

The future of aviation - Consultation on air transport policy

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Foreword

**By the Deputy Prime Minister and Secretary of State for the Environment, Transport and the Regions
- The Rt Hon John Prescott MP**

Over the last 50 years we have seen a dramatic increase in the amount of air travel across the world. In the UK many more people now fly to holiday destinations or to visit friends and family. Good air links are extremely important to UK businesses, providing access to new markets, as well as bringing investment to the UK. Air transport links are therefore essential to our overall transport network.

We are entering a crucial period for the future of air transport. Demand for air travel is continuing to grow. At the same time, the UK's major airports are reaching their capacity limits. We therefore face many difficult issues associated with the growth of aviation.

We need to ensure that, as a country, and as individual consumers, we are getting the most from our aviation services and that the future of the aviation industry is a sustainable one. Aviation has great economic, social and environmental relevance in the UK. We need a long term framework that will maximise the beneficial aspects of aviation and minimise the negative effects.

We intend to set this out in a new White Paper on air transport, which will fulfil our commitment to prepare a new UK airports policy and to bring forward new policies on civil aviation. This consultation document is the first major step towards the new White Paper. We have invited ideas and views on a wide range of aviation and airports issues that underpin our air transport policy. We have examined consumer issues; environmental questions; integration with surface transport systems; the best use of airspace and airport capacity; and planning for airport development.

This is an important step in the development of our future air transport policy. I hope that you will take this opportunity to examine the issues facing the future development of the industry and give your views on a new policy framework for UK aviation. Your response can help shape the new White Paper on air transport.

John Prescott

Chapter One: Introduction and purpose

1. In the integrated transport white paper *A New Deal for Transport: Better for Everyone*¹, the Government announced that we would prepare a UK airports policy looking 30 years ahead and would bring forward new policies on civil aviation. We will bring these together in an air transport white paper that will provide a policy framework for the future of aviation and airports in the UK. By looking so far ahead, the white paper will provide a structure for the long-term development of the UK civil aviation industry.

2. This is an opportunity to develop a fully integrated approach to air transport policy. The white paper will need to consider aviation's effect on:

- consumers;
- the economy;
- the environment;
- regional development;
- urban regeneration;
- policies on integrated transport; and
- policies of local authorities and Regional Development Agencies.

3. The Government wants to consult widely in producing the white paper. We recognise the importance of taking into account the views of all interested parties. There will therefore be several steps leading to the production of the white paper.

4. This consultation document examines the issues underpinning air transport policy. It invites your ideas and views on a wide range of aviation and airport issues, but it does not aim to be exhaustive. It focuses on the main issues on which the Government will need to take decisions in drawing up the white paper. We would, however, welcome your comments on any aspect of aviation which you consider material to future policy.

5. This document will be followed next year by a set of six regional consultation documents. These will cover the north of England, the south west of England, the midlands, Wales, Scotland and Northern Ireland. They will be based upon a series of regional studies of air transport services across the UK, which have examined the economic, social and environmental impacts of a range of air service and capacity options in each region.

6. We are also studying issues in the south east and east of England. The South East and East of England Regional Air Service Study (SERAS) will look at all options for future development in the region, ranging from the impact of no additional capacity provision other than that already in the planning system, to various options for additional capacity within the region. This study will also be followed by public consultation. We will not issue this until a decision has been taken on the fifth terminal at Heathrow.

7. The white paper will be the culmination of this process. Responses to this consultation paper, and the regional consultation papers will be a significant input to the white paper. The white paper will also take account of the Government's decision on a fifth terminal at Heathrow.

8. While the Government is preparing the white paper, certain infrastructure developments may be proposed at UK airports. Decisions taken during this period will be based upon existing planning and airports policy, set out mainly in:

- planning policy guidance notes;
- the 1984 airline competition policy white paper²;
- the 1985 airports white paper³; and
- the 1998 integrated transport white paper⁴.

9. The closing date for responses to this consultation document is Thursday 12 April 2001. You can find out more about the consultation process, including where to send responses and where to obtain further copies of this document, in annex C.

Sustainable aviation

10. The civil aviation industry has reached an important stage in its development, both globally and in the UK. Demand for air travel has been growing rapidly and the industry is now facing capacity and environmental constraints. This is particularly true at some of the major UK airports. It is also true in other European countries where current capacity is starting to reach its limits and the environmental effects of further development are assuming more importance.

11. The Government believes that civil aviation's central challenge is to deliver economic, social and environmental goals while ensuring that the industry continues to operate efficiently and effectively.

12. The new air transport white paper should establish a framework which will ensure that the long term development of aviation in the UK is sustainable.

13. Aviation has implications at global, national, regional and local level for all four aspects of sustainable development, as defined by the Government's sustainable development strategy⁵ :

- *Maintenance of high and stable levels of economic growth and employment:* the UK has a strong aviation industry, including airlines, airports, aerospace manufacturers and supporting industries. They make a significant contribution to national gross domestic product (GDP), as well as facilitating growth in other industries. The aviation industry also provides many jobs, both directly and indirectly.
- *Social progress which recognises the needs of everyone:* aviation brings benefits through employment, cultural exchange and opportunities for travel. Foreign travel and holidays are now within reach of a broad cross-section of the population for education, leisure, and visiting friends and families.
- *Effective protection of the environment:* aviation affects climate change, local air quality, noise levels, biodiversity, energy use, waste and water. There are also environmental effects associated with travel to airports. Any associated health effects also need to be considered.
- *Prudent use of natural resources:* aviation consumes many natural resources in particular, fossil fuels and the raw materials necessary for producing aircraft. Airport development can also involve significant land use and urbanisation of the surrounding area.

14. The new white paper will need to identify the main principles which should underlie future development. Defining a framework that will maximise the beneficial effects of aviation and minimise the negative effects will not be easy. Should we choose policies that respond to the demands of consumers and allow current growth patterns to continue, whilst mitigating the negative effects as far as possible? Or are the costs of this approach too high and should we therefore choose

policies to limit environmental impacts and ration a limited supply by pricing or otherwise? Or can a balance be found between these approaches? In each case there are likely to be long term costs and benefits.

15. The main issues which we will need to address include:

- protecting the interests of air travellers as consumers;
- limiting negative environmental and social effects;
- the best use of airport and airspace capacity;
- integrating airports into the transport network;
- the role of UK airlines; and
- the role of regulation and competition.

16. This consultation document gives information on all of these subjects. It identifies the main questions that we will need to answer in a new long-term framework for development. In many cases, options in one area will have a direct effect upon those in another. In formulating responses, you will need to bear in mind the connections between different areas.

17. In considering the future of air transport in the UK, we also need to think about if, when, where and how we may provide new capacity. This document does not specifically address these issues. Options and packages for additional capacity will be the subject of these separate consultations next year on individual regions across the UK.

1 *A New Deal for Transport: Better for Everyone* the Government's White Paper on the Future of Transport Cm 3950, DETR, July 1998.

2 *Airline Competition Policy* Cm 9366, October 1984.

3 *Airports Policy* Cm 9542, June 1985.

4 *A New Deal for Transport: Better for Everyone* the Government's White Paper on the Future of Transport Cm 3950, DETR, July 1998.

5 *A Better Quality of Life: A Strategy for Sustainable Development in the UK* Cm 4345, DETR, May 1999.

Chapter Two: Review of the aviation scene

This chapter provides an overview of aviation issues in the UK. The following chapters provide further information on specific topics.

International framework of the aviation industry

18. Aviation is, by its nature, a global industry. All of the main aviation countries adhere to the Chicago Convention of 1944, which established an international framework for the civil aviation industry. It recognised national sovereignty over airspace, which led to the organisation of international aviation on the basis of bilateral agreements between signatory countries.

19. It also set up the International Civil Aviation Organisation (ICAO), an inter-governmental organisation established under the auspices of the United Nations. ICAO guides and regulates international civil aviation. It sets safety, security and environmental standards for international aviation which all signatories are expected to follow.

20. ICAO's role in establishing common operating standards is very important. ICAO can take action against contracting states for non-compliance. Therefore, as a signatory of the Chicago Convention, failure to comply with the Convention could result in legal action against the UK. This means that governments are more constrained and unilateral policy change may be very difficult. Instead, countries must often work within ICAO towards change.

21. The European Civil Aviation Conference (ECAC) was established in 1955 as a pan-European forum for civil aviation issues. Its main aim is to harmonise civil aviation policies and practices between members.

Role of the EU

22. Since the mid-1980s the European Union has emerged as the international organisation with the most immediate effect on the development of UK aviation policy. In many areas, UK aviation policy is constrained or affected to a greater or lesser degree by Community legislation.

23. The creation of a single aviation market within the European Economic Area (EEA)⁶ culminated in April 1997 in the liberalisation of cabotage⁷. This ended the use of traditional bilateral negotiations to organise air services inside the EEA. It opened up market access within a common regulatory framework. The EU has gone on to legislate on various aspects of aviation that impinge on the single market. It has become increasingly involved in technical fields such as safety, air traffic management and the environment. In some cases it has given legislative backing to initiatives agreed in ICAO or ECAC.

Role of government

24. Many policy and regulatory aspects of the aviation industry are therefore governed by the outcome of negotiations between several countries. It is the responsibility of governments to deliver their obligations under these agreements and to work within that framework to achieve their national goals.

25. It is also the role of the UK Government to establish and ensure implementation of an effective UK aviation policy framework. This includes establishing an effective planning system, negotiating bilateral air services agreements outside the EEA, and setting and enforcing security and local environmental standards. These tasks are carried out by the Department of the Environment,

Transport and the Regions (DETR). Other government departments are also involved in various aspects of aviation policy, in particular the Department of Trade and Industry (DTI) in the areas of competition policy, consumer affairs and supporting the export of aerospace equipment and services.

26. Devolution has brought some changes to the role of the UK Government. Most aviation policy and legislation remain matters for the UK Parliament and Government. The responsibilities of the devolved administrations vary. For Scotland, the safety and regulation of air transport are still for the UK Government. The Scottish Executive has some powers relating to airports, including powers on certain planning and environmental issues. The National Assembly for Wales now has planning powers, including those that affect aerodrome matters. The Northern Ireland Assembly and the Northern Ireland Executive have powers relating to aerodrome issues, and, subject to the consent of the Secretary of State, can legislate on civil aviation matters.

27. The Government has a general presumption in favour of liberalising aviation services. Increasing free and fair competition between airlines is the most effective way of securing benefits for consumers, and promoting economic efficiency and innovation. Greater commercialisation, not only of airlines but also airports and air traffic control services, has given governments less direct control, but a more important role in ensuring fair competition and maintaining standards.

28. The main UK regulatory agency is the Civil Aviation Authority (CAA) which has responsibilities for safety regulation, economic regulation and consumer protection. In addition, responsibility for airspace policy, currently shared with the Ministry of Defence, will move wholly to the CAA once the provisions in the Transport Act 2000 take effect. DETR separately regulates aviation security. The Office of Fair Trading and DTI implement the Competition Act for aviation. The Transport Act also grants the CAA concurrent powers in respect of competition matters relating to air traffic services.

Structure of the UK industry

29. The UK's airports are crucial to the aviation industry. The UK has several important international hub airports. ICAO figures for 1998 show that Heathrow served more international passengers than any other airport in the world, and Gatwick was sixth in the list. Heathrow handled over 50 per cent more international passengers than Paris Charles de Gaulle airport, Frankfurt airport or Amsterdam Schiphol airport. The dominance of Heathrow is mainly due to historical and geographical advantages in relation to trans-Atlantic traffic. About 40 per cent of EU-North America traffic uses a UK airport and the majority of that goes through Heathrow.

30. The Government is also keen to encourage the growth of regional airports to meet local demand, provided that expansion is consistent with sustainable development principles. Regional airports mainly offer feeder services to hubs in the UK and continental Europe, and charter services to holiday destinations. The competition from airports outside the UK for connecting traffic offers greater choice to UK regional consumers, but it is likely to have a negative effect on UK airlines.

31. The larger regional airports, such as Manchester and Birmingham, also provide direct services on thicker international routes. Taking account of all services, such airports now serve a large number of international destinations. In 1999, Heathrow served 172 international airports, Manchester airport served 135 and Birmingham served 75⁸. At some smaller airports, cargo operations and scheduled services operated by low cost, no-frills passenger airlines have grown particularly rapidly.

32. UK airlines are also a very important sector of the UK aviation industry. There are more than 40 UK airlines currently operating larger aircraft⁹. They operate scheduled and charter passenger and cargo services. British Airways (BA) is the largest, accounting for about half the UK airline industry output. The UK's policy has been to encourage competition between UK airlines with the objective of fostering a stronger industry, focused on the needs of its customers, and better able to compete internationally. Unlike other major European airlines, BA has for many years faced effective competition from domestic rivals, and low cost carriers now compete on domestic and short haul scheduled routes for business and leisure travellers. The UK also has a thriving charter industry.

33. The last few years have seen the development of global alliances, through which airlines aim to achieve economies of scale and to provide a more extensive range of services and destinations. Examples include the oneworld alliance of which BA is a leading member, and the Star alliance embracing United Airlines, Lufthansa and their partners, including British Midland. We have also seen airlines effectively merge their operations, subject to the constraints of international treaties, as with Swissair's acquisition of a stake in Sabena.

34. Airlines have also sought to extend the service they offer through code-sharing and franchising, deepened in some cases by cross-shareholdings. In these, typically a smaller airline operates thinner (often regional) routes using the brand and marketing services of a larger airline which would not be able to operate such routes profitably itself. These sorts of alliances and franchising agreements may raise competition and consumer concerns. These are referred to in more detail in the chapters on *Airlines and Consumer issues*.

35. The other main sectors of the UK aviation industry include air traffic management and aerospace manufacturers. We look at air traffic management issues in more detail in the chapter on *Airspace*. The UK has a very successful aerospace manufacturing industry. The Government recognises the important contribution that it makes to the UK economy. However this document does not specifically address issues affecting the aerospace industry.

International context

36. There are several reasons for the leading position of the UK, and the London airports in particular, in world aviation. The UK has an open economy and participates heavily in international trade. London is a major world city with a particularly strong position in the international financial sector. In common with other northern European countries, many people in the UK fly to warmer climates for holidays. Language, cultural and business affinities have encouraged particularly large flows of passengers between the UK and North America, for both business and leisure.

37. The UK has also gained an advantage through having a range of competitive and efficient airlines, in both the scheduled and charter sectors. We have seen much more growth in the low-cost airline sector than any other European country to date. The UK has also benefited from having been one of the first countries to introduce a more commercial approach to airport management. This has helped to ensure that UK airports meet the needs of their users while keeping costs low.

38. The result is that many of the heaviest air passenger flows in Europe are between London and other major European cities. There are many more flights to more cities in North America from the UK than from any other country in Europe. This has enabled UK airlines to attract a large amount of traffic between continental Europe and North America, connecting at Heathrow or Gatwick, particularly in the last decade.

39. However, circumstances have been changing in recent years. Airlines in other European countries have been developing hub operations at their bases, in particular at Paris Charles de Gaulle, Amsterdam Schiphol and Frankfurt airports. The table below shows the comparative international air transport movement (ATM) and passenger figures for these airports in 1998.

Figure 1		
Airport	ATMs (thousands)	Passengers (millions)
Heathrow	372	53
Amsterdam	363	34
Paris CDG	360	34
Frankfurt	311	34

40. By scheduling flights in waves of arrivals and departures, airlines can offer attractive connections to a wide range of destinations. This connecting traffic allows the airline to provide services to destinations that would not be viable on the basis of point-to-point traffic alone, or to offer higher frequencies than would otherwise be possible.

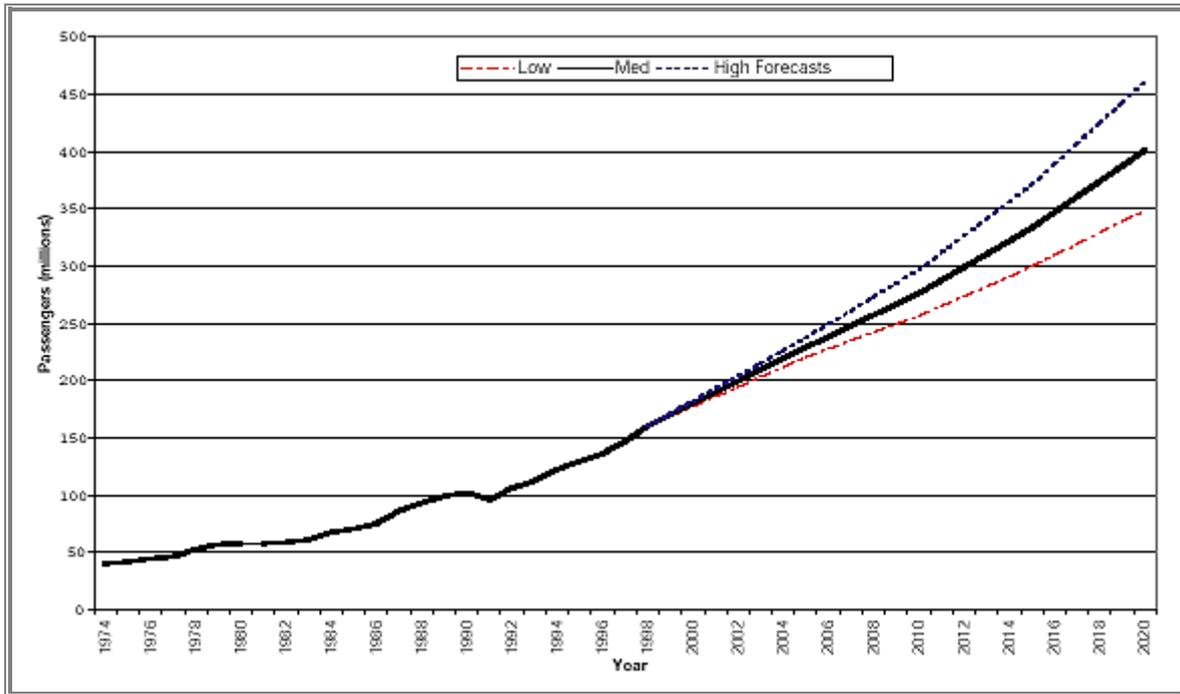
41. Charles de Gaulle airport has opened a third runway to accommodate the higher number of flights and has a fourth runway under construction. At Schiphol, a fifth runway is planned to open in 2003. By contrast, the five London airports (Heathrow, Gatwick, London Luton, London Stansted and London City) have six runways between them. Heathrow has only two parallel runways, both of which are fully used for almost the whole day. This results in a large amount of frustrated demand. The same is true for much of the day at Gatwick, which has only one runway. New capacity issues are therefore very important to the future development of air transport in the UK. The separate regional consultation papers will look at options for the provision of capacity in the UK.

Demand for air transport

42. Over the past 20 years the number of passengers carried into and out of UK airports has trebled, and air transport movements and freight movements have more than doubled. This phenomenon is not confined to the UK. All developed countries have seen similar growth in aviation, mainly driven by general economic growth and reductions in the real price of air travel.

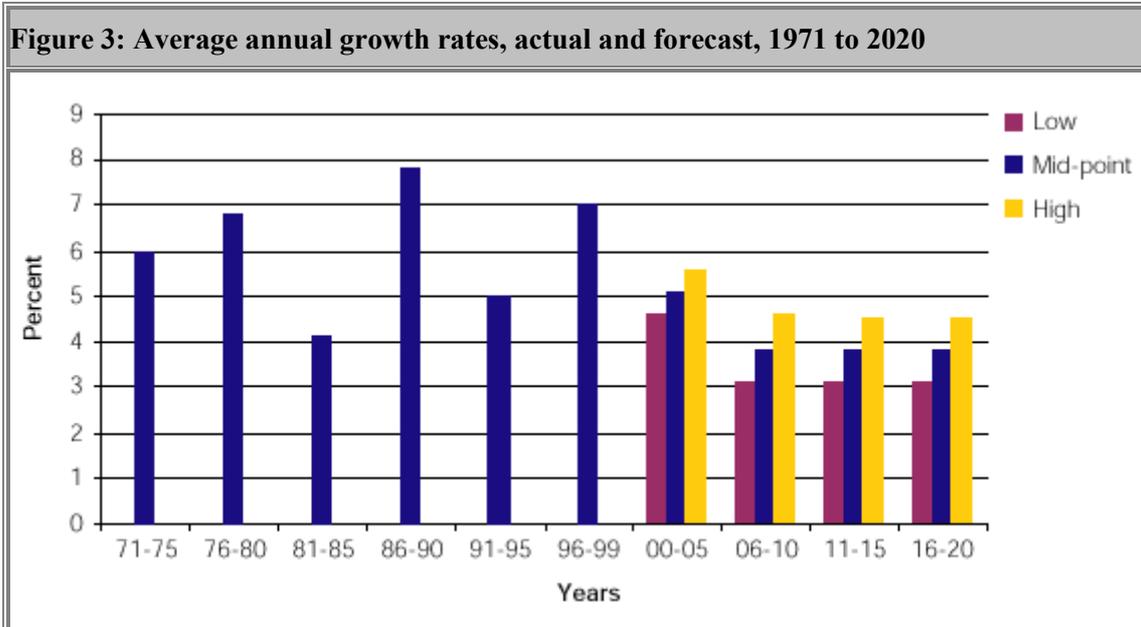
43. UK air traffic forecasts produced by DETR¹⁰ show that unconstrained demand for passenger air travel may more than double by 2015. Figure 2 shows past growth in air traffic and the Department's central forecasts of demand. The figure also shows the low and high demand scenarios, which reflect the likely range of values, given the uncertainty in producing forecasts.

