-aviation sectors to offset a lower level of reduction in aviation emission.<sup>89</sup>

67. Some of the thinking of the Committee on Climate Change can be seen in the letter from Lord Turner to the Secretaries of State for Transport and Energy and Climate Change, regarding the December 2009 Copenhagen conference. The Committee accepts that emissions trading is a useful and economically efficient mechanism for reducing carbon emissions from aviation “for an interim period [...] subject to the caveat that the carbon price in any trading scheme should provide strong signals for appropriate demand management and supply side innovation.”<sup>90</sup>

**68. Reducing the carbon emissions from aviation is crucial both to the success of climate change policies and to the future of aviation. The aviation industry believes that it can rise to the technological challenge but this will happen only if appropriate ‘sticks and carrots’ are in place. The work of the Committee on Climate Change, due for publication in December 2009, is likely to be crucial in helping to determine what is**

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83 <http://www.ecx.eu/EUA-CER-Daily-Futures-Spot>

84 The carbon price is normally quoted in Euros, and at the time of publication, the market price was €13. At the Interbank rate monthly average (0.89830) for November 2009, this is equivalent to £11.68. <http://www.oanda.com/currency/historical-rates>

85 The Tyndall Centre estimates that a carbon price of €100 to €300 per tonne is required. <http://www.tyndall.ac.uk>

86 Q 290 [Mr Lockley]

87 Q 318

88 Q 319

89 Qq 50-52

90 Letter from Lord Turner, Chairman of the Committee on Climate Change, to the Secretaries of State for Transport and Energy and Climate Change, 9 September 2009.

feasible and how it might sensibly be achieved. It would be wrong for us to try to second-guess or prescribe the outcomes. We believe the following principles should apply to future UK policy on aviation emissions:

- a) aviation and climate change are global in nature, and global solutions are the only realistic response;
- b) aviation should be treated equitably in climate change policy—it should not be demonised or assigned symbolic value beyond its true impacts, and
- c) carbon reduction measures should be cost-effective and take account of the economic value of aviation.

69. We are concerned that the EU Emissions Trading Scheme has an appalling track record and that it may prove insufficient to drive investment in low-carbon aviation, especially in these difficult economic times. We await with interest the forthcoming advice of the Committee on Climate Change to the Government on these issues.

## Local environmental impacts

70. The Air Transport White Paper 2003 noted that:

One of the features of air travel is that while many of the benefits are spread across society as a whole, many of the adverse impacts are distributed unevenly. People living near airports have to live with the immediate effects of aircraft noise, air quality problems and increased congestion on local roads. Urbanisation sometimes associated with airport development can also have adverse impacts on landscape and habitats. Action can be taken to mitigate these adverse effects, but it is seldom possible to eliminate them altogether.<sup>91</sup>

71. Whereas a great deal of attention has focused recently on the climate change effects of aviation, less attention has perhaps been paid to the impacts on people and their local environments. We received written evidence from a number of organisations concerned about the local environmental impacts of airport expansion, particularly at Heathrow, but also at Gatwick, Stansted and Bristol airports.

72. London Councils believes that the noise and air quality impacts, and the impact on the health and quality of life of the people affected, “have not been given proper attention by the Government.” Moreover, they point out that:

The impact of aviation is not just restricted to those who live within close proximity to airports. In London, for example, large parts of the capital, even those located several miles away from the main airports experience noise disturbance from aircraft taking off, landing and overflying.<sup>92</sup>

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91 Department for Transport, *The Future of Air Transport*, Cm 6046, December 2003, p29

92 Ev 344. London Councils is a statutory joint committee representing all 32 London boroughs and the City of London.

## Noise

73. According to ICAO, aircraft noise is “the most significant cause of adverse community reaction to the operation and expansion of airports.”<sup>93</sup> Aircraft landing and taking off are the chief sources of aviation noise. However, it is apparent that the mix and types of aircraft, the frequency of overflight, as well as the social and economic circumstances of the people affected are all factors influencing the degree to which communities perceive aircraft noise as problematic.

74. Noise levels from individual aircraft have diminished by as much as 70% per aircraft since the early jets. The international standard is set by ICAO (currently ‘Chapter 4’ which came into effect in January 2006) and substantial gains have been achieved. Nevertheless, the gains have been offset by the growth in air traffic which have made noise a constant, as opposed to a periodic event in some areas. Dealing with noise is a particular issue for airport authorities in relation to their local communities. In some cases, local communities and airport authorities have made local agreements, for example, on the number or types of day and night flights.

