Department for Transport

Draft Aviation Policy Framework

July 2012

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Foreword

In March 2011, the Government launched a scoping exercise towards developing a new sustainable policy framework for UK aviation. We invited those who understand the benefits and impacts of aviation to respond to a series of strategic questions and I am grateful to the more than 600 organisations and individuals who did so.

While discussion remains about precisely how much aviation contributes to the economy, the responses to the scoping document showed that there was broad agreement that aviation does provide significant economic and other benefits; there was wide recognition of aviation's global and local environmental impacts and agreement that these must be tackled effectively; and the importance of maintaining the UK's excellent international connectivity was widely recognised, although there was a range of views as to how this should be achieved.

The main issue of contention remains airport, and particularly runway capacity. Some argue that new capacity is needed immediately, particularly in the South East. Others see no need for additional capacity, either now or in the longer term. These positions are incompatible and experience with previous proposals for a third runway at Heathrow demonstrates that without sufficient support, particularly at a political level, it would not be possible for any government to deliver new capacity, however hard some shout for it. It is also clear that any decisions on additional capacity would probably not deliver operational results before 2020, so in the short term at least we must make the best use of the capacity we have.

The Government's vision is for dynamic, sustainable transport that drives economic growth and competitiveness. We are securing investment to provide world class national and international connectivity; harnessing technology to

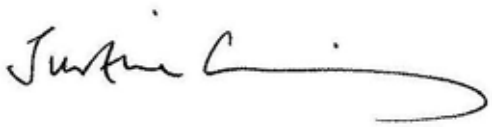
ensure our transport system is smart and sustainable and ready for the future; and putting the customer and businesses at the heart of transport.
The Government is determined to make progress towards a solution for aviation which meets the UK's medium and longer term connectivity needs, which can secure the broad support needed to be achievable. As the Coalition Agreement promised, the Government has cancelled plans for a third runway at Heathrow, but, as our National Infrastructure Plan last year made clear, one of our top priorities is to maintain the UK's aviation hub status. We therefore intend to issue a Call for Evidence on maintaining the UK's international aviation connectivity later this year. Over the decades, successive governments have failed to find a sustainable solution because they have not been ambitious enough or sought consensus on what the UK needs in the long term. By starting to consult on this framework first, we are encouraging stakeholders to consider the 'big picture' before putting forward any proposals for new capacity.

It is clear that any solution will have to be genuinely sustainable. It would need to fit within the high-level policies set out in the Government's strategic aviation policy framework, which is the subject of this consultation document. We are seeking views on our overall policy and on specific proposals that could support the delivery of that policy.

A better balance than in the past needs to be struck between the benefits aviation undoubtedly brings and its impacts, both at a global and at a local level. This will require much better engagement between airports and local communities, with greater transparency to facilitate informed debate and help to build mutual trust. This is one of the key themes running through our draft framework and the Government is encouraged that some airports are already working to improve local engagement. Nevertheless more needs to be done.

The way ahead will undoubtedly be challenging but the Government believes that aviation needs to grow sustainably, delivering the benefits essential to our economic well-being whilst respecting the environment and protecting quality of life.

In that spirit, the Government welcomes responses to this consultation. It remains our intention to finalise this framework by March 2013.



The Rt Hon Justine Greening MP
Secretary of State for Transport

Chapter 1: Executive summary

A sustainable approach to aviation

1.1 The Government's primary objective is to achieve long term economic growth. The aviation sector is a major contributor to the economy and we support its growth within a framework which maintains a balance between the benefits of aviation and its costs, particularly climate change and noise.

1.2 This is especially important for those who live close to airports and bear a particular burden of the costs. We therefore want to strengthen the arrangements for involving communities near airports in decisions which affect them.

1.3 It is equally important that the aviation industry has confidence that the framework is sufficiently stable to underpin long term planning and investment in aircraft and infrastructure.

1.4 This consultation document is the Government's draft sustainable framework for UK aviation (referred to as the Aviation Policy Framework). It has been informed by the over 600 responses we received to our scoping document.[1] It sets out our overall objectives for aviation, discusses how existing policies and additional policy options can achieve those objectives and seeks responses to specific policy questions. It is underpinned by two core principles:

- Collaboration: By working together with industry, regulators, experts, local communities and others at all levels: international, national and local. We believe we will be better able to identify workable solutions to challenges and share the benefits of aviation in a fairer way than in the past.
- Transparency: To facilitate improved collaboration, it is crucial to have clear and independent information and processes in place. Those involved in and affected by aviation need to have a clearer understanding of the facts and the confidence that proportionate action will be taken at the international, national or local level.

[1] *Developing a sustainable framework for UK aviation: Scoping document*, DfT, March 2011, http://assets.dft.gov.uk/consultations/dft-2011-09/consultationdocument.pdf

1.5 The final Aviation Policy Framework will be a high-level strategy that sets out our overall objectives for aviation and the policies we will use to achieve those objectives.

1.6 We summarise below the main elements of our Aviation Policy Framework which are covered in more detail in individual chapters.

The benefits of aviation

1.7 Chapter 2 of this document summarises aviation's benefits, particularly in helping to deliver connectivity. The UK is an outward looking nation: an island economy that for centuries has owed its prosperity to the transport and trade routes linking it with the rest of the world. With the increasing globalisation of our economy and society, the future of the UK will continue to be shaped by the effectiveness of its international transport networks.

1.8 Aviation benefits the UK economy through its direct contribution to Gross Domestic Product (GDP) and employment, and by facilitating trade and investment, manufacturing supply chains, skills development and tourism. The whole UK aviation sector's turnover in 2009 was around £49 billion and it generated around £17 billion of economic output. The sector employs over 220,000 workers directly and supports many more indirectly. Aviation also brings many wider benefits to society and individuals, including travel for leisure and visiting family and friends.

1.9 Aviation in the UK is largely privatised and operates in a competitive international market. The Government supports competition as an effective way to meet the interests of air passengers and other users. We also welcome the continued significant levels of private sector investment in airport infrastructure across the country and the establishment of new routes to developed and emerging markets. For example, a new Air China service between Gatwick and Beijing began in May 2012 and a China Southern service between Heathrow and Guangzhou began in June 2012: very important developments which clearly show that there is the potential for UK airports to attract new routes.

1.10 **One of our main objectives is to ensure that the UK's air links continue to make it one of the best connected countries in the world. This includes increasing our links to emerging markets so that the UK can compete successfully for economic growth opportunities.** To achieve this objective, we believe that it is important both to maintain the UK's aviation hub capability and develop links from airports which provide point-to-point services (i.e. carrying no or very few transfer passengers). This must be done in a sustainable way, consistent with the high-level policies set out in this document.

1.11 In the short term, to around 2020, a key priority is to work with the aviation industry and other stakeholders to make much better use of existing runway capacity at all UK airports. We are pursuing a suite of measures to improve performance, resilience and the passenger experience; encourage new routes and services; support airports in Northern Ireland, Scotland, Wales and regional airports in England; and ensure that airports are better integrated into our wider transport network.

1.12 In the medium and long term beyond 2020 we recognise that there will be a capacity challenge at the biggest airports in the South East of England. Responses to the scoping document demonstrate a broad consensus on the importance of maintaining the UK's excellent connectivity, over the long term, but there was no agreement on how to do this. Although it was not the purpose of the scoping document, some respondents put forward airport-specific suggestions for addressing their view of the capacity challenge. However, these suggestions were not supported by sufficient details on key factors such as environmental sustainability and commercial viability. We need a strong basis of evidence before we can make decisions on specific solutions.