Figure 2: Actual and forecast passenger numbers at UK airports, 1974 to 2020



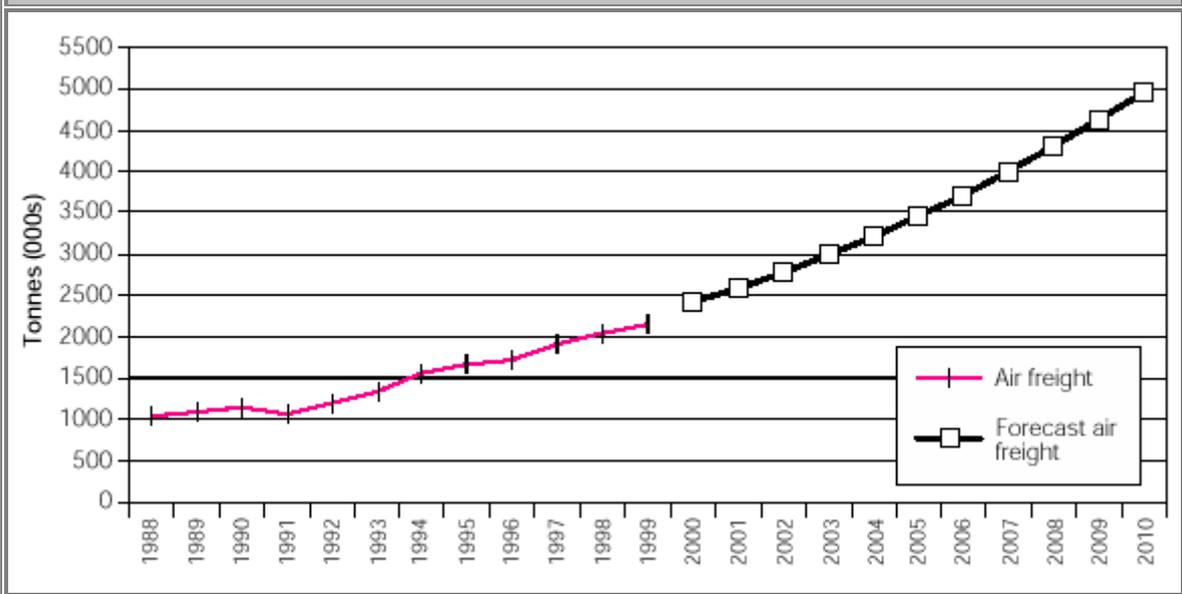
44. Figure 2 also shows that there was a 73 per cent increase in the total number of passengers carried at UK airports in the 1990s. Over the same period the total number of air traffic movements at UK airports increased by 48 per cent.

45. Figure 3 shows past and forecast annual growth rates of terminal passengers at UK airports. Average annual growth rates have generally been declining over time as the market moves towards maturity and we expect this trend to continue. The forecast average growth rate from 1998 to 2020 is 4.25 per cent per year under mid-point forecasts, with slightly more rapid growth in the earlier years and lower growth in the later years.



46. Cargo air traffic has grown even more rapidly. Over the 1990s the tonnage carried increased by 7 per cent a year¹¹ and future unconstrained growth is projected at a rate of 7.5 per cent a year to 2010¹².

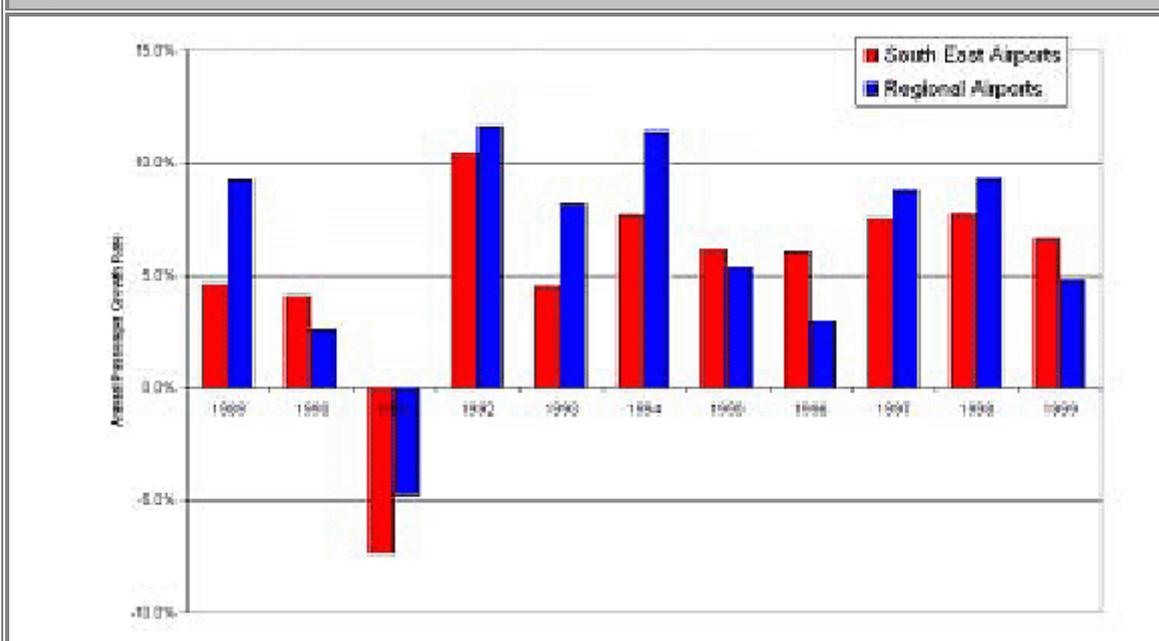
Figure 4: Air freight forecasts



47. The chapter on *Air freight* has further information on cargo traffic.

48. When historic air traffic figures are broken down by airport they show that regional airports have, on average, grown faster than the London airports during the 1990s. The number of passengers carried to or from the London airports rose by 66 per cent over this period while at the regional airports this figure grew by 78 per cent. The share of UK international traffic handled at regional airports also grew over the 1990s, from 25 per cent in 1989 to 28 per cent in 1999. Figure 5 illustrates the rate of growth of passenger traffic at regional airports compared to the south east airports over the 1990s.

Figure 5: Growth rates of passenger traffic at regional airports compared to the south east airports, 1989 to 1999



49. Charter services account for the majority of international traffic at regional airports, but the numbers of passengers on scheduled services at regional airports have almost tripled over the last 10

years. The proportion of regional passengers travelling via the London airports has also been declining. In fact, 80 per cent of all passengers who end their journey at Gatwick and Heathrow airports have a final destination in the south east. We expect this trend to continue.

50. Growth rates in the UK in recent years have been heavily influenced by the expansion of scheduled low cost carriers. The DETR forecasts show exceptionally rapid growth in this sector between 1998 and 2005 of 15 per cent a year on average. They offer a different service to the incumbent airlines, focusing on low fares with a single class of service. They also tend to operate from airports that give them fast turn round times and low airport charges on which their service depends.

51. This reflects the success of the single market in aviation within the European Economic Area since the third package of aviation liberalisation measures in 1993. Airlines are now free to fly where they wish within this common area and set fares according to the market. The low cost airlines have succeeded in tapping a well of pent up demand for air travel which was not, or only partly, catered for under the restrictive bilateral arrangements which existed before. In this way, they have driven into new markets. Airports, often in secondary locations, have been keen to accommodate them at low charges in order to benefit from the stimulation of demand.

52. The Government does not claim that its air traffic forecasts are an accurate prediction of what will happen. They indicate what demand might be if there were no constraints on capacity. They are therefore a useful tool in policy making. A look at previous forecasts and actual growth shows that during the 1990s, levels of traffic have typically exceeded the forecast range, although they have been close to the top end of it. However, we can attribute this in some cases to unforeseen developments, such as the growth of low cost carriers during the 1990s.

53. Forecasting developments after 2020 is more speculative. Growth rates may well decline as the market for air travel approaches maturity. But the timing and scale of any decline are very hard to predict. New communications technologies may also affect the growth of business travel. It might be thought that new technologies would reduce the need to travel. However, electronic communications seem to have increased the demand for international business travel, as companies operate on an increasingly international scale and therefore have a far larger customer and supplier base spread over a wider area. The effect of e-commerce is also unclear. It might be expected that demand for rapid deliveries over long distances will rise, potentially having a large effect on the air cargo market. The DETR has commissioned a study to identify future commercial trends affecting the aviation industry.

54. There is already a shortage of capacity at some airports because of runway or terminal constraints. Demand for runway slots at Heathrow already significantly exceeds availability for almost the whole day. There is no spare capacity in the peak hours at Gatwick and pressure is developing on peak hour capacity at Stansted and Luton. Runway capacity is less of an immediate issue at regional airports, but at many of these there will be a demand for additional terminal capacity within the next decade. As traffic increases, air traffic control capability may also impose constraints.

55. The shortage of capacity is leading to pressure to increase provision and to find ways of making more efficient use of existing infrastructure. But we also must consider ways to reduce the environmental effect of current and future levels of traffic.

Consumer issues

56. The commercial freedoms associated with the creation of a single aviation market within the EEA and the growth of the low cost carriers have brought tangible benefits for many customers in terms of lower fares and greater choice of services. But as the volume of air traffic has grown, concerns have arisen about whether airlines and airports offer passengers the quality of service and consumer protection they are entitled to expect. The Government recognises that there can be a legitimate trade-off between fare levels and quality of service, but all passengers have a right to certain minimum standards.

57. Public attention has increasingly focused on issues such as:

- provision of information both before and during journeys;
- extent of delays and treatment of passengers when delays occur;
- lost or damaged baggage;
- facilities for passengers with disabilities;
- availability of advertised low fares and improved tariff information at the time of booking;
- queuing times at check-in and baggage collection;
- cleanliness, maintenance and signing at airports;
- health and comfort issues in aircraft, such as seat pitch and air quality; and
- handling of complaints.

58. In some of these areas airlines have contractual obligations to passengers, which may need to be strengthened or extended, while in others voluntary commitments may be sufficient. Many of these matters are best dealt with at international level. The Government warmly welcomes the action programme recently begun by the European Commission. We will work actively to pursue the interests of UK passengers.

Economic and social effects

59. The UK's aviation industry makes a substantial contribution to our national economy. It makes a large direct contribution through the creation of jobs and through its contribution to GDP. Good air transport links also have the potential to improve the productivity and competitiveness of the economy. Aviation helps markets to integrate, and trade to expand. Proximity to well served air routes is often one of the key considerations affecting where international companies choose to invest. In this way, aviation supports foreign investment both into and out of the UK, allowing the UK to benefit from international trade.

60. It is also an important part of the transport infrastructure. Many important industry sectors make heavy use of aviation. For example, the electronics and pharmaceuticals industries are heavily dependent on aviation for rapid access to markets. Many more parts of the economy depend on successful air transport links for business travel.

61. The air transport links to remote areas of the UK are particularly important. These provide essential links for businesses and local people to the rest of the country, connecting them to services and businesses that cannot be provided locally.

62. Greater opportunities to travel also bring cultural benefits. Aviation promotes tourism into and out of the UK. More flights and cheaper fares have also enabled many people in the UK to enjoy the benefits of travel for education or for visiting friends and family.

63. If the aviation industry continues to grow, the beneficial economic effects are likely to increase. These should help to maintain the UK's competitiveness and productivity.

Environmental effects

64. But air transport also affects the environment, both at a global level as a contributor to climate change, and at a more local level.

65. In December 1999, the Intergovernmental Panel on Climate Change (IPCC) published a report on aviation and the global atmosphere¹³ which assesses the effects of aircraft on climate and atmospheric ozone. The contribution of aviation to climate change can be indicated by the radiative forcing effect of aircraft¹⁴, which is estimated to be 3.5 per cent of the global total from all human activities. By comparison, the UK's total contribution to climate change is currently 2.5 per cent of the global total from human activities.

66. Aviation emissions are a small but growing proportion of global emissions. The IPCC report mid-range forecasts show that by 2050 aviation's contribution to man-made climate change will be between 3 and 7 per cent, depending on the scenario used.

67. Noise levels as measured at many of the largest UK airports have generally fallen over recent years. For example, at Heathrow Airport the number of people living within the daytime 57 Leq¹⁵ contour, which is taken to mark the onset of significant community annoyance¹⁶, has fallen from 1.5 million in 1979 to about 331,600 in 1999, in spite of growth in aircraft movements and average aircraft size. The main reason for the reduction has been the phasing out of noisier Chapter 2¹⁷ aircraft in Europe. This will be completed by 2002.

68. Despite these improvements, people often perceive air travel as growing noisier. This may reflect a decreasing tolerance of noise and environmental disturbance or changing attitudes to particular sources of noise, in this case commercial airports and airlines. The Government is therefore keen that improvements in the noise climate should continue where practicable, taking account of the economic effects of growth.

69. At the local level the other main environmental impact is the direct effect on local air pollution. Emissions from aircraft, airside vehicles and surface traffic to and from airports contribute to the level of pollutants in the local area, in particular NO₂¹⁸ and PM₁₀¹⁹, which may harm human health. The impact of aircraft emissions on air pollution in the vicinity of airports is, in most cases, less than that of emissions from road traffic to and from airports.

70. Major airport expansion also has environmental implications in terms of the land taken by the airport development itself, and development and urbanisation associated with improved surface access, additional housing and ancillary industry.

71. The integrated transport white paper²⁰ makes it clear that the Government intends to continue to tackle the environmental effects of civil aviation and airports. One element in this will be to ensure that aviation meets the external costs it imposes, including environmental costs. Evaluation of external costs is not an exact science. Our knowledge of the environmental costs of aviation is imperfect. In relation to climate change, ICAO is working to establish what these costs are and means of attributing them. In the UK, work is being carried out in relation to the external costs of

noise and local air pollution. Details of this work are contained in the sections on Effect on noise and Effect on local air pollution.

72. DETR has also produced a paper which briefly reviews some of the economic literature on the valuation of noise, air quality and climate change impacts, and considers the implications of aviation meeting its estimated external costs. This paper is available on request from DETR²¹.

Safety and security

73. Aviation safety must always be given priority. This needs constant vigilance by the Government, the CAA, the Health and Safety Commission and Executive and everyone in the industry. The worldwide aviation fatal accident rate is low compared with other forms of transport. In the UK, there has been no significant change in the absolute numbers of accidents over the last ten years, despite a 48 per cent increase in air traffic movements. Safety considerations are at the heart of aviation policy, and safety must continue to improve to meet the challenges presented by growth in aviation, new technologies and an ever more global industry.

74. The House of Commons Select Committee on Environment, Transport and Regional Affairs has recommended in various reports that a single, independent transport safety authority should be established. This would imply, for example, that the Safety Regulation Group of the CAA and the Air Accidents Investigation Branch of DETR would in due course be transferred to this new authority.

75. In response to the Select Committee's recommendations, in March 1999 the Government launched a review of the arrangements for UK transport safety. Following the tragic rail crash at Ladbroke Grove in October 1999, the Government announced a public inquiry under the chairmanship of Lord Cullen. This inquiry is looking at the wider rail safety regime, which in turn has implications for how transport safety in Great Britain is organised generally. We will await Lord Cullen's report before coming to any conclusions on this issue.

76. Security considerations also are imperative to protect the public from acts of unlawful interference. The threat of terrorism remains, and civil aviation continues to be an attractive target. The UK's national aviation security programme has greatly improved since the Lockerbie incident to meet this continuing threat, but protection can never be absolute and we cannot be complacent.

The Main Questions

77. Future development of the aviation industry requires a framework that integrates economic, social and environmental objectives. To develop this we must answer the following key questions:

- a) Should the Government choose policies that respond to the demands of consumers and allow current growth patterns to continue, while mitigating the negative effects as far as possible? Or are the costs of this approach too high and should we therefore choose policies to limit these negative effects?
- b) How should the Government ensure that aviation meets the external environmental costs for which it is responsible? Should greater emphasis be placed on regulation (at global, national or local level), economic instruments or voluntary agreements? If we should use a mix of approaches, what are the principles that should underlie the choice of approach for each issue?
- c) If aviation covers its environmental costs, should capacity then be provided to meet demand?

d) Should the UK try to maintain its position as a major hub for international connecting traffic, or focus on enabling travel to, from and within the UK? Is there a role for Government in promoting either objective (given that airlines will pursue the most commercially attractive option)?

e) Within the existing capacity constraints, how can the interests of UK consumers be best advanced?

The Government would welcome your views on these general questions and on the more specific issues discussed in the following chapters.

6 EEA consists of the EU member states and the European Free Trade Association member states (Iceland, Liechtenstein and Norway).

7 Cabotage is the right for a member state carrier to operate a route within the territory of another member state.

8 The figures relate to routes with over 5,000 passengers.

9 Aircraft with more than 20 seats and a maximum take-off weight in excess of 10 tonnes, but excluding helicopter operators.

10 *Air Traffic Forecasts for the United Kingdom 2000* DETR, June 2000.

11 *Transport Statistics Great Britain: 2000 Edition* (Table 7.1c) DETR, October 2000.

12 *UK Air Freight Study: Part 1* produced for DETR by MDS Transmodal, December 2000.

13 *Aviation and the Global Atmosphere* Intergovernmental Panel on Climate Change, 1999.

14 Radiative forcing is the change in the energy balance of the earth's atmosphere (expressed in watts per square metre). Figures quoted are the radiative forcing effect of greenhouse gases including water vapour and formation of contrails from aircraft.

15 Equivalent Continuous Noise Index.

16 *United Kingdom Aircraft Noise Index Study (ANIS)*: main report DR Report 8402, Brooker et al. for CAA on behalf of the Department of Transport, January 1985 and *The Use of Leq as an Aircraft Noise Index* DORA Report 9023. Following publication of the ANIS report, consultation and further consideration, the decision to use the 16 hour Leq for the UK aircraft noise index was announced in September 1990. 57Leq is also an accepted criterion in PPG24, comparable with 55Leq for other forms of transport (the 2dB difference takes account of ground reflection effects in field monitoring of aircraft noise).

17 ICAO divides jet and large turbo-prop aircraft into three categories (chapters) according to their noise level. Chapter 2 refers to subsonic jet aeroplanes for which either the application for certificate of airworthiness or other equivalent prescribed procedure was carried out by the certifying authority before 6 October 1977.

18 NO₂ : nitrogen dioxide.

19 PM₁₀ : particulate matter which passes through a size-selective inlet with a 50 per cent efficiency cut-off at 10µm aerodynamic diameter.

20 *A New Deal for Transport: Better for Everyone* the Government's White Paper on the Future of Transport Cm 3950, DETR, July 1998.

21 *Valuing the External Costs of Aviation* DETR, December 2000.

Chapter Three: Safety and security regulation

78. International civil aviation operates on the basis that all countries comply with minimum safety standards laid down by ICAO. Each country must recognise certificates and licences issued by other countries under requirements equal to or above ICAO standards. The CAA is responsible for safety oversight of UK airlines, aircraft and their crews. The UK sets safety standards for its own aviation industry which are sometimes higher than the international minima. We have co-operated with other European countries through the Joint Aviation Authorities (JAA) to harmonise these standards. Some of these standards have been incorporated into European Community law. Work is under way to form a new European aviation safety system with stronger powers than the JAA.

79. The Government has also designed policies to ensure that foreign aircraft visiting the UK conform to international safety standards. We only issue permits to foreign airlines to fly here when we are satisfied that they have all the certificates required by ICAO. We also ask the CAA to inspect foreign aircraft where there is evidence that they may not meet ICAO standards. These inspections are carried out as part of a co-ordinated European programme, known as the Safety Assessment of Foreign Aircraft (SAFA) programme. It exists to increase the number of inspections, share information and co-ordinate action. The CAA will ground any aircraft that it finds not to be airworthy. In isolated cases, where a country is found not to be enforcing ICAO standards, all aircraft from that country are prevented from operating in the UK.

80. The Government is also concerned to minimise third party risk around airports. We are establishing revised Public Safety Zones (PSZs) around all large airports. These broadly correspond to the areas in which the individual risk of death per year as a result of an aircraft accident is greater than 1 in 100,000. These calculations are based on estimates of the numbers and types of aircraft that will be using each airport in 15 years time. The Government is also producing guidance for local planning authorities in considering planning applications relating to land within these PSZs. The Government's policy is that there should be no significant increase in the number of people living, working or congregating within a zone.

81. Security is regulated through the UK national aviation security programme. This sets out the security measures which airports, airlines, security-approved air cargo agents and catering companies must implement in order to safeguard civil aviation in the UK, and UK airlines overseas, against such crimes as sabotage or hijacking.