75. The Government uses 57dB(a) as the level above which aircraft noise is considered to create “community annoyance”.<sup>94</sup> Approximately 260,000 people are within the Heathrow 57dBA noise contour.<sup>95</sup> Recognising that the relationship between aircraft noise and community annoyance is complex and might have changed since its previous assessment,<sup>96</sup> the Government commissioned a major study—*Attitudes to Noise from Aviation Sources in England* (ANASE), published in 2007.

76. The 2M Group, representing 23 councils in London and the southeast opposed to Heathrow expansion, is particularly concerned about aircraft noise. The group, like others,<sup>97</sup> is critical of the Government’s management of the ANASE study which was expected to provide a new framework for assessing the impacts of aircraft noise. It believes the Government’s rejection of the ANASE findings will lead to an undervaluation of the true impacts and costs of noise.<sup>98</sup>

77. Concerns about the way that the Department for Transport assesses the impacts of aircraft noise and compensates residents are expressed by others also. The Stanwell Moor Residents Group, for example, contends that the technical hurdles for compensation are arbitrary and that the levels of compensation paid are inadequate.<sup>99</sup>

93 International Civil Aviation Organization, *Environmental Report 2007*

94 Noise is measured on the decibel scale. 0dB is the threshold of human hearing, 50dB is around the level of a normal conversation and 140dB is the threshold of pain. A 3dB increase is equal to a doubling in sound pressure but will only just be noticed by a human. 10dB equates to a doubling in the perceived loudness. Aircraft noise is measured with reference to the A-weighted decibel scale, dB(A). The A-weighting reflects the fact that the human ear does not detect all frequencies of sound equally efficiently.

95 Department for Transport, *Adding capacity at Heathrow, Impact Assessment*, January 2009, p 17. According to The Parliamentary Office of Science and Technology, “Aircraft noise already has the potential to affect the quality of life for at least half a million people in the UK – with 80% of those living close to major airports in the southeast of England.” (*Aircraft Noise*, POSTnote 197, June 2003)

96 CAA, DR Report 8402: *United Kingdom Aircraft Noise Index Study*, 1985

97 Ev 210

98 Ev 336

99 Ev 458

78. Noise is not simply a nuisance. Studies by Dr Lars Jarup of Imperial College, London found a “clear exposure response relationship between aircraft noise during the night and the prevalence of high blood pressure. The effects are both short and long term.” High blood pressure has adverse health implications.<sup>100</sup>

79. One of the dilemmas for future aircraft engine design is that it is difficult to optimise both noise reduction and CO<sub>2</sub> reduction in the same engine and industry needs guidance from international bodies as to where it should focus its efforts.<sup>101</sup> We were encouraged by what we heard from the American Association of Aerospace Industries on the potential noise and emissions savings of some new technologies, such as geared turbofan engines.<sup>102</sup> But there is clearly a long way to go before aircraft noise ceases to be a problem.

80. We addressed some of the issues of aircraft noise in our recent Report *The use of airspace*, particularly in relation to tranquil areas such as national parks and Areas Of Outstanding Natural Beauty. We recommended that the Department for Transport and the CAA should examine the case for maximum limits on noise levels and aircraft numbers over sensitive natural areas.<sup>103</sup>

**81. Aircraft noise is a nuisance to a large number of people, which detracts from their quality of life and presents health hazards which are not fully understood. It should be remembered that, as aviation has grown, planes have become quieter and noise levels have reduced for millions of people. The Government must act decisively to ensure that older, noisier aircraft are taken out of use as soon as possible. This should be achieved firstly by seeking to influence international noise standards (set by the International Civil Aviation Organization) and secondly through guidance to local airports.**

**82. The Government needs to revisit its procedures for assessing the impacts of aircraft noise, the compensation arrangements and the effective enforcement of noise regulations. The Government should also review the adequacy of research into the effects of aircraft noise, particularly on human health.**

### **Air Quality**

83. Poor air quality is the other main local environmental impact associated with airports. The Environment Agency told us that

The main pollutants of interest arising from aviation and associated road transport are oxides of nitrogen and particulate matter. Oxides of nitrogen contribute to acid rain and interact with hydrocarbons to produce ground-level ozone which can affect human health and vegetation, including crops. Small particles (usually referred to as PM10) can cause cardiovascular problems.