1.13 That is why we stated last November[2] that we would explore the options for maintaining the UK's aviation hub status. We intend to explore this through a Call for Evidence on maintaining the UK's international aviation connectivity with a focus on the medium and longer term. We intend to publish this later this year once stakeholders have had a chance to consider this draft framework.

Managing aviation's environmental impacts

1.14 Aviation's environmental impacts are both global (climate change) and local (primarily noise, as well as air pollution and congestion). Chapter 3 covers aviation's climate change impacts. **Our objective is to ensure that the aviation sector makes a significant and cost effective contribution towards reducing global emissions.**

1.15 Aviation is an international sector, and global action to address a global challenge is therefore essential if we are to achieve progress on reducing its climate change impacts while avoiding competitive disadvantage to the UK. National governments have a particularly important role in pushing for effective international action. We are therefore committed to making progress through the International Civil Aviation Organisation (ICAO), the specialised agency of the United Nations which regulates international civil aviation, on a global emissions deal and more ambitious technology standards. We also

[2] *National Infrastructure Plan,* HM Treasury - Infrastructure UK, November 2011, http://cdn.hm-treasury.gov.uk/national_infrastructure_plan291111.pdf

continue to work hard with our European Union (EU) partners to ensure the success of the inclusion of aviation in the EU Emissions Trading System (ETS).

1.16 At the national level, particularly in the context of the Climate Change Act,[3] we will consider, based on advice from the Committee on Climate Change (CCC) and the best available evidence, taking unilateral action to deliver our objectives, where such action is consistent with our existing international legal obligations.

1.17 Chapter 4 covers noise and other local environmental impacts. **Our overall objective is to aim to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise.** To achieve this, we want to incentivise noise reduction and mitigation, and we also want to encourage better engagement between airports and local communities and greater transparency to facilitate an informed debate. In particular, we want independent and transparent monitoring and enforcement, realistic noise limits linked to penalties which incentivise noise reduction and reflect the severity of noise disturbance and effective use of non-regulatory instruments such as differential landing fees.

1.18 For aviation's other local environmental impacts, such as air pollution, our overall objective is to ensure appropriate health protection by focusing on meeting relevant legal obligations.

1.19 Chapter 5 focuses on the theme of working in partnership, particularly at a local level. It covers Airport Consultative Committees (ACCs), airport master plans and Airport Transport Forums (ATFs). **Our objective is to encourage the aviation industry and local stakeholders to strengthen and streamline the way in which they work together.**

Other aviation objectives

1.20 This Aviation Policy Framework focuses on the benefits of aviation and its environmental impacts, as responses to the scoping document confirmed that these were the priority areas that needed to be addressed. The following paragraphs summarise the Government's other high-level policy objectives for aviation, which support and are consistent with this Framework but are being taken forward separately.

Competition and regulation policy

1.21 We believe that the role of the Government should be largely confined to facilitating a competitive aviation market within a proportionate

[3] Climate Change Act 2008: http://www.legislation.gov.uk/ukpga/2008/27/contents

international and domestic regulatory framework to ensure a level playing field and the maintenance of high standards of safety and security. We will continue to work with the EU on regulatory proposals to promote and protect UK interests. We are also committed to reducing unnecessary domestic regulation, and recently launched the *Red Tape Challenge* for aviation.[4]

1.22 The Civil Aviation Bill currently going through Parliament will modernise the economic regulatory regime for airports and replace the current economic regulation duties of the Civil Aviation Authority (CAA) with a single primary duty to promote the interests of users of air transport services (i.e. current and future passengers and owners of cargo). It will also give the CAA more flexibility to regulate airports deemed to have substantial market power, encourage investment in airport facilities and provide passengers and other airport users with more information about airline and airport performance. The Bill also proposes to confer certain aviation security functions on the CAA, and would allow reform of the Air Travel Organisers' Licensing (ATOL) scheme to provide greater clarity for consumers and a more consistent regulatory framework for businesses.

Airspace

1.23 The Government remains a strong supporter of the Single European Sky (SES) initiative, which has the potential to deliver real benefits in terms of tackling delays and reducing fuel consumption and emissions, therefore contributing directly to our aviation objectives. We also support the development of the CAA's Future Airspace Strategy (FAS),[5] which is considering strategic airspace issues for the UK over the medium and long term with the overall aim of modernising the UK's airspace system in the context of SES objectives. The implementation of the FAS can also play a significant role in delivering our economic and environmental objectives in relation to aviation, for example by improving our use of capacity and providing opportunities to improve fuel efficiency.

Safety

1.24 Air transport is one of the safest forms of travel and the UK is a world leader in aviation safety. Maintaining and improving that record, while ensuring that regulation is proportionate and cost-effective, remains of primary importance to the UK. Since 2003, rules and standards for aviation safety in Europe have increasingly been set by the European Aviation Safety Agency (EASA). The UK will continue to work closely

[4] The *Red Tape Challenge* for aviation started on 21 June 2012. The *Red Tape Challenge* is an initiative to open up regulation to public and stakeholder scrutiny, and consider which regulations should be retained, amended or abolished. More information can be found at http://www.redtapechallenge.cabinetoffice.gov.uk/home/index

[5] *Future Airspace Strategy,* CAA, June 2011, http://www.caa.co.uk/docs/2065/20110630FAS.pdf

with EASA to ensure that a high and uniform level of civil aviation safety is maintained across Europe. In 2009, the UK was one of the first countries to publish a State Safety Programme, in line with new ICAO standards. The CAA published its own Safety Plan[6] in 2011 outlining the additional action it will be taking to improve UK aviation safety performance out to 2013.

Security

1.25 The threat to UK aviation remains high. To keep pace with the rapidly changing nature of the threat, the Government is seeking to move to an outcome-focused, risk-based regime for aviation security regulation, modelled on the Safety Management System approach already in widespread use by the aviation industry and its safety regulators. We believe this will provide even better aviation security by enabling more responsive and flexible approaches to new and emerging threats. It should also provide the industry with greater scope for innovation and efficiency in delivering security processes, potentially enabling security outcomes to be delivered in more passenger-friendly way.

Timings and process

1.26 We recognise the importance of setting out a clear and structured approach to developing this Aviation Policy Framework. Following this consultation, we intend to adopt the Framework by March 2013. More details on how to respond to this consultation are set out below.

1.27 Alongside this consultation, we are publishing a summary of responses to the scoping document and a draft impact assessment of the Aviation Policy Framework, which will be developed further in the light of responses to this consultation.

How to respond to this consultation

1.28 The deadline for responses to this consultation is 31 October 2012. Response forms are available on the Department for Transport (DfT) website at http://www.dft.gov.uk/consultations/dft-2012-35 and any inquiries should be sent to aviation.policyframework@dft.gov.uk or

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[6] *Safety Plan 2011-2013*, CAA, 2011, http://www.caa.co.uk/docs/978/CAA_Safety_Plan_2011.pdf

1.29 We will be holding consultation events in the coming months. Details will be posted on the DfT website.

1.30 Please note that we will make every effort to ensure that late responses and responses that fall outside the scope of this consultation are read, but these responses may not be taken into account in the publication of results and any final decisions.

Data protection and freedom of information

1.31 Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004).