82. Finally, the air transport industry is subject to national occupational health and safety legislation. It applies to activities both on airports and aircraft in and over Great Britain. The Health and Safety Executive tries to avoid overlap, and where health and safety is adequately protected by legislation enforced by another body, such as the CAA, it does not enforce health and safety at work law.

83. Safety and security issues are critical, but we do not deal with them in detail in this document. We do not intend to change the substance of current policy. We welcome any comments nevertheless.

Chapter Four: Consumer issues

84. In the consumer white paper²², the Government made a commitment to putting consumers at the heart of policy making. Government policy in relation to consumer issues is based on the following consumer principles:

- safety;
- fairness;
- access;
- choice;
- information;
- redress; and
- representation.

85. In aviation, the Government is keen to ensure that legislative and regulatory measures provide passengers with the level of consumer protection they are entitled to expect, without imposing unreasonable burdens on airlines or restricting the scope for legitimate competition.

86. Much of the protection given to air passengers is governed by European or international agreements, and the UK has limited scope to introduce its own measures. EC legislation provides protection in the event of failure of a tour operator and of denied boarding due to overbooking by a carrier. UK and EC legislation also establishes airline liability in the event of an accident. UK air passengers are protected against failure of travel organisers under the Air Transport Organisers Licence (ATOL) scheme. This mainly covers charter flights. To date this protection has not been extended to cover all passengers on scheduled flights. Scheduled carriers rarely fail and, if they do, passengers are often able to make alternative arrangements. Many passengers on scheduled flights are business travellers whose flights are generally paid for in arrears or who are insured because they paid for their flight with credit cards.

87. Following a wide-ranging consultation on air passenger rights, the European Commission has issued a communication²³ which sets out a series of proposals. It envisages legislation on rights for delayed passengers, conditions of carriage, and the provision of information. It also proposes voluntary commitments by airlines and airports in the following areas:

- allowing passengers to hold reservations without penalty;
- providing complete information on tariff availability;
- reducing queuing time at check-in and baggage collection;
- improving maintenance and signing at airports;
- keeping passengers fully informed of delays, cancellations, diversions and operating conditions;
- providing adequate care (for example, refreshments and medical facilities) for passengers delayed in airports or on board aircraft;
- undertaking to provide better treatment for passengers whose baggage is mislaid or damaged;
- doing more to meet the needs of people with disabilities or special needs; and
- establishing efficient complaints procedures.

88. Organisations representing the interests of airlines, airports and consumers at European level are currently working to develop an appropriate voluntary agreement. The UK Government supports these proposals, and we are actively involved both in discussions in the Council of Ministers and in facilitating the voluntary industry initiative.

89. It is important that consumer protection extends to all consumers, and in particular to passengers with disabilities. The Government is therefore planning to introduce a voluntary code of practice for the UK travel and air transport industry, designed to improve the accessibility of air travel to passengers with disabilities. It will cover all aspects of air travel from booking a ticket to arriving at the final destination, as well as the design of airports and aircraft. We will shortly publish a draft of the code of practice for consultation.

Airline conditions of carriage

90. Airline conditions of carriage are the contractual conditions under which a consumer buys an airline ticket. Consumer representatives argue that these conditions are unfairly biased in favour of the supplier. Individual airlines base their conditions of carriage closely on a recommended practice issued by the International Air Transport Association (IATA). Although IATA revised its recommended practice in 1998, these changes have yet to be adopted. Following a complaint from the Air Transport Users Council (AUC) to the Director-General of Fair Trading, brought under the Unfair Terms in Consumer Contracts Regulations, IATA has further amended its recommended practice but it remains to be seen whether further changes will be necessary.

Passenger information

91. Passengers require access to a wide range of information at each stage in the travel process. Although some information and advice is available from airlines, the AUC and others question whether further information is required and, if so, how this can be provided without the risk of information overload. For example, in selecting an airline, passengers may benefit from general, comparative information. The US Department of Transportation produces a consumer report providing comparative information on the record of all major US domestic airlines on punctuality, baggage handling, denied boarding and complaints. The European Commission, as part of its initiative on air passenger rights, proposes introducing similar arrangements in Europe. The Government believes that such a system would benefit passengers in the UK.

92. The Commission has also published a proposal to amend the regulation relating to airline liability²⁴. The amendment would require European airlines to provide more specific information to passengers about their entitlement to compensation in the event of accident, loss or delay. The Government welcomes this proposal, which should benefit UK passengers.

Fares

93. Under the European single market in aviation, air carriers are free to set fares according to their commercial judgement. There is strong evidence that this has led to a more competitive market, particularly where there are two or more carriers on a route. However, passengers still complain that on some routes fares remain high as competitive services may take time to develop.

94. The EC Fares Regulation²⁵ contains a safeguard against excessive fares, which applies to the basic fare, defined as the lowest fully flexible fare available on a particular service. It has been suggested that this provision should be applied in a way that would require airlines to offer not only a business class basic fare but also a reasonably priced fully-flexible economy fare.

95. The introduction of new services by low cost airlines has contributed significantly to the availability of low fares, although concern has been expressed at the limited availability of some of these headline low fares.

96. Outside the European single market, the fares regime depends on the relevant bilateral agreement. The CAA normally focuses on the lowest fully flexible fare on routes where it considers that there is not sufficient competition to safeguard passengers. The CAA refuses to increase by UK airlines in the lowest fully flexible fare on such routes when it considers that the fare is excessive in relation to the cost of providing the service. Cargo tariffs and charter fares are not regulated.

Code-sharing and franchise operations

97. The trend towards airline consolidation involves a spectrum of inter-airline arrangements ranging from code-sharing and franchising to alliances and mergers. There is a danger that these may reduce competition and passenger choice. But there may also be benefits of increased efficiency and improved service. The competition authorities will need to consider the effect on consumers in each case.

98. The Government thinks it is important that passengers know which airline is operating a flight when they book it. This is dealt with by both the EU code of conduct on computerised reservation systems (CRSs) and the ECAC recommendation on consumer information/protection needs in connection with code-shared air services. The EU code now places a legal obligation on travel agents who use CRSs to give consumers neutral and unbiased information.

99. In order that code-shared services should not have multiple entries to the exclusion of other services, the code of conduct also provides that a single code-shared service should not appear on more than two lines in any principal CRS display. The ECAC recommendation provides that the identity of the operating airline should be made clear to passengers at all stages of their journey, from purchasing a ticket right up to boarding the aircraft.

100. There are questions about whether these arrangements are sufficient to ensure that passengers always receive the information they need. In particular, whether they provide adequate protection for passengers booking via the internet, or, on the other hand, whether there is now too much regulation given the greater competition to which computer reservations system vendors are becoming subject, due to new technology.

Disruptive behaviour by airline passengers

101. There has been a perceived increase in the number of incidents of criminal, dangerous or anti-social behaviour by aircraft passengers in recent years, although serious incidents are still thankfully very rare. There is already a considerable body of legislation, both criminal and aviation-specific, to deal with offenders. The UK has contributed to the work of an ICAO study group looking at the international implications of this issue. In addition, a Government-led Working Group has established a unified reporting system covering all incidents of disruptive behaviour on board UK aircraft. This will help us to gauge the scale and nature of the problem.

102. Early data from the reporting system confirms that there is a certain amount of anti-social behaviour on board aircraft. Sometimes this escalates into serious incidents posing a potential threat to the safety of the aircraft and/or its occupants, though air rage is not as widespread a problem as media reports would sometimes suggest. Cabin crew are especially vulnerable to dangerous and disruptive behaviour.

103. The Government will continue to monitor the situation closely in liaison with interested parties. We will keep under review whether we need further legislative or preventative measures.

Passenger health

104. Interest in possible health risks associated with flying has been rising in recent years. Concerns have been raised recently about the environmental conditions within commercial aircraft cabins and their effects on the health of passengers and crew. The House of Lords Science and Technology Select Committee has conducted an inquiry into this matter. It has looked at such issues as the incidence of deep vein thrombosis in air passengers, and the quality of air in aircraft cabins. The Government welcomes the Committee's involvement, and the DETR and DOH have provided oral and written evidence. The Committee published its report in November 2000. The Government is carefully considering the Committee's recommendations. We have also commissioned a study to assemble a coherent picture of the existing evidence, taking account of the views of all interested parties.

A statutory consumer body for air transport

105. The AUC represents the views of air travellers. It is at present funded directly by the CAA, which in turn derives much of its revenue from charges levied on airlines. The Council has suggested that establishment as a statutory body would provide a more secure and independent funding base. This is how other consumer organisations are set up, particularly those for users of regulated utilities. As at present, its objective would be to ensure that the consumer's voice is heard across the full range of passenger rights issues. It could be responsible for taking up complaints against airlines and airports, and for publishing educational and advisory material on matters such as passenger health. Such a body could also provide consumer information about airlines performance in areas such as delays, denied boarding, baggage handling, safety and environmental performance. The establishment of such a statutory body would require primary legislation.

Questions on consumer issues

- a) In protecting consumer interests, where should we strike the balance between regulation and voluntary action by the industry?
- b) What changes, if any, should we make to airline conditions of carriage to bring them up to levels which meet present day consumer expectations?
- c) Should further comparative airline information be made available in the UK, including perhaps environmental information? If so, by whom?
- d) Does the current fare regulation protect consumers and airlines adequately? If not, how should we revise it?
- e) Are consumers' interests adequately protected by the application of competition law to code-sharing, franchising and other commercial arrangements between airlines? If not, what further steps should we take?
- f) Do we need further action to ensure consumers are adequately protected when buying airline tickets directly from airlines?
- g) Do we need further action to combat disruptive behaviour on board aircraft and, if so, what? For example, should passengers be prohibited from drinking alcohol other than that supplied by the carrier?
- h) How should any health risks associated with flying be tackled?

i) Should we set up a statutory consumer body for air transport, as in some other industries? If so, how should it be organised and financed, and what should be its duties?

22 *Modern Markets: Confident Consumers* DTI, July 1999.

23 *Protection of Air Passengers in the European Union* Communication from the European Commission to the European Parliament and the Council, 21 June 2000.

24 Council regulation 2027/97.

25 EC Fares Regulation: Council Regulation (EEC) No 2409/92.

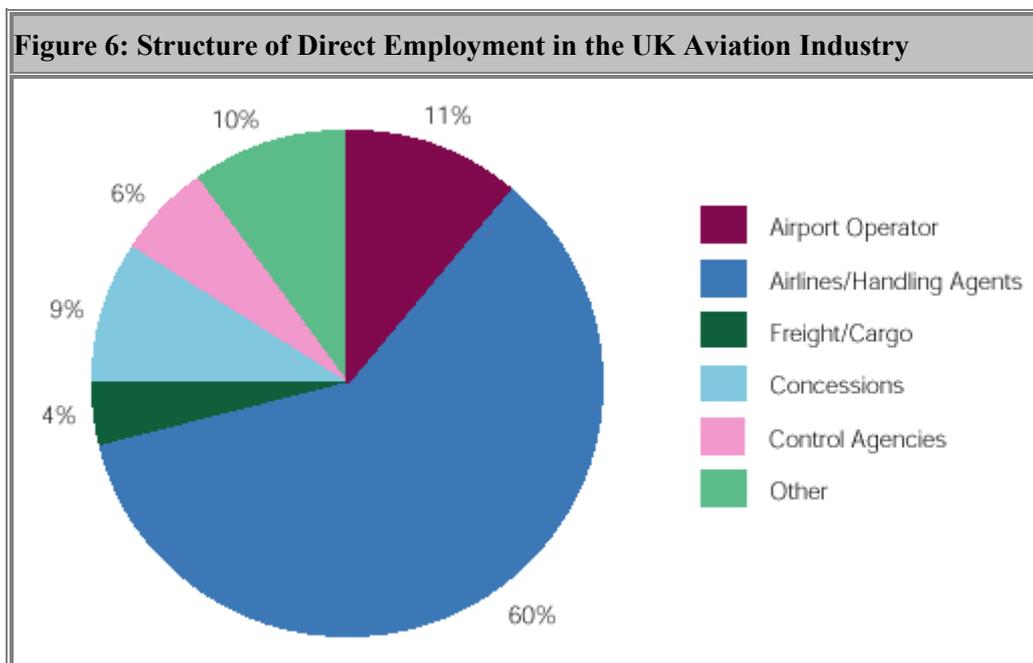
Chapter Five: Economic effects

106. The aviation industry brings many economic benefits to the UK economy at national, local and regional level.

National economic effects

107. A report by Oxford Economic Forecasting (OEF)²⁶ estimated that in 1998 the UK aviation industry accounted for £10.2 billion of GDP, 1.4 per cent of the total. This is similar in size to the car manufacturing industry, and around half the size of the food manufacturing industry.

108. The industry is also an important employer, supporting a large number of jobs, both directly in airport-related activities and indirectly in other activities. The OEF report estimated that the aviation industry directly supports 180,000 jobs in the UK²⁷. Figure 6 illustrates the breakdown of direct employment at UK airports between sectors²⁸:



109. These jobs provide direct social benefits to the areas surrounding airports. This is particularly so if they are accessible to people in areas of high unemployment. Good public transport links to such areas are therefore important to ensure access to these employment opportunities.

110. The OEF report projected that, on the basis of current trends in productivity, direct employment in aviation may increase by 30,000 jobs by 2015, to 210,000.

111. The aerospace industry in the UK also makes an important contribution to UK manufacturing industry. In 1998 it employed 154,000 people and contributed around £6.1 billion to the UK economy, equivalent to 0.8 per cent of GDP²⁹.

112. The aviation industry has acknowledged that there is a shortage of suitably qualified aircraft maintenance engineers within the UK. If this continues, outsourcing of maintenance operations outside the UK may become increasingly attractive. Prompted by the Environment, Transport and Regional Affairs Select Committee inquiry into aviation safety, a Government working group considered the potential effect of the shortage of maintenance engineers on safety and the Government's role in tackling the problem. The group concluded that given the CAAs effective

regulation of the industry, a continued shortage did not jeopardise safety but that it would imply a reduction in the capacity of the sector to service operations, which could undermine the successful growth of the UK aviation industry. The group also concluded that although the main responsibility lies with the industry, the Government could play a limited supporting role. It advocated the development of specific vocational qualifications, improving guidance on Government funding for training and the development of training centres of excellence, in tandem with promotion of aircraft maintenance engineering as a career³⁰.

Indirect economic effects

113. The economic effects of air transport extend beyond the direct contribution of the aviation and aerospace industries. Air transport links are vital to many businesses, whether for transporting goods or for business travel. Air cargo services carried 2.1 million tonnes of freight in 1999, just over a fifth of all UK trade in terms of value. The chapter on *Airfreight* contains further details on the air freight sector.

114. Good air transport links have the potential to contribute to national productivity and aviation is of particular importance to the City of London and to tourism, our two largest exporters of invisibles. Air transport links also support foreign direct investment into and out of the UK, often accompanied by improved technology and innovation.

115. The development of a successful airport may also encourage the formation of clusters of industries. The DTI's white paper, *Our Competitive Future: Building the Knowledge Driven Economy* (December 1998), set out the Government's commitment to encouraging business clusters. As the white paper makes clear, the experience of other countries demonstrates how clusters can contribute to competition and stimulate productivity and economic growth. They do, however, make demands on supporting infrastructure, including transport and housing.

Regional economic effects

116. Many regions across the UK are keen to benefit from the economic effects associated with good air transport links. Not only can they benefit from jobs, there may also be scope to attract more aviation-related businesses, such as airline catering and training activities. They can further benefit from the range of businesses that use aviation services for passenger travel, air cargo, or both. The development of a regional airport may also help to stimulate tourism in that area by encouraging travellers to fly there.

117. In particular, there may be scope for developing aircraft heavy maintenance operations at regional airports, benefiting the industry, improving local employment opportunities and contributing to wider regeneration. Large-scale heavy maintenance operations for the leading UK airlines are primarily focused in south east England. In view of capacity constraints at the main south east airports, the development of heavy maintenance operations at regional airports could help to free up land at airports in the south east. It could also support the Government's objective of maximising the contribution of regional airports to their local and regional economies. There may be scope for co-ordinated action between regional airports, established maintenance providers and others, possibly building upon some of the initiatives already underway.

118. Regional air services also play a vital role in the economic life of remote areas, providing important transport links for businesses and facilitating business travel and the transport of goods to and from such areas. Scotland has a well developed internal domestic air network which includes vital air services connecting the remoter Scottish island communities. These flights are a fast way of reaching the mainland and its major services, including financial, commercial and health

services, which cannot be provided locally. They are a lifeline that helps to counter the islands' remote location, fragile economic base and problems of depopulation. Air services are also particularly important to Northern Ireland because of its separation from the mainland by water.

119. Regional services such as these are sometimes difficult to operate profitably, although the feed traffic they provide can make them commercially attractive to airlines on the basis of their contribution to the overall profitability of a network. Where this incentive is insufficient, EU law allows a member state to impose a Public Service Obligation (PSO), including some remuneration of operating losses, to protect services which would not be provided on a purely commercial basis on routes vital to regional economic development. The UK has imposed PSOs on a number of lifeline air routes between the Scottish Highlands and Islands and on routes to and from Glasgow serving the islands. We consider this essential for the economic and social welfare of these remote communities.

120. Regional Development Agencies (RDAs) in England (outside London) have now drawn up economic strategies, many of which stress the contribution which regional airports and air services can make to regional competitiveness. The forthcoming regional consultation documents (see paragraph five) will examine the potential economic impacts of various development options in each area.

Questions on economic effects

- a) Is there any evidence of negative economic effects associated with the development and operation of airports?
- b) Do you agree that good air transport links to and from regional airports encourage regional economic growth? What might be done to promote them?
- c) Should we encourage maintenance operations to shift to regional airports?

26 *The Contribution of the Aviation Industry to the UK Economy* Oxford Economic Forecasting, November 1999.

27 Direct employment is that which is wholly dependent on airport-related activities, whether on-site at the airport or off-site. Includes employees of airline and handling agents, airport operators, concessions (retail and restaurants), freight/cargo business, control agencies (Customs and Excise, immigration) and other on-site ancillary organisations (eg. hotels).

28 Not including direct employment not allocated to a specific airport (which accounts for almost 5000 jobs).

29 *UK Aerospace Statistics: Data Supplement* DTI/SBAC, April 2000.

30 *Report of the Inter-Departmental Working Group on the Training of Aircraft Maintenance Engineers* DETR, July 2000.

Chapter Six: Environmental effects

121. Concerns about the environmental impacts of aviation and airports relate to both global impacts and local environmental impacts near airports. The main types of environmental impact are:

- effects of emissions from aircraft on climate change;
- local air quality effects of emissions from aircraft at airports and of the airport infrastructure which serves them;
- the effect of aircraft noise on people living near airports and under flight paths;
- noise, emissions and congestion arising from surface access to airports, particularly from road transport;
- land take and urbanisation resulting from airport development; and
- other environmental effects of airports: energy consumption, water quality, contaminated land and waste.

122. Environmental standards for aircraft and those relating to global emissions are generally established at international level. This should ensure that particular manufacturers or operators are not unfairly disadvantaged. International certification standards for aircraft emissions and noise have been agreed through ICAO and given regulatory force through incorporation in national legislation. Smoke and other emissions from jet engines have been regulated since 1983. The phase out of Chapter 2 aircraft³¹ was also agreed through ICAO and has made a major contribution to reducing noise at source.

123. Advances in engine and airframe technology have already significantly reduced the environmental impact per passenger/kilometre travelled. Modern aircraft are more fuel efficient and, weight for weight, have lower noise and emission levels. For example, in the long haul market, the Boeing B777 performs a similar function to the Boeing B747-100, the original jumbo jet, but it does so with much greater fuel efficiency, significantly fewer emissions and lower noise levels on take off and landing. Because of scaling effects, it may be harder to continue to incorporate new technology to deal with particular emissions, such as NO_x, into smaller aircraft.

124. The Government strongly supports further action to reduce emissions and aircraft noise at source through worldwide agreement, and we are working within ICAO to this end. The European Commission has recently produced a communication on air transport and the environment³² which sets out a complementary work plan. Following the next ICAO assembly in autumn 2001, the Commission and EU member states will review the international position to see what further action, if any, may be necessary to meet agreed environmental objectives. However, the dispute with the USA over the EU-wide ban on hush-kitted aircraft demonstrates some of the difficulties of taking action at this level.

Effect on climate change

125. Emissions from aircraft are a growing contributor to climate change. Aircraft emit greenhouse gases and particles directly into the atmosphere, altering the concentrations of carbon dioxide, methane and ozone. As air traffic increases, levels of ozone in the upper troposphere and lower stratosphere are expected to increase. The radiative forcing from these additional levels of ozone could accelerate climate change. Emissions are also likely to reduce methane which could result in a slight decrease in radiative forcing. But there will be regional effects which we do

not yet fully understand. Aircraft emissions also cause condensation trails (contrails) and may increase cloudiness, both of which contribute to climate change. Complex processes are involved and there is considerable uncertainty over the size and effect of such changes. They are currently the focus of research in both Europe and the US.