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100 Department of Epidemiology and Public Health, Imperial College, London

101 Q 37 [Mr Mans]

102 Annex 1

103 Fifth Report of Session 2008-09, *The use of airspace*, HC 163

To put the issue into perspective, the emissions from Heathrow are broadly comparable with those of a major industrial installation. Whereas major industrial sources are regulated by the Environment Agency, airports and aviation are not.<sup>104</sup>

84. It is important to bear in mind that only a minority of the air pollution associated with airports comes from the aircraft. Approximately one third of nitrogen dioxide (NO<sub>2</sub>) emissions around airports are attributable to airport operations, one third to road traffic and the remainder to wider background sources such as industry and domestic heating. These figures vary substantially according to the exact location.<sup>105</sup>

85. London has the worst air pollution levels in the UK and is among the worst in Europe.<sup>106</sup> The Environment Agency states that NO<sub>2</sub> concentrations in the vicinity of Heathrow are likely to continue to exceed the EU air quality limit of 40 micrograms per cubic metre (µg/m<sup>3</sup>) by 2010 when compliance with the limit is required. The Government has announced that it plans to apply for permission to defer compliance until 2015 for a number of areas across the country, including Heathrow.<sup>107</sup> As part of its January 2009 announcement on Heathrow expansion, the Government will give the Environment Agency a new legal duty and powers to enforce air quality limits around Heathrow. The Environment Agency told us that it welcomes this new role and “will make sure these limits are rigorously enforced”.<sup>108</sup>

86. As EU standards for motor vehicle emissions are raised and the UK vehicle fleet becomes cleaner, there is likely to be a reduction in air pollutants from airport traffic. The Government predicts that, “even on conservative assumptions” the area around Heathrow will comply with EU air quality standards by 2020.<sup>109</sup> A shift to electric vehicles would further improve air quality. Over the timescale of the Air Transport White Paper—to 2030—these changes could be significant. However, future improvements in air quality cannot be taken for granted and it is of concern that the UK is unlikely to be able to meet EU air quality standards until 2015, instead of the target date of 2010.

**87. We urge the Government, in partnership with airports and airlines, to bring forward measures to improve air quality around our major airports. The pollutants come from a variety of sources, including aircraft, airport traffic and background sources. The Environment Agency has techniques to assess the air quality impacts for major airport developments and we recommend that the Government and airport developers take full advantage of these.**

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104 Ev 140

105 Figures based on Heathrow airport. See Ev 140-143

106 London Assembly Government, *Every Breath You Take*, May 2009

107 Ev 119

108 Environment 140

109 Department for Transport, *Britain's Transport Infrastructure. Adding capacity at Heathrow: Decisions Following Consultation*, January 2009

## 5 Infrastructure needs

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### Airports

#### *The roles of UK airports*

88. Our witnesses explained the roles of different airports across the UK and how capacity at one airport could not necessarily be substituted for capacity at another, particularly as regards Heathrow.

89. The London airports have different roles and are not necessarily in competition with each other. Heathrow has a unique role. It is a major European hub airport, competing with Paris, Frankfurt and Schiphol airports. Heathrow handles approximately 80 million passengers per annum at its five terminals. It is also the UK's most important freight airport, handling 25% of total UK air freight. However, Heathrow is no longer a significant hub airport for UK domestic flights. As a result of runway capacity constraints, economic factors, including the high value of landing slots and competition from rail, the number of UK cities with flights to Heathrow has reduced to six.<sup>110</sup>

90. It was once planned that Gatwick should be developed as a dual hub and British Airways tried this approach from 1987 onwards. British Airways has subsequently retrenched and, in 2002, concentrated its hub services at Heathrow. Gatwick is now dominated by both long-haul and short-haul point-to-point leisure traffic; its largest carrier is no longer British Airways but easyJet. The low-cost carriers have replaced much of the charter traffic at Gatwick. As a result of the Open Skies agreement, the US carriers which formerly operated from Gatwick have transferred services—despite the high costs incurred in buying slots—to Heathrow where, formerly, they had no access.

91. Long-haul carriers get higher yields at Heathrow while, in turn, low-cost carriers get higher yields at Gatwick than they do at Stansted, a situation which would not change even with additional runways. Stansted is dominated by Ryanair and easyJet (more than 80% of all traffic) and neither appears committed to paying the additional charges necessary to raise capital for a second runway. Both airlines are also threatening to reduce capacity at Luton because of what they regard as unduly high landing charges.<sup>111</sup>

92. Other major UK airports provide point-to-point services, mainly to other UK destinations, to short or medium distance international destinations, and 'spoke' services to hub airports in continental Europe and even in the Middle East and USA.