1.32 If you want information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

1.33 In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

1.34 The Department will process your personal data in accordance with the DPA and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

Code of practice on consultations

1.35 The Government has adopted a code of practice on consultations. This code sets out the approach the Government takes to formal consultation. A full version of the code of practice is available on the Better Regulation Executive website at: http://www.bis.gov.uk/files/file47158.pdf

1.36 If you consider that this consultation does not comply with the criteria or have comments about the consultation process please contact:

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Chapter 2: The benefits of aviation

Aviation's contribution to the UK economy

2.1 Responses to the scoping document showed broad agreement that aviation benefits the UK economy, both at a national and a regional level. Responses quoted different numbers depending on the assumptions and definitions used, but they clearly demonstrated that the economic benefits are significant, particularly those benefits resulting from the connectivity provided by aviation. Responses also referred to the social and cultural benefits from aviation. This chapter summarises the main benefits identified.

Gross domestic product and jobs

2.2 The air transport sector's turnover is around £26 billion, and the sector directly generates around £9 billion of economic output. It provides about 120,000 jobs in the UK and supports many more indirectly.[7] These figures do not include the aerospace sector, which is covered below.

2.3 The economic importance of the aviation sector extends beyond its direct contribution to UK GDP and employment, as an enabler of activity in many other sectors of the economy. These include business services and also financial services where the UK enjoys a significant comparative advantage.

Imports and exports

2.4 Goods worth £116 billion are shipped by air freight between the UK and non-EU countries representing 35 per cent of the UK's extra-EU trade by value.[8] The volume of air freight imported is greater than that exported: in 2011 imports accounted for 53 per cent and exports accounted for 47 per cent of the total. In terms of total tonnage, one million tonnes were exported and nearly 1.2 million tonnes were

[7] Turnover, economic output (GVA) and employment figures are from *Annual Business Survey,* ONS, 2009, http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-249520, Section H: Transport and Storage, adding SIC 51 (air transport) and SIC 52.23 (service activities incidental to air transportation).
[8] *CHIEF Non-EU data*, HMRC, 2011(provisional data), https://www.uktradeinfo.com

imported.[9] This split is broadly consistent with UK trade as a whole, which saw imports account for 57 per cent of total trade in 2011.[10] Although air freight carries a small proportion of UK trade by weight, it is particularly important for supporting export-led growth in sectors where the goods are of high value or time critical. Air freight is a key element of the supply chain in the advanced manufacturing sector in which the UK is looking to build competitive strength.

Manufacturing, skills and technology

2.5 The UK aerospace industry is another important part of our advanced manufacturing sector, contributing towards rebalancing the economy to become less dependent on financial services. The UK has the second biggest aerospace industry in the world in terms of turnover, and is one of only a few countries involved in the design, development, manufacture and maintenance of the full range of aircraft products. The sector has an annual turnover of around £23 billion[11] of which 70 per cent is exported.[12] It directly employs around 100,000 highly skilled workers and supports many more jobs indirectly.[13]

2.6 The General and Business Aviation (GA) sector covers a wide range of activities, from corporate business jets and commercial helicopter operations through to recreational flying in small private aircraft, including gliders. Its contribution to the UK economy has been estimated at £1.4 billion per annum.[14] The sector also delivers important services, including search and rescue, mail delivery, life-saving (organ) transport, law enforcement, aerial survey and environmental protection flights, as well as underpinning the training of future pilots, ground-based aircraft engineers and technicians. Most flying training schools are based at predominantly GA aerodromes. The European Parliament has also acknowledged the sector's specific social and economic benefits[15] and its growing economic importance, particularly for the European manufacturing industry.

2.7 New and emerging technologies, such as Unmanned Aerial Vehicles (UAVs), offer significant opportunities in the civil aviation field, for example in oil, gas and mineral exploration, air freight, search and rescue, data gathering and scientific research, as well as opportunities for technology transfer to the wider aviation sector.

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[9] *Airport statistics,* CAA, 2011, http://www.caa.co.uk/default.aspx?catid=80&pagetype=90
[10] *Trade statistics,* HMRC, 2011, https://www.uktradeinfo.com/Statistics/Pages/Statistics.aspx
[11] *UK Aerospace Industry Survey,* Aerospace, Defence, Security Trade Association (ADS), 2010 http://www.adsgroup.org.uk/pages/07003420.asp
[12] *UK Aerospace Industry Survey,* Aerospace, Defence, Security Trade Association (ADS), 2010 http://www.adsgroup.org.uk/pages/07003420.asp
[13] Direct employment figure comes from ADS survey (see footnote 12), http://www.adsgroup.org.uk/pages/07003420.asp.
[14] *Strategic Review of General Aviation,* CAA, 2006. Estimated at approximately £1.4 billion in 2005
[15] European Parliament resolution of 3 February 2009 on an Agenda for Sustainable Future in General and Business Aviation (2008/2134(INI))

Tourism

2.8 The *Government Tourism Policy*[16] promotes domestic tourism for UK residents and supports the growth of the sector's international market, aiming to attract four million extra visitors to England over the next four years, particularly from emerging economies such as China. Similarly ambitious targets have been set by other countries in the UK to increase the number of visitors. Good connectivity from the UK to emerging economies is likely to increase the scope for growth in inbound tourism from these countries in future. Overseas residents made 30 million visits to the UK in 2010, with nearly three-quarters of these visitors arriving by air. Earnings from overseas visits were £17 billion, 83 per cent of which was spent by people who arrived by air.[17]

2.9 UK residents made 56 million visits abroad in 2010 and spent £32 billion, 83 per cent of which was spent by residents who travelled abroad by air.[18] Scoping document responses were divided on the economic impacts of outbound tourism. Some respondents considered that there was a "tourism deficit", as more UK residents travelled abroad than overseas residents travelled to the UK. Other respondents highlighted that outbound tourism supports UK-based jobs in the travel and airline industry and boosts high street consumer demand before trips are made. The latter has been valued at around £27 billion per year.[19] Responses confirmed that the "tourism deficit" question is a complex one and that the evidence available to us does not show that a decrease in the number of UK residents flying abroad for their holidays would benefit overall the UK economy. The chance to fly abroad also offers some quality of life benefits.

Greater productivity and growth

2.10 The UK's aviation sector enables productivity and growth in the following ways:

- enhanced access to markets and new business opportunities through improved connectivity;
- lower transport costs and factors. For example transporting freight by air allows smaller inventory holdings, and the rapid transport of perishable goods leads to increased specialisation. The Organisation for Economic Co-operation and Development (OECD)

[16] *Government Tourism Policy*, DCMS, March 2011, http://www.culture.gov.uk/images/publications/Government2_Tourism_Policy_2011.pdf
[17] *Travel Trends (International Passenger Survey),* ONS, 2010 http://www.ons.gov.uk/ons/rel/ott/travel-trends/2010/travel-trends---2010.pdf
[18] *Travel Trends (International Passenger Survey),* ONS, 2010 http://www.ons.gov.uk/ons/rel/ott/travel-trends/2010/travel-trends---2010.pdf
[19] *The UK Tourism Satellite Account*, ONS, 2008, http://www.ons.gov.uk/ons/rel/tourism/tourism-satellite-account/2008---the-economic-importance-of-tourism/uk-tsa-2008.pdf

notes that 40 per cent of international freight trade by value is accounted for by airlines;[20] and

- facilitating inward investment and the movement of goods, people and ideas both within the UK and to and from the rest of the world thus enhancing trade and the diffusion of knowledge and innovation.