126. Road transport to and from airports, and airports themselves also contribute to climate change. The Government would like to see a higher proportion of journeys to airports made by public transport. We are keen that airports develop their potential to become integrated transport hubs. The section on *Integrated transport* describes measures that can be taken. Several airports are also working to reduce their own contribution to climate change. A number of airports have set themselves objectives to reduce CO₂ emissions and are implementing measures to increase the energy efficiency of airport operations.

127. Following agreement of the Kyoto Protocol in 1997³³, the UK has a target to reduce its greenhouse gas emissions by 12.5 per cent below 1990 levels by 2008-2012. The Government also has a domestic goal to reduce carbon dioxide emissions by 20 per cent by 2010. The UK Climate Change Programme, published in November 2000³⁴, sets out the Government's strategy for achieving these objectives. The programme makes it clear that Kyoto is only the beginning of a process and that we will need much deeper cuts in greenhouse gas emissions in the longer term.

128. The UK's Kyoto target includes emissions from domestic civil aviation. They are a small but growing proportion of the UK's emissions. CO₂ emissions from domestic aviation increased by 29 per cent between 1990 and 1998³⁵. However, they still account for less than 1 per cent of UK's total CO₂ emissions. If, as predicted, the UK's total greenhouse gas emissions fall, civil aviation's contribution is likely to grow as a percentage of actual emissions.

129. The IPCC report on aviation and the global atmosphere estimated that the contribution of aviation to climate change was 3.5 per cent of the global total from all human activities. By comparison, the UK's total contribution to climate change is 2.5 per cent of the global total from human activities.

130. Emissions from international aviation and shipping are not currently included within the targets agreed under the Kyoto Protocol. Instead, parties to the Framework Convention on Climate Change are required to limit or reduce emissions, working through ICAO. ICAO is developing policy options to meet its obligations through its Committee on Aviation Environmental Protection (CAEP). These include:

- examining the effect of technological improvements (such as improvements in fuel efficiency which will help to lower costs as well as reduce emissions);
- operational efficiencies (such as better air traffic management and improved ground control at airports); and
- possible use of market based options (such as aviation fuel tax, emissions charges, use of emissions trading or voluntary agreements).

131. The Government is particularly keen to develop the use of economic instruments to reduce the environmental effects of emissions from aviation, in line with the polluter pays principle. It has been suggested that air passenger duty (APD) might be a potential lever to advance environmental objectives. However, the Government's view is that APD is currently not well structured for this purpose. There is no significant correlation between the duty paid and the environmental effect of particular flights.

132. There are a number of potentially more suitable market-based instruments. ICAO is looking at the following:

- *taxation of aviation kerosene*. The Government believes that the tax exemption on aviation fuel is an anomaly. Introducing such a tax would help to place environmental costs on the polluter and give an incentive for further improvements in fuel efficiency, including technological advances. However, unilateral introduction of such a tax at national or EU level could cause significant competitive disadvantage for European carriers, as the European Commission communication on the taxation of aircraft fuel showed³⁶. To avoid distorting international competition, we need worldwide agreement on fair and proportionate levies. However, exemption from taxation is included in over 2,000 bilateral air service agreements, so it cannot be changed quickly or unilaterally.
- *introduction of tradeable emissions permits*. This involves setting an overall cap or target on emissions and allowing airlines to buy or sell emissions permits. There could be three main variants of the system. In the first, trading would be exclusively within the aviation industry. In the second, trading with other sectors would be possible. The third would be a hybrid system which forced the aviation industry to make some internal savings but allowed it to make up the balance from trading with other sectors or from carbon sequestration (ie by taking CO₂ out of the atmosphere, for example, by natural means such as forestation).
- *voluntary agreements* could be set up between the regulatory authorities and the industry to reduce specific or collective emissions, leaving it to the industry to determine how it met its commitments. The main difficulty is defining the baseline business-as-usual level of emissions against which savings can be agreed and monitored.

133. One issue to consider, which relates to the use of economic instruments, is the extent to which the imposition of charges which reflect the full external costs of aviation would influence airlines behaviour. For example, a fuel tax, unless very large, would have limited impact in reducing emissions from demand effects alone. A sensitivity test included in the DETRs *Air Traffic Forecasts 2000* shows that a doubling in the price of aviation fuel can be expected to reduce demand by only 10 per cent. The size of the reduction in emissions would depend on operators buying more fuel-efficient aircraft and stimulation of fuel-saving technology. Airlines would balance the cost of new aircraft against savings from using less fuel. In comparison, a system of tradeable permits would enable the level of emissions to be controlled directly and would not rely on demand alone.

Effect on local air pollution

134. The main sources of local air pollution around airports are:

- aircraft operations close to and on the ground;
- road vehicles at the airport; and
- traffic to and from airports.

135. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland published in January 2000³⁷, sets health-based air quality objectives for eight air pollutants to be achieved between 2003 and 2008. The objectives set for NO₂ and PM₁₀, to which airport activities and traffic to and from airports make a significant contribution, are likely to be the most challenging for airports. These objectives are derived from mandatory EU limit values.

136. As part of their duties under the Environment Act 1995, local authorities are required to review and assess air quality to determine whether they will meet air quality objectives. If it seems that they won't, local authorities must designate air quality management areas and draw up action plans setting out what they will do in pursuit of air quality objectives. Where local authorities are unlikely

to achieve air quality objectives, in part because of emissions from airports, airport authorities should work closely with local authorities.

137. The effect of emissions from aircraft on air pollution in the vicinity of airports is, in most cases, less than that of emissions from road traffic to and from airports. Increased usage of public transport by passengers and employees to reach airports is an important factor in reducing air pollution around airports. However, if levels of air traffic grow as forecast and road traffic continues to become progressively cleaner, the relative contribution of emissions from aircraft to total emissions could be expected to increase. Improving emissions standards for aircraft is therefore important to reduce air pollution at airports.

138. Many technical developments are aimed at getting better fuel efficiency from existing aircraft or engine designs. Although they reduce overall fuel usage, modern engines produce relatively more NO_x than earlier designs due to the higher combustion temperature. The ICAO standard on NO_x was tightened in 1998. Reducing NO_x emissions is a continuing focus of research.

139. Further reductions in local air pollution can be achieved if airports provide ground-based power to stands and use pre-conditioned air. These will reduce the need for aircraft to use auxiliary and mobile ground power units. Airports could also use low-emission vehicles.

140. We could also consider using economic instruments to internalise the costs of local air pollution. The DETR leads an interdepartmental group which is carrying out a formal economic analysis to establish comparable estimates of the costs and benefits of measures to improve air quality and to achieve the objectives in the national air quality strategy. The group published an interim report in January 1999 that gives full details of their methodology and a partial assessment of the costs and benefits of policy measures³⁸. The report identified a significant amount of further research needed before it can present a more complete assessment. A substantial part of this research is underway. It includes a detailed study into the valuation of health benefits associated with reductions in air pollution. The results of this and other studies are expected to be available during 2001 and will feed into policy development in this area.

Effect on noise

141. Noise from aircraft, particularly at night, arouses strong feelings among those living near airports and under flight paths. Regulation to reduce the effect of noise includes both internationally agreed limits on noise from aircraft and local regulation to control impacts around airports.

142. Aircraft noise should be monitored and the results assessed against its potential effects on the surrounding population. The Government adopted the Leq (equivalent continuous noise) index as a metric for daytime noise following the Aircraft Noise Index Study (ANIS) published in 1985³⁹, which showed a good statistical correlation with annoyance. Since then the frequency of traffic has increased at some airports and the lapse of time since the ANIS study means that it would be desirable to carry out a further validation study in due course. However, no compelling evidence has emerged since then, either in the UK or elsewhere, to cast serious doubt over the continuing suitability of the index, bearing in mind that no single metric can capture all the characteristics of noise, nor of the annoyance it causes.

143. Since the Wilson Report on noise in the 1960s⁴⁰, successive UK Governments have recognised that, in the vicinity of airports, the balance of social and environmental advantage lies in concentrating aircraft along the least possible number of routes. Those routes should, as far as practicable, overfly as few people as possible. This is consistent with airspace management

considerations, as the overriding need to ensure the safe separation of aircraft concentrates traffic along a relatively small number of routes.

144. The Government is keen to ensure that noise improvement measures continue to be pursued at airports at all times of the day. We are also keen that the control of noise at airports should be agreed locally as far as possible.

145. At the UK's designated airports⁴¹ there are appointed noise preferential routes, departure noise limits and arrivals procedures, designed to limit noise and to minimise, as far as practicable, overflight of heavily populated areas. There are also controls on night movements. Other UK airports set their own, often similar, controls. All airports are able to set differential charges relating to the amount of noise aircraft make to encourage airlines to use quieter aircraft. These charges should comply with the general principle of cost-relatedness after taking all operations into account. At the designated airports, and others in the UK, surcharges are also applied to airlines that exceed specified departure noise limits. Some airports have also agreed noise caps as a condition of planning permission for extensions of facilities. Similar caps could be extended to other airports.

146. In addition to local agreements to reduce noise, we are pursuing a number of complementary regulatory options. These include:

- continuing attempts to negotiate a new noise certification standard in ICAO. This would require the industry to meet a standard which is technically feasible and economically reasonable. It could encourage research into quieter engine and airframe technology, leading to longer-term benefits. Greater immediate benefit could be achieved from the early phase-out of the noisiest Chapter 3 aircraft, and the UK is pressing other states in ICAO to agree a programme for this.
- pursuing changes in ICAO recommendations for operating procedures, so long as they comply with safety considerations, in order to reduce the amount of noise from aircraft landing or departing. CAEP has established a working group to consider environmental issues related to aircraft operations near airports. One of the group's objectives is to define operational procedures and strategies to reduce aircraft noise exposure around airports.
- changing the statutory framework aimed at controlling noise at all types of airport, including general aviation aerodromes. We issued a consultation paper on this issue in July 2000⁴² and responses are now being considered. It proposed strengthening the ability of airports to enforce noise abatement measures on aircraft operators and adding to the powers of local authorities and the Secretary of State to make noise rules and agreements binding. It also proposed repealing Section 5 of the Civil Aviation Act 1982, which currently places a duty on the CAA to take account of environmental factors in licensing any specified aerodrome. The Government believes the new powers would provide a suitable replacement for this duty.
- continuing work by the EU and World Health Organisation (WHO) to establish noise standards based on the wider potential effects of aircraft noise on health. In July 2000, the European Commission published a proposal for a European directive on the assessment and management of environmental noise (which included noise from civil aviation). The Government is involved in negotiations in the European Council. The WHO Charter on Transport, Environment and Health also includes a commitment to make progress towards a broad range of health targets. The Government will take account of this commitment in so far as these health targets are relevant to air transport policy.

147. We could also consider greater use of economic instruments. This could include the introduction of mandatory noise-related levies at airports as an incentive to use quieter aircraft. These could take the form of a tax paid to the Government or a charge levied by the airport to be applied to related environmental purposes.

148. A specific levy could also be imposed on night movements. This would recognise that night flights cause more perceived disturbance than flights during the daytime and, in line with the polluter pays principle, those operating at night should pay higher costs. Operators could decide whether to recover this cost through fares generally or to levy the charge directly on passengers.

149. We may need further research into the monetary valuation of the effects of noise to inform charging strategies. One question is whether charges should be based on actual noise levels or on their effect on people. Robert Tinch prepared a report for the Department of Transport in April 1995⁴³, which was based on a survey of other research in this area. It suggested that a noise-related levy, set appropriately, would have a limited effect on airline costs. We will be carrying out further work in this area in producing the whitepaper, which will inform thinking on possible charging strategies.

150. Further research into the effects of noise is also continuing. Following a study by the Aircraft Noise Monitoring Advisory Committee (ANMAC) into noise from arriving aircraft, aviation industry representatives from Heathrow, Gatwick and Stansted are developing a code of good practice for air traffic controllers, airlines and airports. This will focus on improving adherence to continuous descent approach procedures that reduce noise levels on the ground.

151. The Government is also researching the health impacts of noise. In 1998, DETR and DOH established a £1 million research programme over three years to look into the non-auditory effects of noise on health and well-being. This is examining the effects of noise on cardiovascular health, community mental health, insomnia and children's learning and behaviour. The results should be available in 2001 and any relevant findings will inform Government policy on noise.

Night Noise

152. In considering airport development, the effect of aircraft noise at night is likely to be a major concern. Night flights are often necessary to provide competitive levels of service. Long haul scheduled flights arrive at Heathrow in the early morning period. There are 24-hour charter operations at Gatwick, and at Stansted flights carry overnight mail and other time-sensitive cargo. Charter, mail and cargo services also operate during the night at many other UK airports. Demand is increasing, particularly for freight services (we look at the issues facing the freight industry more fully in the chapter on Air freight). In addition, with technological advances in aircraft design and navigation, many aircraft are able to fly more direct routes non-stop, cutting journey times and emissions, but arriving earlier in the night.

153. The characteristics of aircraft noise and its effects at night mean that Leq tends to be less reliable as a proxy for sleep disturbance and annoyance. We need other indicators, such as the relationship between individual noise events and sleep disturbance. We could use footprints of the noisiest aircraft types commonly operating at night, along with the patterns of arrivals and departures. In other words, we would draw on the research into the relationship between sleep disturbance and aircraft noise to estimate the likely numbers who may be disturbed by night movements.

154. The underlying principle of the current night restrictions at the designated airports is to preserve a balance between the need to protect local communities from excessive aircraft noise at night and the operation of services where they provide economic benefits. Successive governments have felt that neither a ban on night flights nor unrestricted night flying would achieve this. Similarly, no other leading European airports have a night flying ban but all have some restrictions.

155. After extensive consultation in 1998/99, the Government announced the restrictions on night flying at the designated airports for 1999-2004⁴⁴. The aim of the system is to encourage the use of

quieter aircraft at night. The main element is seasonal noise quotas or budgets, set separately for each airport and including both Chapter 2 and 3 aircraft. Most other leading European airports have less stringent restrictions that do not address Chapter 3 aircraft.

156. Other UK airports, such as Luton, Manchester and Birmingham, have adopted voluntary quota count restrictions based on the London system. Other EU countries have also recently examined this issue. The London system has been adapted for use at Brussels airport and is being adopted in its entirety at Madrid.

157. The Government has funded two new research studies on the adverse effects of night-time noise. They include a trial study on objective measurement of sleep disturbance in the home under controlled conditions, and a public attitude survey of people's perceptions of the effects of aircraft noise at night. We expect to publish both studies very soon.

Effect on land take

158. Airport development can negatively affect the natural and built environment, including landscape, biodiversity, natural habitats and heritage sites. This may be particularly true if land is covered by a designation recognising its environmental sensitivity, for example, a Site of Special Scientific Interest (SSSI) or Area of Outstanding Natural Beauty (AONB). Many wildlife sites are strictly protected under international and European legislation. Any major new airport development will therefore need a full environmental assessment and airports should consider the potential to mitigate for habitat loss.

159. Airport development can also considerably affect urbanisation, both directly and indirectly through related development such as housing. Airports should try to use previously developed land and to minimise the amount of land they need. They could do this by encouraging airlines to share user facilities and using new technologies to allow check-in away from the airport.

160. The regional consultation documents will examine urbanisation impacts at individual airports.

Other environmental effects

161. Other environmental effects are regulated in the same way as for other types of business. They include waste disposal (including hazardous waste), and discharge of water into drainage systems and watercourses. Airports should meet regulations and aim to implement best practice. For example, they should look at options to re-use or re-cycle waste prior to disposal both airside and within terminals.

162. The Government is keen that all businesses should minimise their environmental impact, including energy and other resource consumption, and their effect on ecology and wildlife. To that end the Government supports the use of environmental management systems such as ISO 14001 (established by the International Organisation for Standardisation) and the EU's Eco-Management and Audit Scheme (EMAS) at airports. Public reporting on environmental issues and independent audit are also vital to increasing public confidence in the industry's environmental performance.

163. The Airport Operators Association will shortly be producing a manual on best environmental practice at airports. This should provide useful information for all airports about the main environmental issues and should help to encourage sharing of examples of good practice between airports.

Compensation and mitigation measures for environmental impact

164. Despite efforts to reduce the environmental impacts of aviation, a certain level will always remain. There is, therefore, a role for both compensation and mitigation measures. Residential owner-occupiers, farmers and small businesses can claim compensation for depreciation in the value of their property caused by physical factors, such as noise, vibration, smell and fumes from development of existing airports or new airports once they have been in use for a year. There may also be potential for airports to mitigate for the ecological or habitat loss arising from major airport development.

165. Many major airports have, or have had, noise insulation schemes. There have been various statutory schemes at Heathrow and Gatwick, both of which are designated airports for the purposes of Section 79 of the Civil Aviation Act 1972. Other airports have introduced schemes on a voluntary basis or as a planning condition. There is substantial advice on this subject in planning policy guidance in England on Planning and Noise (PPG24). Similar criteria apply to roads and railways.

166. Compensation measures for non-environmental impacts are discussed further in this section on *Planning for airport development*.

Role of future technology in reducing environmental impact

167. New technologies can help to reduce the environmental impact of aviation. It is generally accepted that the threat of regulation is the major driver behind development of such technologies, except those technologies that offer improvements in fuel efficiency and hence reduced costs.

168. Future technologies offering environmental improvements include:

- better aerodynamics;
- new, more efficient engine designs;
- new combustor technologies for achieving substantial reductions in emissions; and
- engine and airframe design developments to reduce noise at source.

169. Improvements may also result from advances in on-board systems and equipment contributing to improved air traffic management; and operational procedures that improve fuel efficiency and reduce noise. However, even taken together, we expect these developments to reduce but not offset the environmental effects of forecast aviation growth.

170. The IPCC report⁴⁵ forecasts, at a global level, fuel efficiency improvements of up to 2 percent a year from engine, airframe and operational development. However, global air traffic is forecast to grow at 5 per cent a year. Therefore, the effect on climate change will continue to grow. In terms of impact on local air pollution, NO_x reduction technology is being developed which has the potential to reduce emissions in the landing and take off cycle. However, we need advancements in low NO_x technology to offset the continuing development and use of higher pressure ratio engines which improve fuel efficiency but contribute to higher NO_x per unit of burnt fuel.

171. Incremental improvements in engine and airframe technology will also help to reduce noise. Rolls Royce has set a target of reducing aircraft engine noise by 10dB, cumulative, from 1998 levels by 2010⁴⁶. This would correspond to a near-halving of the area of contours, assuming the reduction applied to all aircraft at any specific airport. However, given the slow rate of fleet renewal, even

such improvements are unlikely to provide much headroom against the forecast growth in demand for air travel.

172. Therefore, despite the improvements offered by incremental changes, to enable real improvements in environmental impact, a step change in technology seems to be required.

Questions on environmental effects

- a) To what extent should the Government rely on regulation to influence noise, emissions and other environmental effects of aviation, and to what extent are economic instruments or voluntary agreements more appropriate?
- b) To what extent should there be a national framework for the assessment and mitigation of noise and local environmental effects at airports and to what extent should the details be decided locally? For example, should limits for aircraft noise and/or emissions be set around airports (where they do not already exist)?
- c) If economic instruments were used to reflect the polluter pays principle, should such instruments be varied in relation to the sensitivity of location or operating time (for example for night flights)?
- d) Is a balance between mitigation and compensation the best approach for local impacts? Are there further steps the Government could take to mitigate the environmental effects of aviation?
- e) In the long term, where should the UK concentrate its efforts in international negotiations on environmental impacts?
- f) What more could be done to encourage further development of future technologies in this field?

31 ICAO divides jet and large turbo-prop aircraft into three categories (chapters) according to their noise level. Chapter 2 refers to subsonic jet aeroplanes for which either the application for certificate of airworthiness or other equivalent prescribed procedure was carried out by the certifying authority before 6 October 1977.

32 *Air Transport and the Environment: Towards meeting the challenges of sustainable development* COM(1999) final.

33 Kyoto Protocol, agreed in December 1997 by the United Nations Framework Convention on Climate Change.

34 *Climate Change. The UK Programme*. DETR, November 2000.

35 *UK Greenhouse Gas Inventory, 1990 to 1997* DETR, November 1999.

36 *Communication from the European Commission on the Taxation of Aircraft Fuel* COM(2000)110 final D.

37 *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland Working Together for Clean Air* DETR, January 2000.

38 *An Economic Analysis of the National Air Quality Strategy Objectives An Interim Report of the Interdepartmental Group on Costs and Benefits* DETR, January 1999.

39 See previous footnote concerning the ANIS study (no. 16).

40 *Committee on the Problem of Noise: Final Report* Cmnd 2056, July 1963.

41 Designated airports are Heathrow, Gatwick and Stansted.

42 *Control of noise from civil aircraft: consultation paper* DETR, July 2000.

43 *The Valuation of Environmental Externalities: Full Report* prepared for the Department of Transport by Robert Tinch, April 1995.

44 *Night Restrictions at Heathrow, Gatwick and Stansted: A Guide to the Winter 1999/2000 Summer 2004 Regime* DETR, November 1999.

45 *Aviation and the Global Atmosphere* Intergovernmental Panel on Climate Change, 1999.

46 *Study into the Potential Impact of Changes in Technology on the Development of Air Transport in the UK* prepared for the DETR by Arthur D Little Ltd, December 2000.