93. It seems unlikely that Gatwick, Stansted and Luton will ever be anything other than low-cost carrier-dominated leisure airports. They provide predominantly point-to-point services although, especially at Stansted, the density of services has allowed the development of 'self-connecting': the CAA found that 10% of all terminal passengers at

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110 Qq 130-132 (From Aberdeen, Belfast (City and International airports), Glasgow, Edinburgh, Manchester and Newcastle.)

111 *The Times*, 4 September 2009

Stansted are do-it-yourself ‘connectors’.<sup>112</sup> Whereas about 35% of passengers at Heathrow are connecting, Gatwick has only about 12% connecting passengers with fewer still at Manchester. Other smaller commercial UK airports provide more specialist services, such as the TAG Farnborough which is exclusively a business traffic airport.

### **Development**

94. As noted previously, the 2003 White Paper set out how UK airports should be developed in order to meet the forecast growth in passenger demand to 2030. The key decisions were to support a third runway at Heathrow and a second runway at Stansted.

### **Heathrow**

95. Heathrow is operating at full runway capacity and has very little resilience to cope with disruptions.<sup>113</sup> Passenger numbers have grown due to BAA’s increases in passenger terminal capacity—Terminal 5 opened in 2008—and due to a switch to larger aircraft by some airlines so as to make better use of the limited number of landing slots.<sup>114</sup>

96. At first sight, it might seem logical to take pressure off Heathrow by developing intercontinental services from other UK airports. Moreover, many businesses and individuals would no doubt welcome a greater range of direct international air services from their regional airport. However, attempts to do so, notably at Gatwick and Manchester, have had only limited success as they have been unable to sustain the level of demand for international services that is necessary to operate a hub airport. There has been a further concentration of long-haul services at Heathrow since the Air Transport White Paper, and services at Gatwick and Manchester have been relocated to Heathrow following the implementation of the Open Skies agreement with the USA.

97. Representatives from regions outside the southeast of England, such as regional airport operators, are supportive of Heathrow expansion. Their support is partly based on the hope that this will provide sufficient slots to allow regional services back into Heathrow. However, due to the greater profitability of allocating slots to long-haul flights, the trend of declining regional flights to Heathrow is unlikely to be reversed.<sup>115</sup> BAA expressed hopes that this might happen but could provide no guarantees.<sup>116</sup> Various witnesses suggested that slots should be reserved for UK regional services but the Department for Transport believes this would be prohibited under EU legislation.<sup>117</sup> The Department for Transport also takes the view that it would not be appropriate to use Public Service Obligation

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112 Civil Aviation Agency, *Connecting passengers at UK airports*, November 2008

113 Statement by the Secretary of State for Transport, Rt Hon Geoff Hoon MP [HC Deb 15 January 2009, cols 357-358]

114 Q 394

115 Ev 305

116 Q 393

117 Ev 118

arrangements to support regional flights to Heathrow.<sup>118</sup> This is in contrast to what it envisaged in its 2003 White Paper.<sup>119</sup>

98. In contrast to the USA where airports are government-owned, usually by the state or municipality, UK airports are mainly private businesses with little investment from the taxpayer.<sup>120</sup> The issue of new infrastructure is, therefore, not so much one of affordability but of planning permission. The economic benefits must be set against noise, air quality, increased traffic and urbanisation, on which a public interest judgement must be made. We accept that these are significant concerns with regard to a third runway at Heathrow. The Government has made specific conditions in order to moderate the local environmental impacts but it cannot eliminate them entirely. These conditions include a legally-binding process to ensure that additional flights will only be permitted if this can be done without breaching noise and air quality limits. It has also proposed a new “green slot” approach, to incentivise the use at Heathrow of the most modern aircraft.<sup>121</sup> Air quality may improve, but significant noise problems are likely to remain. Ultimately, a judgement has to be made regarding the economic benefits to the UK and the environmental costs.

99. BAA points out that Heathrow is vulnerable to foreign competition. It has only two runways, operating at 99% capacity, in comparison to Paris which has four runways, Amsterdam five, and Frankfurt three, with a fourth approved and due to open in 2011. In 1990, Heathrow was second in Europe in terms of flights to the rest of the world, but by 2010 it will have dropped to seventh—behind Frankfurt, Paris, Amsterdam, Munich, Rome and Madrid.<sup>122</sup>

100. We are not persuaded that refusing a third runway at Heathrow would be helpful in reducing greenhouse gas emissions. Heathrow’s competitor airports have expanded their runway capacity and have plans to increase flights and passenger numbers. Constraining Heathrow will only shift flights to other European airports. Climate change and emissions from aviation are international problems that cannot be solved by isolated restrictions on airport development.