2.11 Some of the main benefits to consumers and businesses from greater investment and effective use of airport infrastructure include:

- reductions in delays and disruption[21] as a result of airport congestion, which affect airlines, passengers and the wider community, and which were noted by the OECD UK Economic Survey in 2009;[22] and
- increased frequency and range of flights to faster growing economies.

Other benefits

2.12 In addition to its economic contribution, aviation provides wider social benefits, enabling UK citizens to experience different cultures or enjoy a well-earned holiday. Visiting friends and family is an increasingly important reason for flying, for example in 2011 it was the most common purpose of travel at Heathrow (36 per cent of trips), Stansted (45 per cent) and Luton (43 per cent).[23]

Connectivity

2.13 As described, aviation significantly benefits the UK not just because it is a successful industry in its own right, but especially because it provides us with excellent access to the rest of the world and brings us closer together within the UK. With the increasing globalisation of our economy and society, the future of the UK will undoubtedly continue to be shaped by the effectiveness of its international transport networks.

2.14 In summary, aviation connectivity is a combination of destinations served and frequency of flights: the broader the range of destinations served and the higher the frequency of flights to and from those

[20] According to Steer, Davies, Gleave (2010) in 2008, goods worth £95 billion were shipped by air freight between the UK and non EU countries, representing 35 per cent of UK's extra-EU trade. Heathrow is the dominant gateway, with 63 per cent of UK air freight volumes and, for non EU trade, 63 per cent of UK air freight value, the vast majority of which is carried in the belly hold of passenger aircraft. Heathrow is also the largest UK port by value for non EU trade, with 24 per cent of the total, similar to the combined total for the country's two principal container ports, Felixstowe and Southampton.
[21] There would also be resilience benefits as there would be more spare capacity with which to recover from any problems (e.g. snow) thus leading to fewer cancelled flights.
[22] *Economic Survey of the United Kingdom*, OECD, 2009, http://www.oecd.org/document/18/0,3343,en_2649_33733_43092599_1_1_1_1,00.html
[23] *CAA Passenger Survey 2011,* http://www.caa.co.uk/default.aspx?catid=80&pagetype=90

destinations, the better connected an airport, city, or country is. The value of connectivity is affected by other characteristics, such as the relative importance of the destinations served, the cost of accessing them, which is the end-to-end journey time and cost including the price of air travel, and the reliability of the services.

2.15 Responses to the scoping document suggest that hub airports play an important role in providing international connectivity, especially to long-haul destinations including emerging economies. Although there is no single agreed definition of a hub airport, a key characteristic of hub airports across the world is that they are able to serve destinations that other airports are not. This is because a hub airport supplements local demand[24] with transfer[25] passengers, providing traffic volumes which support higher frequencies of services on more popular routes, and enabling services on more marginal routes that would not otherwise have proved viable with fewer passengers.

2.16 In our Call for Evidence, which we intend to publish later this year, we will explore in more detail the ways in which connectivity contributes to economic growth, and the characteristics and role of a hub airport.

The UK today

2.17 The UK is currently one of the best connected countries in the world. We are directly connected to over 360 international destinations.[26] Using available airline seat kilometres as a connectivity metric, only China's and the USA's aviation networks are more extensive than the UK's, and Germany and France are in fifth and eighth place respectively.[27]

2.18 The demand for aviation in the UK is concentrated in the South East, a densely populated region whose economy comprises multiple, high value sectors including finance, professional services, technology, media and fashion. This drives the high demand for aviation in the region.

2.19 London is an exceptionally well served capital city: its five airports (Heathrow, Gatwick, Stansted, Luton and London City) together serve more routes than any other European city.[28] Heathrow and Gatwick dominate the long-haul market, accounting for 87 per cent of direct passenger flights from the UK to North America, 99 per cent to Brazil,

[24] Local demand refers to all passengers terminating their air journey at an airport i.e. not connecting passengers.
[25] Transfer passengers are passengers who connect directly between an inbound and an outbound flight, usually within 24 hours.
[26] DfT analysis of CAA statistics. Based on international destinations with at least 52 direct passenger flight departures (i.e. at least a direct weekly service) from at least one UK airport in 2011.
[27] *Global Competiveness Report*, World Economic Forum, 2011-12, http://reports.weforum.org/global-competitiveness-2011-2012. Based on available seat kilometres.
[28] *Aviation Policy for the Consumer* (page 18, Figure 6: CAA analysis of OAG data), CAA, 2011, http://www.caa.co.uk/docs/589/CAA_InsightNote1_Aviation_Policy_For_The_Consumer.pdf

Russia, India and China (BRIC) countries and 78 per cent to the rest of the world (outside Europe).[29]

2.20 Heathrow Airport, as the UK's only international hub airport, has a unique role in supporting the UK's and London's connectivity. Heathrow is by far the UK's largest airport, not only in terms of overall passenger numbers but also in terms of connectivity to long-haul destinations and movement of air freight, which is mainly transported in passenger aircraft.

2.21 Airports in Northern Ireland, Scotland, Wales and regional airports in England also play a very important role in UK connectivity. As well as operating a range of domestic routes, many of which are important for business travellers, they serve an increasing number of routes to mainland Europe. In 2011, nearly 150 destinations in mainland Europe were served by at least one airport outside the South East. Although the long-haul market still accounts for only a small proportion of traffic at airports in Northern Ireland, Scotland, Wales and regional airports in England (three per cent of passenger flights in 2011), many now serve a number of long-haul routes. Over 35 destinations outside Europe have a regular service from at least one airport outside the South East;[30] these are mostly traditional holiday destinations in countries such as Egypt, North America, Morocco and Tunisia but a number of airports outside the South East also offer flights to major world cities such as New York, Dubai, Islamabad and Toronto.

The future

2.22 The UK must be able to connect with the countries and locations that are of most benefit to our economy. This is important in relation both to destinations that fall into that category today and those locations that will become crucial to our country's economic success in the future. While it remains vital for the UK to maintain its connectivity with established markets such as the USA and in Europe, it is also important that we take advantage of the opportunities presented elsewhere to remain competitive in the global economy.

2.23 There has been some increase in direct services from the UK to emerging economies over the last decade: the total number of flights to BRIC countries more than doubled over this period.[31] In 2011 Heathrow served 11 destinations in Brazil, Russia, India and China (BRIC countries) with at least a daily service which compares favourably with its main EU competitors (Frankfurt: 11, Paris CDG: nine, Amsterdam: eight, Madrid: three). It also had more flights in total to BRICs than the other four main European hubs (Charles de Gaulle,

[29] DfT analysis of CAA statistics, 2011
[30] DfT analysis of CAA statistics, 2011
[31] DfT analysis of CAA statistics, 2011

Frankfurt, Madrid and Schiphol), with particularly strong connections to India and Hong Kong.

2.24 Over the past 10 years, the trend at Heathrow has been for profitable routes to be operated at higher frequencies, but with aircraft operators consequently reducing the total number of destinations they serve over time.[32] We will be monitoring this trend with a view to understanding what may happen at other airports.

2.25 However, many responses made clear that there was considerable scope for airports other than Heathrow to develop long-haul services to a broader range of destinations to support the UK's international connectivity.