Chapter Seven: Airports

Airport capacity

173. In considering the future of the aviation industry we need to think about how to make the best use of our airport capacity, as well as if, when, where and how to provide new capacity. This section concentrates on managing capacity. Consultation during this year has considered what methodology should be used when assessing options for additional capacity. We published the results of that consultation in November 2000⁴⁷. Options and packages for additional capacity will be the subject of the separate consultation documents on each region of the UK next year.

174. There are several possible ways of managing airport capacity:

- through allocation of runway slots;
- redistributing air traffic;
- encouraging certain types of traffic;
- substitution between different forms of transport; and
- making greater use of improved technologies.

Slot Allocation

175. At a general level, the provision and management of available airport slots largely dictates an airport's capacity.

176. The slot allocation regime at congested airports has been governed by a European regulation⁴⁸ since 1993. The regulation enshrines the IATA principle of the right of historic precedence. Under this principle, an airline that holds a slot in one operating season has first claim on it in the next equivalent season, and indefinitely thereafter. This is known as grandfather rights. At congested airports, such as Heathrow, the overwhelming majority of slots are claimed on this basis each season.

177. The declared objectives of the European Regulation are to:

- ensure that where demand for slots exceeds supply, allocation is undertaken in a neutral, transparent and non-discriminatory way; and
- promote liberalisation, and facilitate competition and entry into the market, particularly on intra-EEA routes.

178. Analysis carried out by the CAA⁴⁹ suggests that the second objective is not being met at the most congested European airports. A primary factor in this is the lack of availability of slots, particularly at peak periods.

179. Under the current system there is little if any incentive for airlines to surrender slots. The regulation does not permit them to sell slots, although they may exchange them with other airlines. However, it is generally recognised that a grey market already exists, where exchanges of slots between airlines are accompanied by financial or other considerations. In 1999, the High Court decided that where two carriers exchanged slots, the co-ordinator was not required to consider whether money may have changed hands as part of the deal⁵⁰.

180. In the absence of major new infrastructure, the only slots available tend to be the few created by small-scale incremental increases in capacity. This shortage of slots may affect the viability of new services. A carrier wishing to establish a new short haul service is unlikely to be able to obtain enough slots to operate a commercially viable service, and long haul services may have to be offered with one rotation a day or fewer. This may not be in the best interests of the travelling public.

181. Incumbent airlines may be able to start up new services, or increase frequencies on existing ones, by shuffling their existing portfolio of slots, and by swapping with other incumbents. This has accelerated the trend to reassign slots at major airports to the most profitable routes. These are mostly the intercontinental routes and others with high volumes of business passengers. This may mean that on thin routes (including many domestic services), services primarily aimed at leisure travellers and all-cargo services might be reduced or squeezed out of the most congested airports. For example, during the 1990s Birmingham, Guernsey, Inverness and Liverpool lost their services to Heathrow and therefore lost access to its worldwide network of routes. Frequencies have been reduced on other domestic routes out of Heathrow, such as Teesside and Leeds Bradford, and there has been a considerable reduction in dedicated freighter movements and business aviation activity at Heathrow.

182. If demand for air traffic cannot be met at its preferred airport, there are several responses. The demand may be suppressed, which may bring negative economic effects. It may be met by another form of transport, but only relatively short air trips are readily substitutable. Or it may relocate. If this is to another UK airport, then the economic benefits are not lost to the UK, and it may be locally beneficial. But some types of traffic will choose to move to continental airports, with a potential loss to UK airlines and to the UK economy in general. Capacity constraints may also encourage the use of larger planes on current routes. The relative environmental effects, in terms of noise and emissions in particular, would depend on age, engine and design of the aircraft.

183. The Government has said that it may be time to consider the benefits that the right of historic precedence offers. Clearly it is important that any system of slot allocation provides airlines with sufficient confidence in future allocation arrangements to invest in and develop routes. Grandfather rights give such confidence to incumbents, but may also have anti-competitive effects. We think that it is appropriate to review the steps necessary to produce fair competition and promote the interests of the consumers.

184. In order to make the most efficient use of capacity, a market in slots might be created. One element of this could be the auctioning of pool slots. In the absence of time limits on grandfather rights, this would essentially mean newly created slots. But if there was a recycling process, the pool would be larger and would hold more peak-period slots.

185. Some have suggested that at least the majority of the revenue from auctioning slots should accrue to the Government. This view is based on the fact that the value of a slot is primarily generated by its scarcity value, rather than by anything the airline holding it has done. The Government has yet to take a view on how proceeds from such an auction might be used.

186. Additional efficiency could come from legitimising the buying and selling of slots. It is recognised that the additional lubrication to the system provided by the grey market in slots, is on the whole desirable. But because closed deals are struck between two players, they do not deliver the full competitive benefits of an open market.

187. An open and transparent market in slots would encourage airlines to consider whether they genuinely needed to occupy slots at a congested airport or whether they could relocate their service.

It may also provide an opportunity for new entrants to get into the most congested hub airports. It is argued that this may favour airlines with the greatest ability to pay. However, it seems likely that each airline's bid would be conditioned by the revenue it anticipates from that service. The result could be greater competition between major airlines on certain routes, but with some routes being displaced to less congested airports.

188. It is argued that a market in slots could accentuate the trend towards squeezing thin domestic routes out of the principal hub airports. However, at present a carrier wishing to extend its route network must generally find the necessary slots from within its existing slot portfolio. Domestic routes may therefore be at greater risk under existing conditions than they would be under a regime that permitted slot auctioning and trading.

189. The Government believes that the establishment of a transparent market in slots would be a means of improving the use of a scarce resource. We intend to press for this principle to be reflected in the European Regulation, so as to allow secondary trading of slots between air carriers and the auctioning of new and recycled slots. But we recognise that unfettered trading might have undesirable consequences and we might need to incorporate safeguards into the system. These could include:

- a requirement for traded slots to be returned to the pool after a certain number of years;
- powers for slots to be protected for services to and from peripheral or development regions, and to prevent them from being traded away from that route;
- provision for parties other than airlines (such as local authorities) to secure slots and franchise their operation; and
- measures to supplement general competition law to prevent carriers exploiting the market in slots for anti-competitive purposes or to abuse a dominant position.

190. Questions arise about where and how environmental considerations might be fed into the slot allocation process. It is possible that the slot allocation regime could be adjusted to reflect them. The European Commission raised this as an issue in its proposal to revise the slot allocation regime, issued in July 2000. It suggested that airlines might be prevented from substituting less environmentally friendly aircraft than they currently use in any given slot. But this might seriously affect the ability of carriers to respond to changes in market conditions.

Redistribution of Air Traffic

191. In examining the use of any given level of future airport or airspace capacity, we could consider measures to redistribute air traffic.

192. The main regulatory mechanism for redistributing traffic would be the *imposition of traffic distribution rules* (TDRs). TDRs would have to be used in line with the rules on non-discrimination and other requirements of the EC Market Access Regulation⁵¹. TDRs apply to the London airports and in Scotland. The current London TDRs, which date from 1991, restrict the use of all-freight services and business aviation at Heathrow and Gatwick during peak hours. However, nothing in the legislation prevents a positive rule that might state that a particular type of air traffic could only use one particular airport. More extensive use of TDRs would be a significant intervention in the market. There would need to be clear net benefits to the efficient operation of the aviation market in the UK as a whole, to offset any disadvantages to operators and customers.

193. An alternative mechanism for redistribution might be the *introduction of higher charges at congested airports*. The scope for action is limited. Both ICAO guidelines and the UK-US bilateral

agreement Bermuda II emphasise that the charges that airports levy on airlines should be limited, in broad terms, to the recovery of the costs of providing facilities and services to airport users plus a reasonable return.

194. At present most airports operate a single till, whereby profit from retail and other on-site activities by airport operators is taken into account when calculating how much to recover through airport charges. This is not a statutory requirement, but flows from ICAO guidelines. The Monopolies and Mergers Commission (now the Competition Commission), in its 1996 review of the BAA London airports, concluded that charges at these airports are, as a result, significantly lower than the cost of providing facilities and services to airport users.

195. In its preparation for the next quinquennial reviews of the BAA London airports and Manchester Airport, the CAA intends to initiate a fundamental debate on the advantages and disadvantages of adhering to the single till principle. It is concerned that the single till may distort investment priorities and incentives, and have the perverse effect of reducing user charges at congested airports where the natural market response would be to increase the price of use.

196. The UK and a number of other countries argued strongly at a recent ICAO conference that there should be flexibility to move away from the single till under certain circumstances. The ICAO secretariat will carry out further work on the subject following the Council's endorsement of the report of this conference.

197. Charges might have to be very much higher than the current, cross-subsidised levels to cause a significant redistribution of traffic. DETRs *Air Traffic Forecasts 2000* include a sensitivity test which indicates that a 50 per cent increase in all airport charges would result in a 7.5 per cent reduction in total demand. However, this does not indicate the effects of raising charges selectively at particular airports, or the impact on particular types of traffic.

198. A more targeted option might be for airport operators to *implement differential scales within airport charges*. This could encourage particular types of traffic to use off-peak hours where possible. The price mechanism could also be used to persuade traffic to opt for one airport rather than another. To some extent, this will happen through the free play of the market, as airports compete for traffic. But it can be argued that a more proactive approach from Government might be needed. The application of levies at congested airports could also help to ensure that the aviation industry covers the additional external costs of congestion. There is, however, an internationally accepted provision in the Chicago Convention that aviation should not be taxed simply to enter, exit or travel through national airspace.

Encourage Certain Types of Traffic

199. Alternatively the Government could choose to encourage certain types of traffic over others. One of the policy objectives in the 1985 airports white paper⁵² was to support the leading position of Heathrow and Gatwick among the world's major international airports and interlining centres. Some have suggested that the reference to interlining or connecting traffic is no longer appropriate given the shortage of capacity, and that accommodating point to point traffic should be the priority.

200. A recent study by the CAA⁵³ concluded that the economic case for favouring either interlining or point to point traffic at congested airports was not clear. Connecting traffic brings clear benefits to UK airlines by enabling them to offer more services to more destinations, to spread risk and to compete more effectively with foreign airlines. The greater output of UK airlines may generate benefits for the UK economy. For UK passengers, the effects are mixed. The benefits of more services may be offset by the inability to use their first choice airport. In practice, however, the

Government has little scope for encouraging or discouraging such traffic, since much depends on carriers commercial policies.

Substitution Between Different Forms of Transport

201. Transfer of a significant number of short haul air passengers to other forms of transport could help to free slots at congested airports. However, we need to consider the economic and environmental effects of substitution between different forms of transport, as well as passengers willingness to substitute. We discuss this issue further in the section on Integrated transport.

202. If the Government decided to encourage transfer from air to an alternative form of transport for short journeys, one possibility would be to introduce a TDR prohibiting use of the main hub airports by services of less than a certain journey time. The European Commission has suggested that routes where adequate surface links exist should receive lower priority in the slot allocation process. This could have significant implications for connecting traffic and for those parts of the country which at present rely heavily on domestic air services for such connections.

Capacity at Regional Airports

203. DETRs regional consultation documents, which will be published next year, will be based on a series of regional airport studies. These provide information on the forecast demand for additional airport capacity in specific regions. They appraise the economic, environmental and social impacts of a range of levels of capacity and varying distributions of capacity between airports, to consider the best use of capacity in each region.

204. The study of airports in the south east and east of England will consider whether the Government should encourage growth at regional airports in order to cater for some of the demand currently met by south east airports, bearing in mind that some 80 per cent of all passengers who end their journey at Gatwick and Heathrow airports have a final destination in the south east.

205. The regional airport studies have appraised four different national policy scenarios in each region:

- continuation of current trends;
- constrained growth;
- facilitating growth; and
- south east capacity constraint.

206. The continuation of current trends scenario is intended to provide a baseline against which other scenarios can be evaluated. It broadly assumes that the existing aviation, environmental and fiscal policies remain in place, that current commercial trends continue, and that increasing market maturity leads to gradually declining rates of growth in the demand for air travel over the next 30 years.

207. The constrained growth scenario assumes the imposition of strict constraints on airport capacity, either throughout the UK or with growth permitted only at a limited number of airports where the environmental impacts of expansion would be comparatively small. This scenario also assumes the introduction of fiscal measures to suppress demand.

208. The facilitating growth scenario assumes a policy stance of catering for, and in some respects positively encouraging, the anticipated growth in demand. It assumes strong economic growth, the adoption of fully open skies policies, a benign fiscal climate, no constraints on capacity at any UK airports and the ready availability of capital for the necessary investment.

209. The south east capacity constraint scenario assumes strict constraints in the south east of England, with no new terminal or runway capacity at any of the major London airports above what is already envisaged in the land-use planning system, but with no constraints on the growth of regional airports.

210. Further details of the implications for each of the major regional airports, and of the local and regional impacts, will be set out in the regional consultation documents.

Role of Future Technology

211. New technologies may offer substantial efficiency improvements at many airports, helping to increase capacity on the runways and within the airport terminal. The potential benefit of future technology in reducing environmental impacts is addressed in the chapter on *Environmental effects*.

212. Better use of runway capacity may be achieved through use of aircraft surface management systems. These may improve efficiency by reducing taxiing times and ensuring the timely delivery of departing aircraft to the runway. To date, these systems are only concepts and European studies are currently developing demonstrator models. Their implementation timeframe is therefore long term. However, BAA has been participating in a study at Heathrow airport and initial results have shown that taxi times can be successfully reduced, saving time and also reducing fuel burn and therefore emissions. BAA is reviewing the possibility for similar initiatives at its other airports.

213. New technologies may also offer benefits to airborne movement rates at airports. Technologies that reduce, or give warning of, wake vortex effects, could increase runway utilisation through reduced aircraft separations whilst maintaining safety. But such systems are still at the research stage. An arrivals management system (AMS) could also optimise traffic flow in and around the airport, increasing runway rates and reducing time spent in the holding pattern. There are several research centres across Europe involved in the development of arrivals management and associated tools. At present, such systems are at the prototype stage with a few basic systems starting to be deployed, for example at Frankfurt airport. Departure management systems (DMS) follow a similar approach, optimising the spacing and ordering of the outbound traffic. It is expected that DMS will be developed after AMS and implemented in the medium to long term.

214. Further benefits may be obtained from satellite-based precision guidance systems that could allow a higher frequency of departures per runway, and the simultaneous use of closely spaced parallel runways. The potential environmental impacts of such technologies will need to be considered.

215. There is also intense pressure for airports to be more efficient and to provide a better quality of service to customers through improved ticketing, passenger management, security systems and baggage and freight processing. Various technologies may help to improve efficiency: e-ticketing, which helps to make check-in more efficient, is being used increasingly; trials are taking place on use of chip cards and radio frequency tags for passenger and baggage identification which should help to reduce transaction time; and new screening techniques and passenger identification systems are also being developed. IATA and ISO (International Organisation for Standardisation) common standards are being developed to enable interoperability between airports and airlines.

Questions on airport capacity

- a) Would it be desirable to implement new policies in order to make best use of airport capacity? If so, what policies should be implemented?
- b) Should the slot allocation regime be adjusted to take environmental considerations into account?
- c) What are the arguments for and against raising the cost of using airports where demand exceeds capacity?
- d) How can future technologies to reduce capacity constraints at existing airports best be used? How can the Government and the aviation industry encourage the development of such technologies?

Airport competition and ownership

216. The Government believes that the interests of consumers are generally best served by competition in a liberalised market. However, airports by their nature operate in a somewhat different environment. The integrated transport white paper made it clear that airports cannot be viewed in isolation from each other. They both compete with and complement each other to some extent. Each region will face specific issues in this area and the separate regional consultation documents will consider how each region might be best served by its airports.

217. Competition between airports may bring indirect benefits to the travelling public, but the first line customers are the airlines rather than the passengers. Whether the benefits from airport competition, such as improved service provision or lower airport user charges, will pass through to passengers will depend on the competitiveness of the airline market. Airport competition must therefore be considered in terms of impacts on both airlines and passengers.

218. Co-operation between airports may also have a role to play. For instance, where the principal airport in a region becomes congested, there may be a role for co-operation with other airports within that region to encourage the most efficient use of airport infrastructure and to facilitate the financing of major investment in infrastructure at relatively small airports, where desirable. There may also be economies of scale, and smaller airports may be able to draw on the skills or knowledge of the larger airport. However, co-operation must take account of the Competition Act 1998. The Act allows co-operation where users can be seen to benefit, but it prohibits agreements and practices that might affect trade and prevent, distort or restrict competition. It also prohibits the abuse of a dominant position. Any direct cross-subsidy should be avoided.

219. The Chancellor announced in the 1999 Budget that the Deputy Prime Minister would undertake a review of competition in the airports sector. The objective was to consider how best to further the long term interests of UK airport users and the travelling public. The conclusions of the review were announced in the pre-budget report in November 2000.

220. As the BAA London airports handle the great majority of air traffic passing through the UK, an important consideration was whether separating the ownership of these airports would generate competition between them and deliver passenger benefits. The conclusion was that the scope for such competition was currently constrained by the lack of unused capacity in the system, and by the planning regime, which means that decisions on whether there should be substantial new airport infrastructure in south east England will in practice be a matter for Government. If the BAA airports were in separate ownership at present, it is unlikely that they would be able to compete more vigorously for new traffic than they already do. The Government has therefore decided that for the time being it will not pursue further the possibility of breaking up BAA.

221. The review did conclude however, that the existing economic regulatory regime should be refined and that the creation of a transparent market in slots at the most congested airports would

bring significant passenger benefits. We will work with the CAA to develop modifications to the current regulatory regime to improve incentives for timely investment and improved quality of service.

222. The CAA produced a paper in July 2000 on what might be done within the existing legislative framework. The options include abolition or adjustment of the single till, under which revenues from non-aeronautical activity at an airport are used, in effect, to subsidise airport user charges. The boundaries of the price cap might also be adjusted, to include services provided on a monopoly basis and to exclude those where there is competition. We might also consider the possibility of bringing competition into more areas of service provision. The Government will provide input into the CAAs review process.

223. The Government has also identified several possible proposals for change that would or could require changes to primary legislation:

- permit the CAA, rather than the Competition Commission, to undertake an investigation before they set the price cap, the Competition Commission assuming an appellate role;
- give the CAA concurrent powers with the Director General of Fair Trading to enforce general competition law (Competition Act 1998 and monopoly provisions of the Fair Trading Act 1973) in the airports sector;
- give the CAA a new primary statutory duty to promote the interests of consumers;
- give the CAA reserve powers to set minimum quality of service standards where it considers that either an airport or its users are acting unreasonably in failing to reach voluntary agreements, and introduce financial penalties for failing to comply with these;
- extend the period for which the price cap is set to perhaps 10 years, to reduce regulatory risk; and
- allow long term contracts between airlines and airports for the provision of dedicated infrastructure to fall outside the price cap for the duration of the contract.

224. Competition between airports is not limited to airports within the UK. For a proportion of passengers, the major European airports are competitors with the major UK hubs for many destinations. Some 1.5 million passengers a year start an air journey from a UK airport outside south east England and make an onwards connection at an overseas airport⁵⁴. Further information on the impacts of the development of continental airports is included in the section on *International context*.

Questions on airport competition and ownership

a) Does the current economic regulatory regime for airports properly safeguard against abuse of position? Does it provide the right signals to the airport about timely investment? How might it be improved?

Planning for airport development

225. Expansion of an existing airport or development of a new site is likely to have a major effect on surrounding areas. Airports have the potential to create considerable development pressures. These are not only in respect of airport operations themselves, but also through wider effects. In particular, there may be increased demand for housing, schools, hospitals and other services to support additional employees and their families, as well as pressures associated with secondary employment stimulated by the airport. New and expanded surface access facilities may also be needed.

226. Airport expansion or development of a new site may result in increased demand for the development of greenfield sites. The Government is seeking to protect the countryside against unnecessary development and to promote an urban renaissance by encouraging new development to take place on previously-developed land in existing towns and cities. The white paper on rural policy in England, *Our Countryside: the Future: A Fair Deal for Rural England*, and the white paper on urban policy in England, *Our Towns and Cities: The Future. Delivering an Urban Renaissance*, both published in November 2000, give more information. The Government has set a specific target that by 2008, 60 per cent of additional homes should be built on previously-developed land and through conversion of existing buildings. Airport development needs to be planned in a way which does not undermine these objectives and, wherever possible, supports them.

227. Land-use planning is essential to ensuring that future development of airports is sustainable. Before decisions can be taken about development of additional airport capacity at new or existing sites, the full impact needs to be assessed, in terms of economic, environmental and social consequences. We need solutions that integrate the impact of the airport development with its implications for commercial development, housing, services and surface transport access.

228. At regional level in England both the new regional spatial strategies, Regional Planning Guidance (RPG), and the Regional Development Agency (RDA) strategies have a major role to play in planning airport development. RPG and RDA strategies are intended to be mutually reinforcing and both should take account of national airport policy. Equally, objectives set out in RPG and RDA strategies should be taken into account when considering major airport development. Decisions about the timing of airport development also need to link with the objectives for infrastructure provision set out in RPG, regional transport strategies (which are an integral part of RPG), local authorities development plans and local transport plans.