101. BAA announced in September 2009 that it would not submit a planning application for the third runway until after the General Election. Lord Adonis told us that he is not unduly concerned at this stage. “We have always made it clear [...] that it is a matter for BAA when it brings forward the planning application. They have chosen not to bring it forward so far, but that is a matter for them.”<sup>123</sup> This is wholly inconsistent with the Government’s assertions of the present need for a third runway. This also introduces an additional uncertainty into the timescale for obtaining planning consent and constructing the runway. The application, if submitted, will be determined by the Infrastructure

118 Ev 118

119 Department for Transport, *The Future of Air Transport*, Cm 6046, December 2003, p 57

120 The main exception is the Manchester Airports Group which is wholly owned by the Greater Manchester local authorities. At some other regional airports, such as Birmingham International, the local authorities have a minority interest. The Scottish Government sponsors the 10 main airports in the Highlands and Islands Region.

121 Department for Transport, *Transport Infrastructure. Adding capacity at Heathrow: Decisions Following Consultation*, January 2009, pp 24-25

122 Ev 399

123 Transport Questions with the Secretary of State, *Transcript of oral evidence*, 4 November 2009, Q 88

Planning Commission which will operate from March 2010. The Government intends to publish a National Policy Statement on airports in 2011.

**102. In view of the economic benefits to the UK, we endorse the Government's January 2009 decision to support a third runway at Heathrow and an additional terminal. We note the conditions for noise and air quality, imposed by the Government, and arrangements to limit CO<sub>2</sub> emissions from aviation generally. It is crucial that these are applied effectively. We are concerned, however, about the lack of clarity on the timescale for completion of this project.**

**103. Even with a third runway at Heathrow, it is unlikely that the airport will become a hub airport for many UK cities. In order to maximise the economic benefits of an enlarged Heathrow, it is essential that direct access from the national rail network to Heathrow be provided.**

### **Stansted and Gatwick**

104. The case for an additional runway at Heathrow is based on improving the resilience of an airport that is already operating at full capacity. By contrast, the case for a second new runway in the southeast is based on predicted growth in passenger demand.

105. We have followed the development of the Department for Transport's passenger forecasts with interest. The Department for Transport's 'central case' forecast for 2030 has reduced from 500 million passengers per annum (mppa) in the 2003 forecast, through 485 mppa in the 2006 forecast, to 465 mppa in the 2009 forecast. A Department for Transport 'sensitivity test' shows that, if the calculations are based on rates of economic growth from the November 2008 Pre-Budget Report, demand in 2030 is forecast at 435 mppa.<sup>124</sup> Some witnesses calculated that, using 2009 GDP growth rates, the forecast for 2030 is closer to 400 mppa.<sup>125</sup> The Department for Transport contends that its central case—465 mppa—is the most appropriate figure for long-term planning. However, some of our witnesses argued that the impact of the recession would be substantial and lasting: although growth would return, the level of demand in 2030 would be affected. Whichever recent figure is used, it appears that the shortfall in airport capacity in 2030—the difference between the Department for Transport's estimate of unconstrained demand and the demand that would be accommodated with the two proposed additional southeast runways—has now disappeared.<sup>126</sup>

106. The planning inquiry into a second runway at Stansted is currently on hold. The case is more finely balanced and the recession and the consequent reduction in passenger numbers may impact on its viability and implementation date.<sup>127</sup> Whereas most of our witnesses were clear about the need for expansion of Heathrow, they were less exercised about a second runway at Stansted. Whilst some local authorities, such as Manchester councils, have backed local airport expansion strongly on economic development grounds,

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124 Annex 2

125 Ev 471

126 Annex 2

127 Q 10 [Dr Bush]

this does not appear to be the case with Stansted.<sup>128</sup> Outside London and the southeast of England, runway capacity issues are less critical.