2.26 One of our main aviation objectives is **to ensure that the UK's air links continue to make it one of the best connected countries in the world. This includes increasing our links to emerging markets so that the UK can compete successfully for economic growth opportunities**. To achieve this objective, we recognise the importance of both maintaining the UK's aviation hub capability and developing links from airports which provide point-to-point services (i.e. carrying no or very few transfer passengers). This must be done in a sustainable way, consistent with the high-level policies set out in this document.

2.27 To achieve this objective, we have a clear strategy for the immediate future, which is set out below. We will also need to identify deliverable solutions to the very difficult capacity challenge at our biggest South East airports, which is set to get progressively worse in the medium and longer term without effective action. This will be the subject of the separate Call for Evidence which we intend to issue later this year, once stakeholders have had a chance to consider this draft framework.

Question

- Do you agree with our analysis of the meaning and value of connectivity set out in this chapter?

Our short term strategy

2.28 In the short term, to around 2020, a key priority for us is to continue to work with the aviation industry and other stakeholders to make much better use of existing runways at all UK airports. Taking into account responses to the scoping document, our strategy is based on a suite of measures focused on:

- Making best use of existing capacity to improve performance, resilience and the passenger experience;

[32] From 165 destinations in 2002 and a high point of 175 destinations in 2006 to 157 destinations in 2010 (CAA statistics)

- encouraging new routes and services;
- supporting airports outside the South East; and
- better integrating airports into the wider transport network

2.29 This work is in addition to the initiatives set out in paragraphs 1.20 to 1.25 to improve the passenger experience through reform of economic regulation of airports, modernising airspace management and improving the way security is regulated.

Improving performance, resilience and the passenger experience

Trial of operational freedoms

2.30 Our South East Airports Taskforce (SEAT) identified ways to make the most of existing airport infrastructure and improve conditions for all users at the three main London airports.[33] The key recommendations were on improving punctuality, resilience and delay. The "operational freedoms" trial, currently being conducted at Heathrow, involves the more flexible use of the runways to help mitigate disruption and could deliver net environmental benefit through reduced stacking and by cutting the number of unscheduled flights during the night period. The trial is being overseen by the CAA and more information is available on BAA's website.[34]

2.31 The first phase of the trial concluded at the end of February 2012, and phase two, which commenced on 1 July 2012,[35] includes a number of additional measures. For example, some aircraft will be redirected, mostly within existing approved departure routes, to increase departure rates to help the airport recover when a backlog builds up after delays occur. An initiative to explore how the onset of noise disturbance in the very early morning might be reduced has been added to the trial. We have also extended the trial until March 2013 to ensure that we have sufficient data to inform a consultation with local communities. This extension recognises the additional operational flexibility required by the airport during the Olympic Games and will ensure that the data collected during this unique period does not distort the overall results and prevent meaningful comparisons on the benefits and impacts of the measures trialled. The impact of the measures, including their noise impact, is being closely monitored and will feed into an assessment of the trial. Any decision to make these changes permanent will be subject to a full consultation.

[33] *South East Airports Taskforce Report*, DfT, 2011, http://www.dft.gov.uk/publications/south-east-airports-taskforce/
[34] *Operational Freedoms Trial*, BAA, 2012, http://www.heathrowairport.com/noise/noise-in-your-area/operational-freedoms-trial
[35] *Theresa Villiers Written Ministerial Statement*, 15 May 2012, http://www.dft.gov.uk/news/statements/villiers-20120515a/

Ending the Cranford agreement

2.32 To improve operations at Heathrow we confirmed the ending of the Cranford agreement.[36] This decision needs to be implemented by BAA and requires a planning application for the necessary changes to airport infrastructure. Following implementation, noise will be distributed more fairly around the airport, extending the benefits of runway alternation to communities under the flight paths during periods of easterly winds, and delivering operational benefits by letting the airport operate consistently whether there are easterly or westerly winds.

Airport performance charters and capacity utilisation guidelines

2.33 The CAA is also taking forward the SEAT's recommendations on airport specific performance charters and capacity utilisation guidelines through a CAA chaired industry working group called the Airport Performance Facilitation Group (APFG). The purpose of the charters is to help motivate an airport's stakeholders to take decisions based on the interests of the whole airport system by setting out the level of service that airlines and their passengers should expect to receive.

2.34 In addition, airports have been asked to look at the development of guidelines that optimise the utilisation of runway resource at each airport. For example, last year the Heathrow airport community agreed to a winter schedule with some lower hourly capacity limits in order to improve reliability. Over time this will reduce the peak hourly pressure on the airport and thus strengthen resilience. These proposals are being taken forward at an airport level over the course of 2012, but overseen and scrutinised by the APFG.

2.35 In terms of making the best use of capacity at our busiest airports, particularly Heathrow, the Government supports in principle any reasonable, non-discriminatory steps that airport operators may wish to take to limit access to smaller aircraft, where appropriate.

US pre-clearance

2.36 Outside of the EU, the US remains the single most popular market for air services from the UK, with some 17 million terminal passengers at a number of UK airports flying to and from the US.[37] The US authorities provide immigration, customs and agricultural pre-clearance facilities at 15 airports outside the US,[38] including at Dublin and Shannon Airports in Ireland. These facilities, operated by US Customs and Border Protection (CBP), allow passengers travelling to the US to clear US

[36] *Theresa Villiers written ministerial statement*, 7 Sep 2010, http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm100907/wmstext/100907m0001.htm
[37] CAA airport statistics 2011 and DfT analysis of CAA airport statistics 2011
[38] The list of airports is available at: http://www.cbp.gov/xp/cgov/toolbox/contacts/preclear_locations.xml

arrival checks before departure, allowing the flights carrying those passengers to arrive in the US at domestic terminals instead of international terminals, and pre-cleared passengers to pass through airports on arrival without further inspection.

2.37 The decision on whether to operate such facilities at airports overseas ultimately rests with the US authorities. However, the Government believes that US pre-clearance at UK airports could offer significant passenger benefits and improve the overall end-to-end journey experience for passengers flying from the UK to the US, whilst at the same time maintaining passenger security and a secure border, which are shared US and UK priorities.

2.38 Accordingly, the Government will consider, with the US authorities and interested stakeholders in the UK, the feasibility of such facilities being made available in the UK, including the practical and legal issues that would need to be addressed.

2.39 The Government also remains committed to working with the US authorities to take forward access for UK nationals to Global Entry,[39] the US's kiosk-based international registered traveller system that allows its participants to take advantage of expedited immigration clearance on arrival in the US.

Border controls

2.40 As well as seeking to facilitate those wishing to fly to the US, the Government is also focusing on demonstrating that the UK is open for business. Stringent checks at our borders are imperative if we are to prevent illegal immigration, turn away criminals and maintain Britain's secure borders. But whilst the safety and security of the public is our priority, we accept that we have a responsibility to process genuine, low risk passengers without delay. We fully recognise the importance of a positive first experience at the border and that long queues to enter our country make a bad first impression which is why the recruitment of 70 extra Border Force staff for the re-opening of Heathrow Terminal 2 was brought forward to provide additional flexibility to secure the border while dealing with increased passenger numbers at Heathrow. Building on the work done in our SEAT, we are committed to working to improve efficiency at the border, to minimise queues, increase automation and to improve the passenger experience so that that we achieve the best possible experience for people visiting or returning to the UK, whilst at the same time maintaining our border security.