229. In Scotland, decisions about airport development should similarly link with the national planning policy guidelines, structure and local plans and local transport strategies. Decisions in Wales should link with development plans and local transport plans. In Northern Ireland, decisions will need to link with regional development strategies and regional planning policy statements.

Handling of Major Projects

230. It takes far too long to process major projects through to a decision. The process is lengthy, unwieldy and expensive for all concerned. That is why the Government published a consultation paper in 1999 on streamlining the processing of major projects through the planning system in England⁵⁵. This was part of the modernising planning agenda. It focused on projects of national significance, such as new or expanded airports. The purpose was to cut unnecessary and costly delays in decision-making whilst continuing to ensure that people have an adequate opportunity to contribute their views.

231. One of the proposals in the consultation paper was that statements of national policy should be published before major projects were considered in the planning system. These would set a clear national policy framework for the consideration of specific projects and thereby avoid unnecessary speculation and debate at subsequent planning inquiries.

232. The air transport white paper could provide such a national policy statement for airport development. Consequently, subsequent revisions of RPG, or national planning policy guidelines in Scotland, and structure and unitary development plans in the relevant regions would need to reflect this.

233. In advance of the air transport white paper, consideration of airport matters should continue to take account of policies set out in the integrated transport white paper, as well as existing planning and airport policy.

Planning and The Environment

234. The planning system has an important role to play in controlling and mitigating the environmental effects of airport development. These include effects on natural habitats, biodiversity, noise levels and pollution.

235. Airport development may be constrained by statutory and non-statutory designations which protect:

- the openness of the countryside (such as Green Belts);
- the beauty of the landscape (such as National Parks, Areas of Outstanding Natural Beauty and National Scenic Areas in Scotland);
- sites of nature conservation interest (including SSSIs and international sites, such as special areas of conservation, special protection areas and Ramsar sites); and
- sites of historical or archaeological value (such as scheduled ancient monuments).

236. Planning policy guidance in England on Planning and Noise (PPG24) also guides local authorities on the use of their planning powers to limit the adverse effect of noise. This includes policies on the location of housing and other noise sensitive types of development, such as schools and hospitals. For major airports, noise contours have been produced for many years to aid development control. In Scotland, guidance on planning and noise is contained in the Scottish Executive Development Department (SEDD) Circular 10/99 and Planning Advice Note 56. The Government published PPG24 in 1994 and we have no immediate plans to revise it. Nevertheless, there is now an accumulation of experience in following its principles in respect of developments near airports, and we would be interested to know how fully the guidance assists local authorities in formulating development plans and assessing applications.

237. The role of planning conditions in controlling and mitigating environmental effects could be extended further by setting environmental capacity limits at airports. Specific limits on local environmental impact, such as noise or local air pollution, could be specified. The airport would then be bound by these limits. This would then give airport operators the freedom to operate as efficiently as possible within those limits, thereby encouraging innovative solutions to environmental problems associated with airport development.

238. Some airports are already pursuing this idea. For example, Luton airports development brief, published in February 2000, proposes the use of environmental capacity limits. The brief explains that setting limits in this way enables airport operators to use their ingenuity to operate at the optimum level for their business.

Working With The Local Community

239. Many commercial airports have set up consultative committees which aim to provide an effective forum for discussion of aspects of the development or operation of an airport that affect the people living and working in the surrounding area. In 1987 the Government published guidelines on how these committees should operate⁵⁶. Committees should preferably be independently chaired and should ensure a fair representation of the full range of local interests. The

guidelines do not refer to representation of regional bodies on committees. It remains the Governments view that these committees are a useful and important way of ensuring that local communities and airports work together. It may be timely to update and reissue the guidelines on their operation.

240. Several airports are also beginning to develop informal and legal agreements with their local communities on specific matters, in particular environmental issues. For example, Manchester and Birmingham airports have entered into wide-ranging legal agreements with their local authorities. BAA is progressing its *Contract with the Community* approach at its airports (called *Programme Towards Sustainable Business* at Heathrow). When airports bring forward individual planning applications they will continue to be determined in accordance with the relevant local authority development plan. The Government supports initiatives such as these that aim to improve relations between an airport and its local community.

Compulsory Purchase and Compensation

241. All major airports have compulsory purchase order powers for the acquisition of land. They are authorised to use them only with Ministerial consent and only when to do so is in the public interest. Where land has to be compulsorily purchased, landowners are entitled to claim compensation on the basis that applies generally.

242. Compensation may also be available for losses suffered during the construction period and for the depreciation in value of a property caused by physical factors such as noise, vibration, smell, fumes, smoke, artificial lighting and the discharge of any solid or liquid substance.

243. The Government is currently reviewing the laws and procedures relating to compulsory purchase and compensation. The Compulsory Purchase Policy Review Advisory Group published its final report, *Fundamental Review of the Laws and Procedures relating to Compulsory Purchase and Compensation*, in July 2000 for comment. The report recommends that compulsory purchase and compensation legislation be consolidated, codified and simplified. It makes many other recommendations designed to speed up and simplify procedures and make the process fairer. The report represents the advisory groups recommendations. The Government expects to publish its policy paper, informed by the report and the comments on it, in the new year.

244. As the new framework for air transport will look 30 years ahead, it may be possible for it to offer different opportunities for compensation. Statutory compensation requirements may be supplemented by voluntary initiatives to compensate for or mitigate the effect of significant airport development. Possible measures could include voluntary property buyout schemes on more attractive terms. These might be as well as, or instead of, statutory arrangements or further measures to mitigate impacts. Such measures should be formulated and agreed with the local community.

245. Local planning authorities may also seek financial contributions from developers to offset the costs of, for example, servicing new development. They do this under an arrangement known as planning obligations or section 106 agreements. The Government will be consulting about proposals for the reform of planning obligations, including the possibility of charging impact fees that would, to a greater or lesser extent, reflect the wider costs of development. If the Government were to pursue the impact fee concept, then it might be one way of mitigating the local effects of airport development.

Questions on airport planning

- a) Do you consider that the guidance in PPG24 on noise sensitive development near airports is easy to understand and interpret? Has the guidance achieved its objectives?
- b) Could the concept of environmental capacity limits be applied successfully to UK airports? How would limits be set? Would these be alongside or instead of limits on passenger throughput?
- c) Would it be useful to update and reissue the guidance on the operation of airport consultative committees? Would it be desirable to include representation of regional interests on committees at larger airports?
- d) Should the Government encourage a system of voluntary environmental agreements between airports, airport users and local interests, which could provide an agreed framework for development and complement the statutory role of the planning system?
- e) How should people best be compensated for the environmental impact of airports on their local area? Should the Government encourage greater use of voluntary arrangements to compensate for, or mitigate the effects of, significant airport development?

Integrated transport

246. Major airports have the potential to become transport hubs, bringing together several forms of transport to provide efficient interchanges. They need to be well served by surface infrastructure, integrated within the existing infrastructure as far as possible, and planned in order to minimise environmental impact. The provision of such an integrated system, including a good transport information system, will benefit customers and the community surrounding an airport by reducing congestion and pollution, and making transfers between different forms of transport easier. However, such hubs also risk attracting more traffic to already congested areas.

247. In July 2000 the Government published *Transport 2010: The 10 Year Plan*, which set out plans for substantially increased spending of £180 billion over the next ten years to modernise our transport system. Although the plan focuses on land transport, it includes improvements in surface access to airports. It recognises the importance of airports as transport hubs. It also recognises the challenges posed by the projected growth in passenger and freight traffic through airports. The plan's aims include addressing the problems of congestion and pollution. The Government would like to see a higher proportion of journeys to airports being made by public transport. This would help to combat traffic congestion and reduce local air pollution and greenhouse gas emissions that cause climate change.

248. Many airports have already begun to develop good surface access schemes. Specific developments include the Heathrow Express, the Gatwick Express and the new Luton Parkway station. Several major new projects for improving access to airports are likely to come forward in the future, subject to the completion of any necessary statutory procedures:

- a new transport interchange at Manchester Airport which will include a new bus and coach station and an expanded railway station;
- an extension of the Docklands Light Railway to London City Airport;
- an interchange between different forms of transport at Birmingham International Station; and
- the FASTWAY dedicated bus priority network serving Gatwick.

249. All local authorities in England and Wales are required to develop local transport plans. These plans will run for five years and provide integrated transport strategies for the local area. The integrated transport white paper set out the requirement for all airports in England and Wales which

have 1,000 or more scheduled and charter passenger airtransport movements per annum to establish and lead an Airport Transport Forum (ATF). Forums should have three specific objectives:

- to draw up and agree challenging short and long term targets for increasing the proportion of journeys to the airport made by public transport;
- to devise a strategy for achieving these targets an Airport Surface Access Strategy (ASAS) which will feed into local transport plans; and
- to oversee implementation of the strategy.

250. It is hoped that surface access strategies will improve integration and widen the choice of transport options for travel to and from local airports. Airports need to work closely with the local authority in preparing these strategies. In July 1999, DETR published guidance to airport operators, their potential partners and other interested organisations, on setting up ATFs and the scope, content and handling of ASAS⁵⁷. DETR later published a best practice guide, *Airport Transport Forums Good Practice Guide*, in April 2000.

251. In Scotland, both local transport strategies and regional joint strategies should address airport access issues in their consideration of wider local and regional transport problems and opportunities. The Scottish Executive will issue guidance on the establishment and role of ATFs. Similarly, in Northern Ireland, local transport plans should address these issues. The Department for Regional Development is preparing a regional transportation strategy as a strategic framework for the future development of local transport plans.

252. The success of schemes to improve surface access to airports will be reliant upon effective co-operation between a range of service providers. The integrated transport white paper stated that the Government expects the aviation industry to help pay for improvements to surface access. How much the industry provides should reflect the extent to which it benefits from the improvements.

253. In 1999, the Deputy Prime Minister issued new instructions and guidance to the Director of Passenger Rail Franchising, asking for better integrated transport measures, both within the rail network and between rail and other forms of transport through re-negotiation of the terms of franchise agreements. In June, the shadow Strategic Rail Authority (SSRA) set out an indicative map of likely future rail franchises. The map included an indicative Airport Express franchise based on the current Gatwick Express franchise but this could also include Stansted Express and a marketing link with Heathrow Express.

254. As part of its work supporting SERAS, DETR, in conjunction with the SSRA, commissioned a study to examine the scope for developing rail links between London's principal airports. The study concludes that a relatively small number of passengers are likely to wish to transfer between London airports and that this market would not be large enough to support investment in new direct inter-airport rail services or infrastructure. However, such schemes would be more successful where new rail services or infrastructure could be provided as part of a co-ordinated approach, incorporating the much larger non-airport market and providing access for local passengers.

255. The SSRA are also conducting a study to identify a network of rail links and interchanges which would allow passengers to travel from any part of south east England to any of London's major airports, either directly or with only one change. The study focuses on the next 10 years, but it will also provide a useful framework for assessing requirements that might arise from longer term development of airports in the south east. As such this work will also provide an important input to the south east regional airports study.

256. Not only do we need to consider rail links to and from airports, but also substitution between different forms of transport. Air travel provides a unique service for long distance travel. But for shorter journeys, alternatives such as rail may be possible. This could help to free up runway slots and airspace that could be used for longer journeys. There may also be some environmental benefits.

257. The Channel Tunnel rail link provides competition on the London-Paris and London-Brussels routes. Since the Channel Tunnel opened, air passenger numbers between London and Paris have fallen. However, this has not been fully translated into a similar reduction in air traffic movements and there is evidence that operators are switching to smaller aircraft.

258. Other European countries have encouraged substitution. For example, in July 1998 the airline Lufthansa and the railway company Deutsche Bahn AG signed a memorandum of understanding to transfer short-haul routes from air to rail once new high speed rail routes are in operation in Germany. Lufthansa hopes the new initiative will help to free up slots at Frankfurt airport for longer-haul flights. The USA and France have also reached an agreement under which US and French airlines are able to offer passengers services that include a connection by rail or another surface form of transport within the other country.

259. The SSRA has commissioned a study into the scope for high speed rail to replace air services on specific domestic routes to London and its airports⁵⁸. This examined routes potentially served by four main high speed rail links in the UK. It found that proposed improvements to high speed rail services might result in some transfer of traffic. The passengers likely to transfer were concentrated in the leisure and city centre to city centre markets. With the exception of Manchester-London, the numbers transferring would be marginal and decrease with distance from London. Perhaps more importantly, the scenarios considered indicated that numbers of passengers likely to substitute from air to rail would not be sufficient to affect fundamentally the viability of air services. Continued growth in demand for air travel would mean that, over time, new air passengers would replace any passengers transferring to rail.

260. The Commission for Integrated Transport has commissioned a further study into the comparative environmental effects of rail and short haul air travel. This study should be concluded in 2001 and will help to inform policy developments in this area.

Questions on integrated transport

- a) Is there anything further that the Government or the aviation industry can do to encourage increased public transport use to access airports, and to encourage greater use of airports as inter-modal hubs connecting different forms of transport?
- b) Should surface access connections to airports be regarded as essential components of airport development and approval for any new capacity be made conditional on appropriate connections being provided?
- c) What are the best mechanisms for bringing together the various interested agencies in order to establish the best surface access connections?
- d) What are the likely costs and benefits of substitution between short haul air travel and rail, for example between London and major regional centres? If the benefits outweighed the costs what could the Government do to encourage substitution?

47 *The Appraisal Framework for Airports in the South East and Eastern Regions of England* DETR, November 2000.

48 Regulation EC 95/93.

49 *The First Five Years of the European Single Aviation Market* CAP 685, CAA, June 1998.

50 States of Guernsey v Airports Co-ordination Ltd.

51 EC Market Access Regulation: Council Regulation (EEC) No 2408/92.

52 *Airports Policy* Cmnd 9542, June 1985.

53 *Connecting Traffic at UK Airports* CAA, May 1998.

54 CAA evidence to the ETRAC study on regional air services (1997) *ETRAC Eighth Report, Regional Air Services, Volume II, Appendices to the minutes of evidence taken before the Transport Sub-Committee* (Appendix 1) 15 July 1998.

55 *Modernising Planning: streamlining the processing of major projects through the planning system* DETR, May 1999.

56 *Guidelines for Airport Consultative Committees* DOT, December 1987.

57 *Guidance on Airport Transport Forums and Airport Surface Access Strategies* DETR, July 1999.

58 *Regions to London and Londons Airports Study* commissioned by the shadow Strategic Rail Authority, final report expected December 2000.

Chapter Eight: Airspace

Role of air traffic management

261. Air traffic management has a key role in ensuring safety and maximising airspace capacity. Effective air traffic management may also help to minimise emissions, for example by reducing delays and reducing the need for aircraft to join holding stacks prior to landing, and it may also help to reduce noise around airports from aircraft approaching to land.

262. If air traffic grows as projected, air traffic management systems will face a significant challenge. European air traffic management will require institutional change to separate airspace, safety and economic regulation from service provision. It will also need such a change to compel states and service providers to meet commitments stemming from centrally made political decisions and to introduce the benefits of a business approach to air traffic control (ATC), where the supply of services keeps pace with customer needs. If ATC capacity is to have a chance of keeping pace with forecast traffic growth, significant investment in new infrastructure and the use of more advanced technologies will be needed across Europe.

263. Despite best endeavours by the many stakeholders involved, experience shows that ATC capacity often fails to meet demand. Numerous bottlenecks exist across Europe and it is difficult to overcome them all. The result of any imbalance in capacity and demand is an increase in delays for customers and costs and inconvenience to industry and the travelling public. New technology will deliver significant increases in airspace capacity and reduce flight-operating costs. But this raises questions of how to fund investment in this new technology and which projects to develop. To deliver the desired gate-to-gate service, air traffic management increasingly needs to be considered at the international level. EUROCONTROL, the European Organisation for the Safety of Air Navigation, has primary responsibility for this in Europe.

Role of EUROCONTROL

264. The Government is committed to:

- playing a prominent role in EUROCONTROL;
- ensuring that EUROCONTROL continues to co-ordinate and harmonise European air traffic management effectively;
- ensuring that EUROCONTROL uses its powers under the 1997 revised EUROCONTROL convention to improve its flexibility to accommodate new tasks and to adopt a more business-like culture; and
- securing the European Community's early accession to EUROCONTROL in order to maximise political, economic, legal and social influences in favour of strengthening and reforming the organisation so that it becomes increasingly responsive to the needs of European airspace users and capable of co-ordinating an appropriate reaction by the European air traffic management system.

265. EUROCONTROL has various actions in hand to reduce delays and increase European airspace capacity. It is, for example, currently implementing its air traffic management strategy for 2000+ which is designed to help accommodate the expected increase in aviation traffic up to 2015. The European Commission has also suggested the need for further reform of European air traffic management, and it presented a Communication entitled *Single European Sky* to the Transport Council in December 1999. The Government welcomed the Commission's interest in the future of

European air traffic management and is participating fully in the high level group activities stemming from the communication.

266. The Government recognises that we need international co-ordination of ATC arrangements and systems for efficient operation to minimise delays. But this raises issues of sovereignty and co-ordination and integration of national systems. The Government supports moves to improve co-ordination and the development of a more integrated and seamless service in Europe. But it will be important to build on the existing framework and capabilities of the main players.

EUROCONTROL might, for example, co-ordinate and regulate the provision of air traffic services in Europe, acting as a facilitator of efficient, commercialised air traffic service providers. Air traffic service providers across Europe could also work together to implement agreed capacity enhancement plans, together with stakeholders from the airports, airlines and other interested parties. These developments would require institutional reform of EUROCONTROL to separate service provision from regulation.

NATS public/private partnership

267. On the domestic front, the Government decided in July 1999 that the best way forward for the National Air Traffic Services (NATS) was to set up a public/private partnership (PPP). NATS is the provider of air traffic control in controlled airspace over the UK and the north east Atlantic, and at many UK airports. The aim of the PPP is to deliver a safe, modern and efficient air traffic control system. In addition to bringing the benefits of completely separating service provision from the regulation of ATC services, it will make a major contribution to NATS ability to deliver the UK's major ATC projects now and in the future. It will do this by giving it enhanced investment and project management skills as well as greater access to private capital for investment. This, in turn, should provide a platform for the NATS PPP to exploit some of the opportunities that are expected to emerge internationally, exploiting its expertise abroad and expanding into new markets.

268. The NATS PPP should lead to better and more efficient use of airspace, the quicker introduction of computer-assisted tools to increase controller productivity and more aircraft being moved safely through our skies. This will help to keep safety-related delays in check, benefiting airline passengers in the UK.

269. The Government recognises that UK airspace is a relatively scarce resource and that arrangements for its use must be fair to all users. Under the PPP, airspace policy and regulation will remain in the public sector and, as currently, independent of NATS. Airspace policy will become a function of the CAA discharged through the Director of Airspace Policy (DAP). The DAP will continue to determine the structure and classification of airspace in consultation with airspace users as well as air traffic services providers.

Military use of airspace

270. The European Commission's Single Sky initiative is also considering, among other things, the interface between civil and military airspace use in Europe and how to initiate closer co-operation to maximise use of airspace. The Government would like to encourage uniform implementation across Europe of the flexible use of airspace concept (FUAC), whereby contact between civil and military control agencies is so close that civil use of airspace allocated for military purposes is enabled safely when there is no military activity.

271. In the UK there is an excellent working relationship between the Directorate of Airspace Policy of the Civil Aviation Authority, the RAF and NATS. This has resulted in the full implementation of the FUAC. This enables airspace to be used effectively, safely and

as expeditiously as possible. All parties are taking every care to ensure that the relationship is preserved once the PPP for NATS is established.

Future technology

272. Incremental improvements in ATC operations, such as the introduction of reduced vertical separation minima between aircraft, will enhance airspace capacity whilst not compromising safety. But such improvements will be unlikely to satisfy forecast capacity demand in the medium to long term. If growth continues, more fundamental changes will be required to the way ATC is delivered, so that systems for controlling aircraft movements, both on the ground and in the air, can be harnessed together to improve traffic management whilst ensuring that safety standards are maintained. The development of new concepts of operation supported by future technologies is therefore very important in this area.

273. Satellite navigation is one technology that has introduced new possibilities for ATC. Satellite navigation could be a global service, and therefore all the states which have or are developing satellite navigation systems have an interest in co-operating on their development, operation and regulation. In the EU, mandates have been agreed for negotiations on satellite navigation co-operation with the US and the Russian Federation and discussions are in progress. ICAO is also establishing performance and operational standards.

274. The global positioning system (GPS) is already in operation, and the European geostationary navigation overlay service is expected to be operational by 2003. In February 1999 the European Commission also put forward proposals for a new second generation of satellite navigation services known as Galileo. But there are questions over the cost, funding and security of the project, as well as questions over the need for it when it is possible to rely on European augmentation of GPS.

275. Many other new concepts of operation are also being developed, supported by future technologies. These include use of very high frequency (VHF) datalinks, used to communicate information on a range of aircraft parameters from the aircraft to the ground; ADS-B, which periodically broadcasts an aircraft's position and velocity and other information; and other controller tools. Many of these tools should help to bring about free or direct routing. This should reduce the delays which occur en route, estimated to account for roughly half the total delays experienced by aircraft operators due to airspace related problems⁵⁹.