**107. We are not convinced that a national case for an additional runway at Stansted has been made.**

108. The enforced sale by BAA of Gatwick airport is intended to lead to greater competition between airports in the southeast of England. Gatwick airport submitted evidence to us independently of BAA, stating that it expects its annual passenger traffic to reach 40 million within a decade and that it is keen to explore the option of a second runway at Gatwick.<sup>129</sup>

109. Some witnesses told us that, if a third runway at Heathrow were to be constructed, a second runway at Gatwick would not be viable—at least, not within the 2030 timescale.<sup>130</sup> There is, in any case, a legal restriction that prevents construction of any additional runway at Gatwick prior to 2019. However, other witnesses considered that, in terms of demand, Gatwick would be a better location for a new runway than Stansted and that, in terms of airport planning approval, 2019 was not far off.

**110. The delays in arriving at a final decision on a second runway at Stansted, coupled with the recession and declining passenger numbers, mean that a second runway at Stansted is unlikely to be completed prior to 2019 when the restriction on an additional runway at Gatwick expires. The Government should reconsider whether the additional runway, if required, should be located at Gatwick rather than Stansted.**

## High-speed rail

111. Earlier this year, Lord Adonis set out his *Transport manifesto*. He noted that “the most far-reaching policy departure [...] in its implications for Britain’s transport system was the decision to establish the High Speed Two company, and to ask it to recommend to the Government a north-south high-speed rail plan by the end of the year.” Part of the initial remit of High Speed Two (or “HS2” as it is now generally called) is to investigate the options for a high-speed rail link between London and the West Midlands, including a link to Heathrow.

112. The Eddington Study was relatively dismissive of high-speed rail but the Government and main Opposition parties are now broadly supportive. We have previously stated our support for new high-speed rail lines in the UK.<sup>131</sup> An inquiry into aviation is not the place to consider this subject in depth the case for high-speed rail.<sup>132</sup> However, it is important to clarify the extent to which rail might provide an alternative to short-haul flights.

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128 Ev 255

129 Ev 461

130 Q 12

131 Tenth Report of Session 2007-08, *Delivering a sustainable railway: a 30-year strategy for the railways*, HC 219, para 28

132 The Committee is inquiring into high-speed rail in its current inquiry into the *Priorities for investment in the railways*.

113. Both ‘sides’ in the airport expansion debate were very positive about high-speed rail. BAA would welcome high-speed rail, especially if it served Heathrow. The airlines were also in agreement about investment in high-speed rail and in rail generally.<sup>133</sup> Similarly, the WWF-UK,<sup>134</sup> 2M Group<sup>135</sup> and other organisations opposed to airport expansion also strongly supported the development of high-speed rail.

114. Views diverge, however, on the extent to which improved rail services or new high-speed rail lines would reduce the number of short-haul flights and free up capacity at the busiest airports in the southeast, particularly at Heathrow. Airlines and airports believe that high-speed rail is not an alternative to airport expansion and, while desirable in its own right, it makes little difference to the strategic decisions on airports. The Airport Operators Association said that “Rail-air is a false choice.”<sup>136</sup> Mr Harrison explained that easyJet, the largest short-haul airline in the UK, already has a policy of not operating on routes which take less than four hours by rail. “[...] it is a fallacy to think about high-speed rail as some sort of substitution for short-haul flights. They do different things and they are complementary.”<sup>137</sup>

115. Mr Ridgway of Virgin Atlantic said that a high-speed rail line might free up some 2–3% of capacity at Heathrow which would be beneficial but would make little difference to the issue of runway capacity. Mr Carrivick (BAR UK) pointed out that a new high-speed rail line would take many years to become operational whereas additional runway capacity was needed now.

116. High-speed rail has proved to be highly effective at growing demand for travel between cities less than four hours apart by rail. It also tends to take up much of the growth in travel that might otherwise be accommodated on short-haul flights. Eurostar, the only UK company that has first hand experience of operating high-speed rail services between UK and continental Europe, provides useful evidence. Since 1994, it has more than doubled the *total* number of passengers travelling by air or rail between London and Paris. The market share for rail between London and both Paris and Brussels is now in excess of 70%. Eurostar concludes that an 80% share for rail is typical for journeys of approximately two hours, and that high-speed rail attracts more than 50% of the market share for journeys of up to 3.5 hours.<sup>138</sup>

117. Eurostar is more circumspect about the extent to which high-speed rail can eliminate the need for existing short-haul air services. This has happened on the Paris-Brussels route and, according to Dr Hamprecht of Deutsche Bahn, many French domestic services have

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133 Q 335

134 Ev 168

135 2M is a collation of 23 councils in London and the southeast opposed to expansion of Heathrow airport. See Ev 336.

136 Ev 271

137 Q 334

138 Ev 110















































































