2.41 We are also reviewing the UK's visa regime through the Border Security Assessment. In doing so we will consider the wider prosperity

[39] More information about the Global Entry system is available here: http://www.cbp.gov/xp/cgov/travel/trusted_traveler/

agenda as well as the need to maintain border security. Any changes to the UK's visa regime will be implemented during the course of 2013.

Encouraging new routes and services

Liberalisation of air services

2.42 The opening up of air services to genuine competition has driven down the cost of air transport and greatly improved the range and quality of services. We will continue to seek to liberalise the bilateral air services agreements that govern flights beyond the EU to enable airlines freely to provide services on the basis of commercial considerations. For example, over the past year we have modernised our agreements with key emerging markets, including China and Vietnam, as well as Japan, the United Arab Emirates and Cuba. We are now seeking to modernise our agreements with a range of other countries, including Russia, Ukraine and Egypt, to meet increasing demand.

2.43 Building on the Olympics and the GREAT brand we will work with BIS, UKTI and others to develop a new marketing package. We will use this in our bilateral aviation relations to persuade our international partners of the attractions and benefits offered by airports across the UK to make the best use of alternative available capacity to encourage the development of new services to new destinations wherever possible. These new services will benefit businesses and passengers alike, supporting jobs and growth.

2.44 We will also continue to work closely with the European Commission and other Member States in seeking to develop liberalised EU-level air transport agreements with other countries and to seek the relaxation of restrictions on cross-border investment in order to allow UK airlines greater access to foreign capital and to allow them greater freedom to invest in foreign airlines.

Extending fifth freedoms to Gatwick, Stansted and Luton

2.45 Fifth freedoms are the rights granted to allow an airline of one country to land in a different country, pick up passengers and carry them on to a third country. The UK has long had a general presumption in favour of liberalising fifth freedoms from airports outside the South East.

2.46 To improve connectivity at an international level and to help make better use of existing infrastructure at London's congested airports, we announced last year that we would consult on extending the UK's existing regional fifth freedoms policy to Gatwick, Stansted and Luton.[40] The granting of fifth freedoms would allow a foreign airline to

[40] *National Infrastructure Plan,* HM Treasury-Infrastructure UK, November 2011, http://cdn.hm-treasury.gov.uk/national_infrastructure_plan291111.pdf

carry passengers between these three London airports and another country as part of a service that begins or ends in the airline's home country. For example, a Singaporean airline would be able to operate a service from Changi Airport in Singapore to Gatwick Airport and then on to JFK Airport in the US, picking up passengers at Gatwick Airport and carrying them to New York.

2.47 The CAA found that in the case of airports outside the South East such a policy would deliver net benefits to UK interests in the short term were airlines to take up the new opportunities made available on a sustainable commercial basis. The Government believes that extending the policy to include Gatwick, Stansted and Luton would also benefit the UK, supporting London's and the UK's aviation connectivity and attracting new services and additional stop-over flights to these airports.

2.48 This policy would also be subject to the same conditions that apply to the UK's existing regional fifth freedoms policy,[41] namely that the grant of such rights would be subject to a case-by-case consideration within the context of the current position in the UK's bilateral aviation relationship with the country concerned (for example, we might not grant such rights if there were concerns that there were not a level competitive playing field in the market, such as if it were argued that the airline in question was in receipt of state aid that was distorting competition).

Questions

- Do you support the proposal to extend the UK's fifth freedom policy to Gatwick, Stansted and Luton? Please provide reasons if possible.
- Are there any other conditions that ought to be applied to any extension of the UK's fifth freedom policy to Gatwick, Stansted and Luton?

Airport slots

2.49 In November 2011 the European Commission published the *Better Airports Package,*[42] which includes a range of legislative proposals, including to amend the EU Slot Regulation,[43] which are intended to help boost capacity, reduce delays and improve quality at Europe's airports.

[41] *Relaxation of restrictions on international services from UK regional airports,* DfT, June 2011, http://www.dft.gov.uk/publications/relaxation-of-restrictions-on-international-services-from-uk-regional-airports

[42] The European Commission's *Better Airports Package* was launched in December 2011, http://ec.europa.eu/transport/air/airports/airports_en.htm

[43] EC regulation No. 1380/2008 amending Regulation (EC) no 332/2002 establishing a facility providing medium-term financial assistance for Member States' balance of payments, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1360:EN:NOT

2.50 We have a strong interest in ensuring an effective airport slot allocation regime, given the importance of aviation to the UK and pressure on our major airports. We support the underlying purpose of the EU Slot Regulation, which is to allow airlines fair and equal access to airports across the EU through independent and transparent slot allocation procedures. We also support the objective of the Commission's proposed revisions, which is to promote the most effective use of airport slots and build on the existing transparent, market-based approach to encourage the more efficient use of scarce capacity at congested airports.

2.51 We are considering carefully the impact of the proposed amendments on important commercial interests held by UK stakeholders. We will also work closely with the Commission and other Member States with the aim of ensuring that any amendments to the regulations will recognise the importance of domestic access to London airports.

2.52 In addition, we have started a new piece of work to identify options, within the EU legislative framework, aimed at ensuring that slots at our congested airports are used in the most economically beneficial way for the UK. The focus of this work is on seeking to optimise the functioning of the secondary trading market for airport slots. We expect to engage with key stakeholders later in the summer and publish a progress report in the autumn.

Public Service Obligations

2.53 Connectivity to London airports provides an important contribution to regional economies and national cohesion. In recognition of the importance of air services to these areas, the Government is minded to support applications by devolved and regional bodies to impose Public Service Obligations (PSOs), which comply with EU law,[44] to protect services, where it is necessary, between other UK airports and London.

2.54 Making the case for PSOs and demonstrating the importance of particular air services to the economic development of areas of the UK will continue to be the responsibility of bodies, such as the relevant Devolved Administration in Northern Ireland, Scotland or Wales, and Local Enterprise Partnership (LEP) or local authority in England, should they wish to do so. The DfT would need to be reimbursed for any funds provided for subsidies, should these be required.

2.55 The imposition of a PSO enables the airport slots used for that service to be "ring-fenced", so that an airline cannot use them for a different route. However, it should be noted that under the current EU slot

[44] European Parliament regulation of 24 September 2008 on common rules for the operation of air services in the Community *(1008/2008)*, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:293:0003:0020:EN:PDF

allocation regime, PSOs are justified by economic need, which is more likely to be about linking cities and regions rather than specific airports.

2.56 In recent years, access for domestic air services to Heathrow has become limited due to capacity constraints. However, although many UK airports have lost their air links to Heathrow, most still have air links to London as well as links to global aviation networks through new services to mainland European and other international hubs. For example, there is no longer a direct Heathrow-Inverness route, but Inverness is directly connected to Gatwick, Luton and Amsterdam Schiphol.

Route Development Funds

2.57 Although Route Development Funds (RDFs) have supported the establishment of some new air services from airports, such as those by the Welsh Assembly Government from 2005 and the former North East Regional Development Agency from 2006, changes to the Aviation State Aid Guidelines,[45] which came into force in autumn 2005, have significantly reduced the scope for support.

2.58 These guidelines imposed significant restrictions on the levels of financial support and types of service that can be supported through RDFs. The current guidelines essentially limit state aid to intra-EU services serving smaller airports and regions with low passenger demand. Restrictions mean that long-haul routes and services from larger airports outside the South East can no longer be supported.