276. Introduction of such technologies relies upon standards being in place before the technologies can be developed and implemented, and regulation being in place to ensure their timely take-up by users and providers. The Government is already involved in the development and agreement of standards at international level. We need to keep up the impetus if new technologies are to be brought to fruition. The commercial take-up of the most promising technologies also seems more likely in a framework within which future investments can be planned. Therefore, improved ATC harmonisation, promotion of robust benchmarking and greater transparency may help to increase technology take-up.

Questions on airspace

a) How might EUROCONTROL, the EU, the CAA and NATS ensure that, if necessary, additional (i) airspace capacity; and (ii) air traffic service capacity, is created? How could the costs of this, both economic and environmental, be minimised?

b) How might Europe's air traffic services be liberalised?

c) Are we striking the right balance in the allocation of airspace between different classes of user? What changes, if any, might help in the future?

d) How should research and development efforts into new technology in air traffic management be stimulated and funded? Should the Government help to secure implementation of such technologies?

59 *Study into the Potential Impact of Changes in Technology on the Development of Air Transport in the UK* produced by Arthur D Little for DETR, December 2000. Source: *Air Traffic Management Strategy for 2000+* Eurocontrol, 1998.

Chapter Nine: Airlines

277. The main issue facing the Government in relation to airlines is what we should do to facilitate the further, sustainable development of the UK's successful airline industry. Development should aim, as far as possible, to meet the needs of consumers, bring wider economic benefits to the UK and protect the environment.

278. Probably the greatest inhibition to the development of many UK airlines is the lack of capacity at the London airports, especially Heathrow and Gatwick. Both are now so full that it is impossible to develop them as true hubs, with aircraft arriving and departing in waves thereby providing fast connections for passengers in the way that they do at Charles de Gaulle Airport and US hub airports. The shortage of capacity also inhibits the development of air services. If UK-US air services arrangements are liberalised, capacity constraints are such that air services between Heathrow and Gatwick and the US can probably only be increased at the expense of services in other markets.

Airline Competition

279. Government policy on airline competition was last set out formally in the 1984 whitepaper on airline competition policy⁶⁰. It said that the Government's objective was to encourage a sound and competitive multi-airline industry with a variety of airlines of different characteristics serving the whole range of travellers' needs and strong enough to compete aggressively against foreign airlines. Major airlines now operate on a global scale. The Government's policy should reflect changes such as the development of alliances, code-sharing and franchising, against the background of our belief that the interests of consumers are generally best served by free and fair competition between all airlines, whether UK or foreign-owned, in a liberalised market. Government policy also has to take account of the UK's obligations under EC treaties in the competition field.

280. These changes may lead to a concentration of power in particular markets. This is potentially to the detriment of consumers, but may in other respects sometimes offer benefits to consumers. The Government's mergers response document⁶¹ issued in October 2000 recognised that a merger may have different effects in different markets. It may lead to consumer benefits in one market through, for example, efficiency gains or more effective competition, whilst leading to adverse effects on consumers in another market through a reduction in competition. When contemplating remedies in such cases the competition authorities need to try to ensure that the potential consumer benefits are not lost.

Ownership and Control of Airlines

281. Most major airlines have now joined some form of alliance. Examples include:

- the oneworld alliance based around British Airways and American Airlines;
- the Star Alliance embracing United Airlines, Lufthansa and British Midland; and
- the Sky Team alliance embracing Delta Airlines and Air France.

282. In fact, the development of airline alliances has now reached the stage where in some markets the question may arise whether the issue is competition between individual airlines or competition between alliances and hubs.

283. The restrictions in bilateral agreements on ownership and control of airlines, which make international mergers difficult, have in part encouraged alliances and code sharing. The UK has revised its model air service agreement so that airlines from countries that accept it no longer have to be majority owned and controlled by nationals from that country. However, airlines must have their principal place of business in that country and have an air operator's certificate issued by its authorities. In this way we maintain direct oversight of safety and flags of convenience airlines are not able to operate. Conversely, countries accepting the UK's model agreement also agree to accept airlines based in the UK which are owned and controlled by nationals of other EU member states. But for this general approach to be effective, other countries need to take a similar line. The Government has acted to encourage ECAC countries to adopt a similar approach.

Air Service Agreements

284. The Government's overall objective in negotiating air service agreements is to negotiate fully liberal agreements. This would allow any airline from the UK and the country concerned to operate any route between the two countries and to decide on frequency of service and tariff levels.

285. The Government believes that customers are best served where there is competition in the provision of air services. The UK has a number of effective international airlines, so liberalisation of aviation markets benefits consumers, passengers and shippers, and, therefore, is in the national interest. Where full liberalisation cannot be agreed, either because the right conditions for fair competition do not exist or because the other country follows a protectionist policy, the Government seeks to increase the rights of UK airlines. However, we also take into account the benefits which services by foreign airlines may bring to UK consumers, airports and regional economies.

286. Where full liberalisation has not proved possible, the Government has often succeeded in agreeing unlimited flights by the airlines of both countries to and from UK regional airports. There has been pressure from some airports to go one step further and offer unlimited access to UK regions for foreign airlines even if the offer is not reciprocated. But the Government does not believe that it would be in the long-term interest of UK passengers to allow foreign governments the opportunity to establish monopoly services for their carriers from the UK's regional airports.

287. There has also been pressure to grant, unilaterally, fifth freedom rights⁶² from UK regions, to encourage the development of long-haul services to the regions. In the interests of retaining bilateral negotiating leverage the Government has traditionally taken a more cautious line on granting fifth freedom rights to foreign carriers. We normally seek rights of similar value in return. But we have been prepared to be flexible, granting fifth freedom rights from the UK regions where the wider UK economic benefits outweigh the adverse effects on UK airlines.

288. Open fifth freedom rights, from the London airports as well as from regional airports, is one of the demands by the United States in our long-running negotiations with them. It forms part of the United States open skies template. It should be noted, however, that this template does not extend to opening up their own huge domestic market to foreign competition.

289. There are particular issues relating to cargo airlines. These have benefited from liberalisation within Europe, but the great majority of UK air freight is moved to or from countries outside the EEA. Further liberalisation of traffic rights to non-EEA countries might open up more opportunities to UK cargo carriers and in turn to businesses and consumers of air cargo. However, the issue of granting foreign carriers fifth freedom rights from the UK to EU destinations worries many members of the UK air freight industry. They point to imbalances in current bilateral arrangements, most notably between the UK and the US. Regional airports, on the other hand, and many shippers,

emphasise the economic benefits to business that might be expected to flow from granting these rights.

Allocation of scarce bilateral capacity in the UK

290. The UK has procedures governing the allocation between airlines of scarce bilateral capacity. When the capacity available to UK airlines under a bilateral agreement is insufficient to allow them to operate all the services they would wish to, the capacity actually available is allocated by the CAA following a public hearing. There is a right of appeal to the Secretary of State, who may uphold the CAA's decision or direct it to rehear the case or to reverse or vary its decision.

291. The Government is aware of some dissatisfaction over the current procedures, especially in view of the small increments of capacity being made available by some foreign authorities, which is in part due to the lack of capacity available to foreign airlines at Heathrow. The Government is considering with the CAA how the procedures can be made to work more smoothly within the existing legislative and policy constraints. Radical changes to the existing procedures would probably require primary legislation.

The single European aviation market

292. Within the EEA a common aviation market has replaced the traditional bilateral system of air service agreements. It imposes no economic controls on capacity or routing, offers minimum regulation of fares, and makes no distinction between scheduled and charter flights. The evidence suggests that the single European aviation market has brought clear benefits to consumers. However, it has also led to possible environmental costs through the use of smaller aircraft, lower load factors on some routes and multiple frequencies. These can add to airspace congestion with knock-on effects upon route mileage, ground delay, fuel burn and noise.

293. Where competition has developed it has often led to substantial price reductions, increased choice, and better value for money. In particular, it has prompted the rapid spread of low cost, no-frills operators such as Ryanair, Easyjet and Go, particularly in the UK, and there has been a significant shift across Europe towards commercialisation and privatisation of major carriers. Distortions in the working of the market may still occur because of anti-competitive behaviour, overt or covert state subsidies, or lack of transparency in providing information to consumers, and with the prospect of the single market extending eastwards, attention will continue to be directed at making the market more effective.

Multilateral agreements

294. The European Commission has increasingly sought a Community-wide approach to aviation relations with non-EU countries. The UK's view is that negotiations must be considered on a case by case basis and that the Commission must demonstrate clearly the added value of negotiating traffic rights at Community level before Member States can consider granting a mandate for such negotiations.

295. The Commission's most significant proposal on external relations is that there should be Community-level negotiations with the United States with a view to establishing a Trans-Atlantic Common Aviation Area (TCAA). UK policy is to liberalise the UK-US market as quickly as possible. So long as bilateral negotiations with the US represent the best prospect of securing this within a reasonable timescale the balance of advantage is against granting the Commission a full mandate. In the longer term, however, we can see advantage in a TCAA which offered a free market to all Community and US carriers and where the authorities' role would be limited to ensuring that

competition was free and fair, that high standards of safety and security were ensured and that consumers were assured of adequate protection.

GATS

296. We should also consider whether it would be appropriate to bring air transport services fully within the General Agreement on Trade in Services (GATS). At present, only limited auxiliary services (aircraft repair and maintenance, selling and marketing of air transport services and computer reservation systems) are specifically included. Traffic rights and services directly relating to their exercise were excluded because the existing global system of bilateral aviation agreements could not be reconciled with the GATS approach. Bringing traffic rights fully within its scope would mean in principle that each GATS member would have to offer all other members the terms of its most liberal bilateral aviation agreement (most favoured nation treatment).

297. It remains difficult to envisage the wholesale inclusion of traffic rights in the GATS in the next round, but it might be possible to consider including limited categories of traffic rights, such as for cargo or charter services, if a suitable approach could be devised. An approach covering aspects of aviation, maritime transport and overland transport of freight might be envisaged.

298. The GATS might also provide a means of liberalising national rules on ownership and control. Widespread removal of ownership restrictions, which would require action at EC level for member states, would help to stimulate competition, providing airlines with access to cheaper capital and a wider pool of management skills. Perhaps the most likely area for progress is in extending the range of ancillary services covered by GATS. There may be a case for including services such as ground-handling, which has now been liberalised under EC legislation.

Questions on airlines

- a) In the light of increasing globalisation of the aviation industry, how should the UK's approach to alliances, codesharing and franchising meet the objectives of sustainable development?
- b) Are there particular features of the analysis of competition in the airline industry which might differentiate it from other industries?
- c) Should the UK press within the EU for a change in Community policy on ownership and control of airlines?
- d) Is there a case for further liberalisation of cargo services? If so, what form should it take and what are the main considerations?
- e) In what circumstances should we consider negotiations between major aviation blocs (such as EC/US) or full inclusion of aviation in GATS?

60 *Airline Competition Policy* Cmnd.9366, October 1984.

61 Mergers: *The Response to the Consultation on Proposals for Reform* DTI, October 2000.

62 Fifth freedom rights: the right to fly into the territory of a country with which there is bilateral or multilateral air services agreement, and take on or set down traffic to or from third states.

Chapter Ten: Air freight

299. Many of the issues examined throughout this document affect both the air passenger and air freight industries. In this chapter we look at issues specific to the operation of the UK air freight industry.

300. Air freight (imports and exports) has grown rapidly over the 1990s. Tonnage carried by airfreight by about 7 per cent a year over that period⁶³. The majority of air freight comprises of:

- express documents;
- specialist machinery;
- electronic goods;
- telecommunications equipment;
- medical and pharmaceutical products;
- textiles;
- foodstuffs; and
- photographic equipment.

301. By weight, electrical machinery (15 per cent) is the largest export category, and fruit and vegetables (13 per cent) the largest import category⁶⁴.

302. Increasing use of international just-in-time delivery techniques, particularly in high tech growth sectors of the economy, suggests that demand may continue to grow at a similar level. Further use of e-commerce may also increase the demand in the express sector for overnight deliveries. The study of air freight in the UK carried out for the DETR indicated that unconstrained growth is projected at a rate of 7.5 per cent a year to 2010.

303. Around 70 per cent of all air freight and parcels traffic is currently carried in the baggage holds of passenger aircraft. The London airports currently dominate the market, particularly Heathrow which offers a wide selection of destinations and frequent flights. The UK freight forwarding industry is also concentrated around Heathrow, and goods are frequently consolidated there even when they are subsequently shipped from another airport. For instance, dedicated freighter loads flown out of Stansted may be assembled in warehouses at Heathrow.

304. There is some evidence of UK-based companies trucking goods to and from continental airports. Freight traffic through Brussels, for instance, has grown considerably in recent years. This may reflect the pressure on capacity at the principal airports of south east England. Heathrow and Gatwick both have a presumption against dedicated freighter services operating at times of peak congestion. At both airports this now means most of the day. Stansted has been the fastest growing freight airport in Europe (in percentage terms) in recent years, but the parallel growth in passenger flights may mean that pressures will develop there as well. The decision to use continental airports may also be price driven, but the Government has no evidence that this is a systematic problem. The result is an increase in lorry mileage, with the consequent problems of increased congestion and pollution. In the absence of additional capacity in the UK system, and in the south east of England in particular, the amount of traffic to the continent may grow.

305. There are indications that the proportion of freight carried in dedicated all-cargo flights may increase. This is partly due to growth in the small package/express sector, led by major consolidators such as FedEx, UPS and DHL. This sector is expected to grow very rapidly in the coming years; some industry forecasts suggest 20 per cent per annum is quite possible⁶⁵. It seeks airports that can offer 24-hour operations and have slots available for cargo operations at convenient times. This may, to some extent, be accommodated at airports that currently cater mainly for freighter traffic. But demand for this service is concentrated in the south east of England, and to be competitive the sector needs airport capacity there.

306. As the demand for 24 hour operations continues, there are likely to be increasing tensions between what the freight industry regards as essential to its viability, and environmental objectives, in particular noise objectives. In addition, the overwhelming majority of air cargo, and all mail/express packages, is delivered to and from airports by road, contributing to local pollution and congestion.

307. The Department's study of the air freight industry highlighted the current lack of effective integration between air and rail freight. Unlike at Schiphol and Frankfurt airports, there is currently little direct interface between air and rail freight at UK airports. This may in part reflect the fact that domestic freight movements in the UK are not of a length to make rail transshipment to airports commercially attractive. The lack of railhead facilities at the principal UK airports is also an important factor.

308. The Government hopes to increase the proportion of freight transferred to airports by rail. At certain airports, where the volume and nature of the traffic justifies it, airports should consider the potential for developing railhead facilities. Revised Planning Policy Guidance Note 11 makes it clear that regional transport strategies should provide strategic advice on the development of an integrated freight distribution network and should look, in particular, at links between airports and rail.

Consumers of air freight services

309. The primary consumers of air freight services are the shippers and receivers. The key issues for them are price competitiveness, speed and reliability. They have expressed concern that their needs are not always met within an industry structure which they view as being passenger oriented and lacking the facilities to deal directly with freight customers. This role falls to the freight forwarder, who negotiates directly with the airlines on a bulk space basis and sells this on to individual shippers. The shipper generally has no direct contact with his end supplier, the airline. This has led many shippers to call for a more transparent pricing structure in the air cargo market. Many shippers also believe that the air cargo industry is some way behind the rest of industry and commerce in its approach to modern supply chain management techniques, and there are complaints of poor cargo handling by scheduled airlines and inadequate compensation.

310. In order to promote efficient air cargo operations, the Government is discussing with the joint liaison committee of UK airport operators cargo committees a pilot project to benchmark performance within the air freight supply chain. Such key performance indicators will provide the industry with first hand information on the efficiency of their air freight operations within the UK and could allow the industry to respond better to the new demands being placed upon it.

Questions on air freight

a) Should the Government encourage the development of dedicated freight airports?

b) What action might be taken to reduce the specific environmental costs attached to the structure and operation of the air cargo industry? What role could rail play in the movement of freight to, from, or between airports? How could the Government promote the transfer of goods to airports by rail?

c) Is there more the Government could do to make the UK air freight industry more competitive, efficient and responsive to the needs of its customers?

63 Transport Statistics Great Britain Table 7.1c.

64 *UK Air Freight Study: Part I* produced for DETR by MDS Transmodal, December 2000.

65 Source: UPS as stated to MDS Transmodal consultants in the context of the *UK Air Freight Study* produced for DETR.

Chapter Eleven: General aviation

311. General aviation comprises a wide range of activities, including flying training, leisure flying by private individuals, and use of aircraft owned (either outright or on a shared basis) or chartered (air taxis) for business. This includes both fixed wing aircraft and helicopters.

312. While business and leisure flying should be differentiated in terms of their economic impact, both share concerns about reduced access to airport facilities, particularly in southeast England, and about restrictions on hours of operation. Access to Heathrow and other major airports for general aviation users is increasingly subject to restrictions. The ad hoc nature of much business aviation makes it difficult to plan, and to fit it into the pattern of movements at such airports. As capacity at peak times is put under more pressure, general aviation is likely to find it more difficult to access larger airports.

313. The industry is also concerned about the loss of smaller airports to redevelopment, and the imposition of conditions of use at others that limit their ability to cater for users needs. In particular, the industry has claimed that noise generated by general aviation may be particularly resented by local residents because they fail to see an economic justification for the activity. However, issues such as the effect of noise should be considered through the planning system, as it is for larger airports.

314. Planning Policy Guidance Note 13 includes guidance on issues affecting general aviation. It is currently being revised. A final version will be issued shortly. The draft issued for consultation in October said:

Small airports and aerodromes are also important: they can serve business, recreational, training and emergency services needs. As demand for commercial air transport grows, this General Aviation (GA) may find access to larger airports increasingly restricted. GA operators will therefore have to look to smaller airfields to provide facilities. In formulating their plan policies and proposals, local authorities should take account of the contribution of GA to local and regional economies; the national need for pilot training; and the benefits of having suitable facilities.

315. This recognises the contribution of general aviation to local and regional economies. In particular, business aviation allows the flexible movement of people and high value goods. Both the business and leisure aviation sectors are also a source of pilots for the commercial aviation sector. It is also important that local authorities take account of the social and environmental impacts of general aviation in deciding about the provision of facilities.

316. The Government has carried out a study into the future of business aviation in south east England. We have published parts 1 and 2, examining demand and capacity and the economic effect of business aviation⁶⁶. We will consider the implications of this work for future capacity for business aviation in the south east as part of the SERAS study.

317. Helicopter use has grown broadly in line with the economy. They are used mainly for business and general aviation purposes. Most inland helicopter use is for journeys to or from congested areas. For instance, the London heliport at Battersea now caters for some 11,700 movements a year⁶⁷. Helicopter noise can particularly concern local residents, although improved technology means that helicopters are less noisy than they were.

318. Some have suggested that there is potential to develop helicopter use as part of aviation policy. In particular, it has been suggested that greater use could be made of helicopters to provide links

between airports and for short journeys between city centres. Any decision to promote localised helicopter use would need to take full account of environmental and other consequences.

Questions on general aviation

- a) Should Government policy on general aviation build upon PPG13, perhaps with stronger guidelines about what should constitute suitable facilities for general aviation?
- b) Will it be possible to allow business aviation access to major airports where there is a pressing need to make the most efficient use of limited capacity?

66 Business Aviation in the South East: Part 1 Demand/Capacity Studies July 1998. Part 2 The Economic Impact of Business Aviation March 1999. Prepared for DETR by Halcrow Fox.

67 UK Airports CAA statistics (Table 3.1).

Annex A: Summary of questions for consultation

Main questions

- a) Should the Government choose policies that respond to the demands of consumers and allow current growth patterns to continue, while mitigating the negative effects as far as possible? Or are the costs of this approach too high and should we therefore choose policies to limit these negative effects?
- b) How should the Government ensure that aviation meets the external environmental costs for which it is responsible? Should greater emphasis be placed on regulation (at global, national or local level), economic instruments or voluntary agreements? If we should use a mix of approaches, what are the principles that should underlie the choice of approach for each issue?
- c) If aviation covers its environmental costs, should capacity then be provided to meet demand?
- d) Should the UK try to maintain its position as a major hub for international connecting traffic, or focus on enabling travel to, from and within the UK? Is there a role for Government in promoting either objective (given that airlines will pursue the most commercially attractive option)?
- e) Within the existing capacity constraints, how can the interests of UK consumers be best advanced?

Consumer issues

- a) In protecting consumer interests, where should we strike the balance between regulation and voluntary action by the industry?
- b) What changes, if any, should we make to airline conditions of carriage to bring them up to levels which meet present day consumer expectations?
- c) Should further comparative airline information be made available in the UK including perhaps environmental information? If so, by whom?
- d) Does the current fare regulation protect consumers and airlines adequately? If not, how should we revise it?
- e) Are consumers' interests adequately protected by the application of competition law to code-sharing, franchising and other commercial arrangements between airlines? If not, what further steps should we take?
- f) Do we need further action to ensure consumers are adequately protected when buying airline tickets directly from airlines?
- g) Do we need further action to combat disruptive behaviour on board aircraft, and if so, what? For example, should passengers be prohibited from drinking alcohol other than that supplied by the carrier?
- h) How should any health risks associated with flying be tackled?
- i) Should we set up a statutory consumer body for air transport, as in some other industries? If so, how should it be organised and financed, and what should be its duties?