2.59 The European Commission is currently reviewing these guidelines. The UK has highlighted concerns that the current guidance on start-up aid does not provide sufficient scope to support the establishment of routes from outer regions of the EU, including routes from within Northern Ireland, Scotland and Wales.

2.60 In the current economic conditions, we recognise the valuable contribution that the provision of start-up aid for new air services from airports outside the South East can provide in improving connectivity and economic growth. In the context of the Commission's review, the Government will continue to push for more flexibility in the application of start-up aid that will help with the establishment of new services at airports outside the South East, where such aid would not distort competition.

[45] Communication from the Commission: Community Guidelines on Financing of Airports and Start-Up Aid to Airlines Departing from Regional Airports (2005/C 312/01). The guidelines were published in the Official Journal of the European Unions on 9 December 2005

Supporting airports in Northern Ireland, Scotland, Wales and regional airports in England

The growth of airports outside the South East

2.61 The Government recognises the very important role airports across the UK play in providing domestic and international connections and the vital contribution they can make to the growth of regional economies. For more remote parts of the UK, aviation is not a luxury, but provides vital connectivity.19 million passengers took domestic flights in 2011.[46]

2.62 Many airports act as focal points for business development and employment by providing rapid delivery of products by air and convenient access to international markets. For example, Birmingham Airport employs only 500 people directly, but 150 companies on the airport site employ a total of 7,000 people.[47] East Midlands Airport acts as a hub for freight with three of the four global express freight providers and Royal Mail running major operations from the site.

2.63 Airports in Northern Ireland, Scotland, Wales and regional airports in England also have an important role in helping to accommodate wider forecast growth in demand for aviation in the UK, which could help take some pressure off London's main airports. The availability of direct air services locally from these airports can reduce the need for air passengers and freight to travel long distances to reach larger UK airports.

2.64 The Government wants to see the best use of existing airport capacity and, as a general principle, we support the growth of airports in Northern Ireland, Scotland, Wales and regional airports in England. However, we recognise that the development of airports can have negative, as well as positive, local impacts including on noise levels. We therefore consider that proposals for expansion at these airports should be judged on their individual merits, taking careful account of all relevant considerations, particularly economic and environmental impacts.

2.65 Airports are already responding to local demands, for example:

- Birmingham Airport has recently completed a terminal development project that will enable the airport to cater for 18 million passengers (compared with the approximately 9 million handled to date per year) and is taking forward plans for a runway extension. This will allow the airport to handle larger aircraft flying to more long-haul

[46] *CAA airport statistics*, 2011, http://www.caa.co.uk/docs/80/airport_data/2011Annual/Table_10_2_Domestic_Terminal_Pax_Traffic_2011.pdf

[47] More information is available on Birmingham Airport's website at: http://www.birminghamairport.co.uk/meta/careers/vacancies.aspx

destinations, which will maximise regional opportunities and help meet additional UK demand.

- Southend Airport has completed a programme of investment that has transformed the airport. A new terminal has been constructed, a runway extension that allows the operation of newer generation, high-efficiency, medium capacity aircraft has been completed, and an airport railway station that offers direct rail links to London opened in September 2011. As a result, Southend Airport expects to handle one million passengers in 2012 and create 500 new jobs.
- At other airports, such as Bristol and Leeds Bradford, airport terminal development projects are currently underway, which will deliver additional capacity.
- In addition, ongoing investment programmes at other airports such as Manchester, Newcastle, Glasgow, Edinburgh, Belfast City and Belfast International are delivering additional improvements to airport capacity, airport facilities and the passenger experience.

Enterprise Zones

2.66 The Government announced in Budget 2011 the creation of a number of Enterprise Zones in LEP areas across England. Enterprise Zones are geographically defined areas based around the core principle of reducing barriers for businesses to grow, with the intention of generating new businesses and jobs, through a combination of fiscal incentives and simplified planning controls. In England, 24 Zones have been established with the aim of driving local and national growth and contributing to the rebalancing of the economy.

2.67 As part of this initiative, an Enterprise Zone has been established around Manchester Airport. The proposed "Airport City" is a £659 million, 150-acre development which will transform the airport into an international business destination and create up to 20,000 new jobs over the next 15 years. Manchester Airport is a key component of the Greater Manchester Strategy[48] and contributes £3.5 billion to the UK economy, providing direct employment to 26,000 people and supporting a further 50,000 jobs.[49]

2.68 To support further improvements to Greater Manchester's international connectivity and trade, a new Metrolink tramline is currently under construction that will connect the airport to the tram network which covers the city region. In addition, the Government announced last November that it would contribute £165 million to the Airport Link Road, which will connect the M56 and A6, improving access to the airport and Enterprise Zone.

[48] *Greater Manchester Strategy*, 2011, http://neweconomymanchester.com/stories/842-greater_manchester_strategy
[49] *Sustainability Report*, Manchester Airport Group, 2009/10, http://www.magworld.co.uk/sr2009/business/strategy.html

2.69 An Enterprise Zone has also been established around Newquay airport, and the Enterprise Zone in Cardiff has recently been expanded to incorporate the airport. To recognise the importance of the airport to the wider Welsh economy, the First Minister of Wales formed the Cardiff Airport Task Force. The Task Force is a collaboration between the airport's owners, the Welsh Government and the wider public sector and business community. It will identify and recommend improvements and investments needed for Wales to boost air connectivity, improve the passenger experience and maximise its economic impact, commercially and for Wales. This is only one of many examples of good practice in this regard.

2.70 Early indications suggest that Enterprise Zones are proving successful in attracting interest from businesses and overseas investors, which should help to bolster growth at those airports. The Government, through UK Trade and Investment, is including Enterprise Zones in its strategic promotion of UK business and investment opportunities to potential overseas investors.

2.71 At other airports outside the South East, scope exists for LEPs to develop local strategies to maximise the catalytic effects of airports to attract business and support growth. LEPs, in partnership with local authorities, have a range of tools at their disposal to help support businesses in the vicinity of airports. There could also be scope for LEPs to take a more active role in feeding into airports' plans for surface access, to ensure that there is adequate public transport access for employees. The Government encourages airport operators to engage actively with their LEPs to ensure that they are fully integrated into their LEPs' overall economic strategy for the area, and to maximise the benefits to local economies.

Extending regional liberalisation policy

2.72 For many years, the UK has sought to open up access to the airports outside the South East to improve opportunities for connectivity and to help reduce demand on South East airports. In the late 1990s the UK adopted an explicit open access policy, whereby other countries were offered, on a reciprocal basis, unrestricted access to airports in Northern Ireland, Scotland, Wales and regional airports in England, and in exchange UK airlines would have unrestricted access from these airports to those of the other country.

2.73 There is no evidence to suggest that the UK's current bilateral air service arrangements are presenting a significant constraint on either existing or potential services to UK airports outside the South East. Furthermore, many airports find themselves reliant on UK airlines to provide key access to important domestic and international destinations. Nevertheless, the Government believes that it would send a strong positive signal, increase competition to provide connectivity and further incentivise the launch of such services if the UK went a

stage further and adopted a unilateral regional open access policy on a case-by-case basis. We are proposing, therefore, to offer bilateral partners open access to airports outside the South East in order to facilitate inward investment in new routes and extra choice for business and passengers without necessarily having to secure reciprocal access for UK airlines to the airports of the other country.

2.74 The granting of such rights would be subject to a case-by-case consideration within the context of the current position in the UK's bilateral aviation relationship with the country concerned (for example, we might not grant such rights if there were concerns that there were not a level competitive playing field in the market, such as if the airline in question was in receipt of state aid that was distorting competition).