Economic effects

- a) Is there any evidence of negative economic effects associated with the development and operation of airports?
- b) Do you agree that good air transport links to and from regional airports encourage regional economic growth? What might be done to promote them?
- c) Should we encourage maintenance operations to shift to regional airports?

Environmental effects

- a) To what extent should the Government rely on regulation to influence noise, emissions and other environmental effects of aviation, and to what extent are economic instruments or voluntary agreements more appropriate?
- b) To what extent should there be a national framework for the assessment and mitigation of noise and local environmental effects at airports and to what extent should the details be decided locally? For example, should limits for aircraft noise and/or emissions be set around airports (where they do not already exist)?
- c) If economic instruments were used to reflect the polluter pays principle, should such instruments be varied in relation to the sensitivity of location or operating time (for example for night flights)?
- d) Is a balance between mitigation and compensation the best approach for local impacts? Are there further steps the Government could take to mitigate the environmental effects of aviation?
- e) In the long term, where should the UK concentrate its efforts in international negotiations on environmental impacts?
- f) What more could be done to encourage further development of future technologies in this field?

Airport capacity

- a) Would it be desirable to implement new policies in order to make best use of airport capacity? If so, what policies should be implemented?
- b) Should the slot allocation regime be adjusted to take environmental considerations into account?
- c) What are the arguments for and against raising the cost of using airports where demand exceeds capacity?
- d) How can future technologies to reduce capacity constraints at existing airports best be used? How can the Government and the aviation industry encourage the development of such technologies?

Airport competition and ownership

- a) Does the current economic regulatory regime for airports properly safeguard against abuse of position? Does it provide the right signals to the airport about timely investment? How might it be improved?

Airport planning

- a) Do you consider that the guidance in PPG24 on noise sensitive development near airports is easy to understand and interpret? Has the guidance achieved its objectives?

- b) Could the concept of environmental capacity limits be applied successfully to UK airports? How would limits be set? Would these be alongside or instead of limits on passenger throughput?
- c) Would it be useful to update and reissue the guidance on the operation of airport consultative committees? Would it be desirable to include representation of regional interests on committees at larger airports?
- d) Should the Government encourage a system of voluntary environmental agreements between airports, airport users and local interests, which could provide an agreed framework for development and complement the statutory role of the planning system?
- e) How should people best be compensated for the environmental impact of airports on their local area? Should the Government encourage greater use of voluntary arrangements to compensate for, or mitigate the effects of, significant airport development?

Integrated transport

- a) Is there anything further that the Government or the aviation industry can do to encourage increased public transport use to access airports, and to encourage greater use of airports as inter-modal hubs connecting different forms of transport?
- b) Should surface access connections to airports be regarded as essential components of airport development and approval for any new capacity be made conditional on appropriate connections being provided?
- c) What are the best mechanisms for bringing together the various interested agencies in order to establish the best surface access connections?
- d) What are the likely costs and benefits of substitution between short haul air travel and rail, for example between London and major regional centres? If the benefits outweighed the costs what could the Government do to encourage substitution?

Airspace

- a) How might EUROCONTROL, the EU, the CAA and NATS ensure that, if necessary, additional (i) airspace capacity; and (ii) air traffic service capacity, is created? How could the costs of this, both economic and environmental, be minimised?
- b) How might Europe's air traffic services be liberalised?
- c) Are we striking the right balance in the allocation of airspace between different classes of user? What changes, if any, might help in the future?
- d) How should research and development efforts into new technology in air traffic management be stimulated and funded? Should the Government help to secure implementation of such technologies?

Airlines

- a) In the light of increasing globalisation of the aviation industry, how should the UK's approach to alliances, codesharing and franchising meet the objectives of sustainable development?
- b) Are there particular features of the analysis of competition in the airline industry which might differentiate it from other industries?

c) Should the UK press within the EU for a change in Community policy on ownership and control of airlines?

d) Is there a case for further liberalisation of cargo services? If so, what form should it take and what are the main considerations?

e) In what circumstances should we consider negotiations between major aviation blocs (such as EC/US) or full inclusion of aviation in GATS?

Air freight

a) Should the Government encourage the development of dedicated freight airports?

b) What action might be taken to reduce the specific environmental costs attached to the structure and operation of the air cargo industry? What role could rail play in the movement of freight to, from, or between airports? How could the Government promote the transfer of goods to airports by rail?

c) Is there more the Government could do to make the UK air freight industry more competitive, efficient and responsive to the needs of its customers?

General aviation

a) Should Government policy on general aviation build upon PPG13, perhaps with stronger guidelines about what should constitute suitable facilities for general aviation?

b) Will it be possible to allow business aviation access to major airports where there is a pressing need to make the most efficient use of limited capacity?

Annex B: Glossary

AMS	Arrivals Management System
ANIS	Aircraft Noise Index Study
ANMAC	Aircraft Noise Monitoring Advisory Committee
APD	Air Passenger Duty
AONB	Area of Outstanding Natural Beauty
ASAS	Airport Surface Access Strategy
ATC	Air Traffic Control
ATF	Airport Transport Forum
ATM	Air Transport Movement
ATOL	Air Transport Organisers License
AUC	Air Transport Users Council
BA	British Airways
CAA	Civil Aviation Authority
CAEP	Committee on Aviation Environmental Protection
CO ₂	Carbon dioxide
CRS	Computerised Reservation System
DAP	Director of Airspace Policy
DETR	Department of Environment, Transport and the Regions
DMS	Departures Management System
DOH	Department of Health
DORA	Department of Operational Research and Analysis
DTI	Department of Trade and Industry
EC	European Commission
ECAC	European Civil Aviation Conference
EEA	European Economic Area
EMAS	Eco-Management and Audit Scheme
ETRAC	Environment, Transport and Regional Affairs Select Committee
EU	European Union
FTA	Fair Trading Act
FUAC	Flexible use of Airspace Concept
GA	General Aviation

GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GPS	Global Positioning System
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organisation for Standardisation
JAA	Joint Aviation Authorities
NATS	National Air Traffic Services
NO ²	Nitrogen dioxide
NO _x	Nitrogen oxides
OEF	Oxford Economic Forecasting
PM ₁₀	Particulate matter which passes through a size-selective inlet with a 50 percent efficiency cut-off at 10mm aerodynamic diameter
PPG	Planning Policy Guidance
PPP	Public/Private Partnership
PSO	Public Service Obligation
PSZ	Public Safety Zone
RAF	Royal Air Force
RDA	Regional Development Agency
RPG	Regional Planning Guidance
SAFA	Safety Assessment of Foreign Aircraft
SBAC	Society of British Aerospace Companies
SEDD	Scottish Executive Development Department
SERAS	South East and East of England Regional Air Service Study
SSRA	Shadow Strategic Rail Authority
SSSI	Site of Special Scientific Interest
TCAA	Trans-Atlantic Common Aviation Area
TDR	Traffic Distribution Rule
VHF	Very High Frequency
WHO	World Health Organisation

Annex C: The consultation process

This consultation document has been sent to the organisations listed in annex D as well as a number of individuals who have previously expressed an interest. We will also make it available, on request, to anyone else.

Additional copies are available from Richard Beavis at the address below or by telephoning 020 7944 3896. It is also available on DETRs web site at <http://www.dft.gov.uk>

The deadline for responses is Thursday 12 April 2001.

Please send your responses to:

Mr Richard Beavis
Airports Policy Division
Department of the Environment, Transport and the Regions
Zone 1/28
Great Minster House
76 Marsham Street
London SW1P 4DR

Alternatively, responses can be faxed on 020 7944 2191

In due course, the Department may wish or be asked to copy or disclose responses to others. Please make it clear if you would object to us copying or disclosing your response. We will make your response publicly available unless you ask us not to. All responses will be included in any statistical summary of results, although individuals will not be identified. Names and addresses may be held in an electronic database of interested parties for the purposes of distributing future consultation documents on similar issues. However, any such details on a database will not be given to any third party. If you wish to view individual responses after the consultation period has ended, these will be available for public viewing for a period of six months at the Ashdown House Library and Information Centre. The address is Ashdown House, 123 Victoria Street, London SW1E 6DE. An appointment can be made by telephoning the enquiry desk on 020 7944 3039.

Annex D: Consultation list

Airlines (including representative organisations)

Air 2000
Air France
Air Freight Express
Air Transport Auxiliary Association
Airtours International Airways
American Airlines
Association of Asia Pacific Airlines
Association of European Airlines
Association of International Carriers & Express Services
BAC Express Airlines
Board of Airlines Represented in the UK
Britannia Airways
British Air Transport Association
British Airways
British Cargo Airline Alliance
British Midland
British Regional Airlines
Continental Airlines
Delta Airlines
DHL Airways
Eastern Airways
Easyjet Airline
European Regions Airline Association
FedEx
Flying Colours
GO
Heavy Lift Cargo Airlines
KLM Royal Dutch Airlines
KLM UK
Lufthansa
Monarch Airlines
Peach Air
Ryanair
Sabena
Scot Airways
United Airlines
UPS Airlines
US Airways
Virgin Atlantic
Virgin Express

Aerodromes (including representative organisations)

Aberdeen Airport Ltd
Airport Operators Association

BAA plc
Belfast City Airport
Belfast International Airport
Biggin Hill Aerodrome
Birmingham International Airport
Blackbushe Aerodrome
Blackpool Airport
Bournemouth (Hurn) Airport
Bristol (Filton) Airport
Bristol International Airport
Caernarfon Air Park
Cambridge Airport
Cardiff Airport
Carlisle Airport
Chichester (Goodwood) Airport
City of Derry Airport
Coventry Airport
Denham Aerodrome
Dundee Airport
East Midlands International Airport
Edinburgh Airport
Elstree Aerodrome
Enniskillen Airport
Exeter Airport
Fairoaks Airport
Farnborough Airport
Glasgow International Airport
Glasgow Prestwick International Airport
Gloucestershire Airport
Guernsey Airport
Hawarden Airport
Headcorn/Lashenden Aerodrome
Highlands & Islands Airports Ltd
Humberside International Airport
Inverness (Dalcross) Airport
Jersey Airport
Lands End Airport
Leeds Bradford Airport
Liverpool Airport
London City Airport
London Gatwick Airport
London Heathrow Airport
London Luton Airport
London Stansted Airport
Lydd (Ashford) Airport
Manchester Airport plc
Manston (Kent International) Airport
Newcastle International Airport
North Weald Airfield
Northolt Aerodrome

Norwich Airport Ltd
Old Sarum Airfield
Oxford (Kidlington) Airport
Parranporth Airfield
Perth Airport
Plymouth (City) Airport Ltd
Redhill Aerodrome Ltd
Regional Airports Ltd
Rochester Airport
Scottish Airports Limited
Sheffield City Airport
Shetland Islands (Sumburgh) Airport
Shoreham Joint Municipal Airport
Southampton International Airport
Southend Airport
Sywell Aerodrome
Swansea Airport
Teesside International Airport
Wellesbourne Mountford Airport
White Waltham Airfield Ltd
Withybush Airport
Wolverhampton International Airport
Wycombe Air Park

Airport consultative committees

Aberdeen Airport Consultative Committee
Belfast City Airport Forum
Biggin Hill Airport Consultative Committee
Birmingham International Airport
Consultative Committee
Blackbushe Airport Consultative Committee
Blackpool Airport Consultative Committee
Bournemouth Airport Consultative Committee
Bristol (Filton) Airport Consultative Committee
Bristol (International) Airport Consultative Committee
Cambridge Airport Consultative Committee
Cardiff Airport Consultative Committee
Carlisle Airport Consultative Committee
Chichester (Goodwood) Airport
Consultative Committee
City of Derry Airport Air Transport Group
Coventry Airport Consultative Committee
Denham Aerodrome Consultative Committee
East Midlands Airport Consultative Committee
Edinburgh Airport Consultative Committee
Elstree Aerodrome Consultative Committee
Exeter Airport Consultative Committee
Fairoaks Airport Consultative Committee
Gatwick Airport Consultative Committee

Glasgow Airport Consultative Committee
Gloucestershire Airport Consultative Committee
Headcorn/Lashenden Aerodrome Consultative Committee
Heathrow Airport Consultative Committee
Humberside Airport Consultative Committee
Inverness Airport Consultative Committee
Kent International Airport Consultative Committee
Leeds/Bradford Airport Consultative Committee
Liaison Group of Consultative Committee Chairmen
Liverpool Airport Consultative Committee
London City Airport Consultative Committee
London Luton Airport Consultative Committee
Lydd Airport Consultative Committee
Manchester Airport Consultative Committee
Newcastle Airport Consultative Committee
Norwich Airport Consultative Committee
Oxford Airport Consultative Committee
Perth Airport Consultative Committee
Plymouth (City) Airport Consultative Committee
Prestwick Airport Consultative Committee
Redhill Aerodrome Consultative Committee
Rochester Airport Consultative Committee
Shoreham Airport Consultative Committee
Southampton Airport Consultative Committee
Southend Airport Consultative Committee
Stansted Airport Consultative Committee
Sumburgh Airport Consultative Committee
Sywell Aerodrome Consultative Committee
Teesside Airport Consultative Committee
Wolverhampton International Airport Consultative Committee
Wycombe Air Park Consultative Committee

Airport users (other than airlines)

Air Transport Users Council
Aircraft Owners & Pilots Association
Bond Helicopters Ltd
British Aerobatic Association
British Airline Pilots Association
British Balloon & Airship Club
British Gliding Association
British Hang Gliding & Paragliding Association
British Helicopter Advisory Board
British International Helicopters
British Microlight Aircraft Association
British Parachute Association
Business Aircraft Users Association
Guild of Air Pilots & Air Navigators of London
Helicopter Club of Great Britain
Popular Flying Association

Royal Aero Club of the UK
Royal Institute of Navigation
Sloane Helicopters
Society of British Aerospace Companies Ltd

Related organisations (other than already categorised)

A & G Aviation Ltd
Automobile Association
Aeronautical Information Service
Air Law Committee Group
Arbitration for Commerce & Industry
Arriva
Association of British Travel Agents
Association of Noise Consultants
Association of Train Operating Companies
BAE Systems
British Chambers of Commerce
British Incoming Tour Operators
Association
British Shippers Council
British Tourist Authority
Business Link Network Company
Centre for Business Arbitration
Chartered Institute of Arbitration
Chartered Institute of Transport
Chester Aviation Ltd
Civil Aviation Authority
Colt Group Ltd
Commission for Integrated Transport
Confederation of British Industry
Confederation of British Industry (Northern Ireland)
Confederation of British Industry (Scotland)
Confederation of British Industry (Wales)
Confederation of Passenger Transport
Council for Travel & Tourism
Cumbria Tourist Board
Disabled Persons Transport Advisory Committee
East of England Tourist Board
English Heritage
English Tourism Council
Formula Air Racing Association
Freight Transport Association
General Aviation Awareness Council
General Aviation Manufacturers & Traders Association
General Aviation Safety Council
General Consumer Council
GKN Westland Helicopters Limited
GMB
Guild of Air Pilots & Air Navigators of London
Guild of Air Traffic Control Officers

Guild of Business Travel Agents
Health & Safety Commission
Health Development Agency
Heart of England Tourist Board
IDS Aircraft Ltd
Institute of Directors
Institute of Logistics & Transport
Institute of Management
Institute for Public Policy Research
Institution of Civil Engineers
International Air Transport Association
International Chambers of Commerce UK National Committee
International Civil Aviation Organisation
International Transport Workers Federation
Law Society
Law Society of Scotland
Leyline Helicopters Ltd
London Tourist Board
Marshall (Engineering) Ltd
National Air Traffic Services
National Consumer Council
National Express
National Federation of Consumer Groups
North West Tourist Board
Northern Ireland Chamber of Commerce & Industry
Olivetti Research
Parliamentary Office of Science & Technology
Peel Airports Ltd
Planning Officers Society
RAC
Railtrack
Railway Users Consultative Committee
Road Haulage Association
Rollaston Aircraft & Engines Ltd
Rolls Royce International Ltd
Royal Aeronautical Society
Royal Incorporation of Architects in Scotland
Royal Institute of British Architects
Royal Institution of Chartered Surveyors
Royal Mail
Royal Society for the Prevention of Accidents
Royal Society of Ulster Architects
Royal Town Planning Institute
Scottish Chamber of Commerce
South East England Tourist Board
Southern Tourist Board
Sport Council for Wales
Sport England
Sport Scotland
Sports Council for Northern Ireland

Sustainable Development Commission
Sustainable Cities & Aviation Network
UK
Sustrans
T&G
TEC National Council
Tiger Club 1990 Ltd
Town & Country Planning Association
Trade Union Congress
Trade Union Sustainable Development
Advisory Committee
Transport Planning Society
Unison
Wales Tourist Board
West Country Tourist Board
Yorkshire Tourist Board

Environmental & residential associations

Action for Communities in Rural England
Advisory Committee on Business and the Environment
Airfields Environment Trust
Airport Pressure Group
Association of National Park Authorities
Aviation Environment Federation
Barnes Community Association
Booker Common & Woods Protection Society
Campaign Against Crowfield Aerodrome
Chartered Institute of Environmental Health
Chiltern Society
Chislehurst Society
Colnbrook Residents Association
Council for the Protection of Rural England
Country Landowners Association
Countryside Agency
Countryside Council for Wales
Coventry & Warwickshire Airport Action Group
Denham Airfield Environment Federation
Ealing Aircraft Noise Action Group
English Nature
Environmental Law Foundation
Federation of Airport Noise Groups
Friends of the Earth
Friends of the Earth Scotland
Gatwick Area Conservation Campaign
HACAN/Clear Skies
Hampton-in-Arden Society
Heald Green & Long Lane Ratepayers Association
Heston Residents Association
Lake District National Park

Leeds Bradford Association for the Control of Aircraft Noise
London Rivers Association
Manchester Airport Environment Network
National Society for Clean Air & Environmental Protection
National Trust
National Trust Scotland
Noise Abatement Society
Noise Network
North West Essex & East Herts Preservation Association
Northumberland National Park Authority
Nutfield Conservation Society
Oxford Airport Noise Abatement Group
Parmoor Protection League
People Against Intrusive Noise
Royal Commission on Environmental Pollution
Royal Environmental Health Institute of Scotland
Royal Society for the Protection of Birds
Scottish Natural Heritage
Transform Scotland
Transport 2000
UK Environmental Law Association
United Kingdom Noise Association
Waterfront Partnership
Weald of Kent Preservation Society
World Wildlife Fund UK

Regional & local government related organisations

Advantage West Midlands
Association of Local Authorities of Northern Ireland
Association of North East Councils
Association of Transport Co-ordinating Officers Cymru
Consortium of Parish Councils
Convention of Scottish Local Authorities
East Midlands Development Agency
East Midlands Regional Cultural Consortium
East of England Development Agency
East of England Local Government Conference
East of England Regional Cultural Consortium
Eastern NHS Executive
Greater London Authority
Local Authorities Aircraft Noise Council
Local Government Association Strategic Aviation Special Interest Group
London Development Agency
London NHS Executive
National Association of Local Councils
North East Regional Cultural Consortium
North West Development Agency
North West NHS Executive

North West Regional Assembly
Northern & Yorkshire NHS Executive
One North East
Regional Assembly for Yorkshire and Humberside
Regional Planning Forum for Yorkshire and Humberside
Scottish Enterprise
Scottish Local Government Information Unit
SERPLAN
South & West NHS Executive
South East England Regional Assembly
South East England Regional Development Agency
South East NHS Executive
South East Regional Cultural Consortium
South West of England Regional
Development Agency
South West Regional Assembly
South West Regional Cultural Consortium
Standing Conference of East Anglian Local Authorities
Trent NHS Executive
Welsh Consumer Council
Welsh Development Agency
West Midlands Local Government Association
West Midlands NHS Executive
West Midlands Regional Cultural Consortium
Yorkshire & the Humber Regional Cultural Consortium
Yorkshire Forward

Parliamentary Spokespersons

Lord Brazabon of Tara
(Opposition Spokesperson on Transport in the House of Lords)

The Hon. Gwyneth Dunwoody MP
(Chair of House of Commons Environment, Transport & Regional Affairs
Select Committee)

The Hon. Bernard Jenkin MP
(Opposition Spokesman on Transport in the House of Commons)

Simon Thomas MP
(Plaid Cymru Spokesperson on Transport in the House of Commons)

Michael Moore MP
(Liberal Democrat Spokesperson on Transport in the House of Commons)

Alasdair Morgan MP
(Scottish National Party Spokesperson on Transport in the House of Commons)

Baroness Thomas of Walliswood
(Liberal Democrat Spokesperson on Transport in the House of Lords)

In addition, a copy of this paper is being sent to all local authorities in England, Wales and Northern Ireland, parish and town councils surrounding airports listed and to individuals who have recently expressed an interest in the issues raised.