Question

- Do you agree that the Government should offer bilateral partners unilateral open access to UK airports outside the South East on a case-by-case basis?

Maintaining a viable network of General and Business Aviation

2.75 Across the UK there is a network of aerodromes of varying sizes, from airports in Northern Ireland, Scotland, Wales and regional airports in England to small GA airfields into which GA aircraft can readily gain access. While almost all of these are privately owned and operated, maintaining access to such a national network is vital to the continuing success of the sector. GA connects many UK and international city pairs that do not have, and are unlikely to develop, scheduled air services or other direct transport links. These links are particularly important for local businesses. The closure or redevelopment of any one of these airfields can have a negative impact on the viability of the wider GA network and on the local economy.

2.76 Given the importance of this GA network, while recognising that in congested airports this may not be appropriate, we encourage airport operators to ensure that GA aircraft are able to continue to enjoy equitable access to their airports and in doing so take account of the needs of all users, alongside other relevant considerations.

2.77 We will also carefully consider any EU legislative proposals affecting the GA sector that may emerge in the future and will seek to ensure that they are based on the principles of proportionality and subsidiarity and appropriate for the type of aircraft to which they apply. In addition, we support the CAA's review of the Regulatory Approach to Recreational Aviation[50] which is also aimed at ensuring that UK safety regulation is proportionate.

[50] *Strategic Review of General Aviation in the UK,* CAA, July 2006, http://www.caa.co.uk/docs/33/StrategicReviewGA.pdf

2.78 The planning system can also impact on the viability of small and medium sized aerodromes. The *National Planning Policy Framework* (NPPF)[51] is intended to simplify the Government's overarching planning policy, but the underlying planning principles in respect of airfields remain unaltered. The NPPF states "when planning for… airports and airfields that are not subject to a separate national policy statement, [local] plans should take account of… [the NPPF] as well as the principles set out in the relevant national policy statements and the Government Framework for UK Aviation".

2.79 Where a planning application is made that is likely to have an impact on an existing aerodrome's operations, account should be taken of the contribution the aerodrome makes to the local, regional and national economy. This is also something which could be considered by ACCs where appropriate (see Chapter 5).

Integrating airports in the wider transport network (short term)

Improving surface access to airports

2.80 High quality, efficient and reliable road and rail access to airports contributes greatly to the experience of passengers, freight operators and people working at the airport. Greater use of low carbon modes to access airports also has the potential to reduce CO_2 emissions, as well as leading to less congestion and improved air quality.

2.81 We are therefore committed to working with airport operators, transport operators, local authorities and LEPs to improve surface access to airports across the country, whilst taking into account the associated environmental impacts. We are already contributing funding to make this happen. For example, through the Regional Growth Fund (RGF), the Government has awarded:

- £19.5 million to Luton Borough Council for junction enhancements which will improve access from the M1 to Luton Airport;
- £40 million to Kent County Council for its *Expansion East Kent* programme. This includes a project to help reduce rail journey times between Ashford and Ramsgate which could support the development of Manston Airport; and
- £18m to Doncaster Borough Council for the *Gateway to the Sheffield City Region.* This is an infrastructure project to improve access to the Sheffield area. The RGF grant will be used towards the construction of a link road between Doncaster and Robin Hood Airport.

[51] *National Planning Policy Framework,* Department of Communities and Local Government, March 2012, http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf

2.82 In the Autumn Statement last November, we also announced £160 million funding for widening the A453 between Nottingham, the M1 and East Midlands Airport, which will facilitate access for both passengers and air freight operators.

Rail access to airports

2.83 Rail offers opportunities for efficient and environmentally-friendly connections to airports, particularly for larger airports where passenger numbers are sufficient to justify fast and frequent services. We will continue our work with airport operators, the rail industry, local authorities and LEPs to improve rail access to our airports in the coming years.

2.84 For example, we are providing funding for a new rail line from the Great Western Main Line near Slough to Heathrow which could provide significantly improved connections from the Thames Valley, the West of England and Wales to the airport and journey time savings of up to 30 minutes.

2.85 Significant investments are already being made or committed, for example, improving the Piccadilly Line as part of the wider London Underground upgrade which will benefit Heathrow, upgrading Gatwick Airport's station and improving Thameslink services to Gatwick and Luton. A new fleet of electric trains has been introduced on the Stansted Express. Access to Manchester Airport is being improved through the measures set out in paragraph 2.68 above, as well as through delivery of electrification programmes in the north of England and the elements of the Northern Hub[52] which have already been announced.

2.86 Improving rail access to airports is also an important part of our offer in encouraging airlines to use airports which are less capacity constrained. Over the coming months, the DfT will focus on working with the rail industry, operators of some of our biggest airports: Heathrow, Gatwick, Stansted, Luton, Birmingham and Manchester, and in collaboration with local communities and other key stakeholders to identify further opportunities to improve rail surface access and agree how these might be delivered.

2.87 The first stage of this work will be a review of rail access, with key stakeholders. The second stage will identify options for addressing any issues with a high-level assessment of the business case of each option. A prioritised list of options will be identified, and this will form the basis of an ongoing work programme. This work will take into account related plans of the industry and local authorities. It will consider how to ensure that the benefits of any potential service improvements are shared between airports and local communities.

[52] More information on the Northern hub is available here: http://www.northernhub.co.uk/

Forthcoming franchise re-lets offer good opportunities for a collaborative approach to agreeing priorities for service improvements.

The medium and long term

Integrating airports in the wider transport network (medium and long term)

Developing a national high speed rail network

2.88 The Government will ensure that its national strategies for aviation and high speed rail are aligned, so that these modes can effectively complement each other and provide a better travel offer to the UK travelling public.

2.89 International experience shows that rail can be an attractive and convenient form of travel for inter-urban journeys, enabling people to travel directly from city centre to city centre. An important part of our approach is to encourage and enable more people to take the train, instead of air transport, for domestic and short-haul European journeys, both in order to achieve environmental benefits and to release capacity at airports. However, we recognise that there will always be a need for domestic aviation, for example, for connections to Northern Ireland and the Scottish islands and other parts of the UK not served by rail, for cross-country routes, and for express freight onward journeys.

2.90 The preferred route for Phase 1 of High Speed 2 will reduce journey times to the North West and Scotland by around half an hour, via services running directly onto the existing West Coast Main Line, which will improve the attractiveness of rail as an alternative to domestic aviation. The first phase of HS2 will also provide a link to Birmingham airport, via an interchange station on the London to West Midlands route, and enhanced access to Heathrow from the West Midlands and the North West via a new station at Old Oak Common in West London, offering direct and convenient access to the Heathrow Express service and to Crossrail.

2.91 The full “Y” network will enable fully high speed services to Manchester, the East Midlands, South Yorkshire and Leeds, and the operation of “classic compatible” trains on the network will further reduce journey times to Scotland and the North West, as well as enabling high speed services to reach new destinations in Yorkshire and the North East via the East Coast Main Line. These links will bring Glasgow and Edinburgh within 3 hours and 40 minutes of central London by rail, a journey time comparable with aviation, and reduce the rail journey time from London to Newcastle to just over 2 hours. We estimate that, with the Y network in place, as many as 4.5 million air trips a year could be made by rail which might otherwise have been made by air.

2.92 HS2 Ltd has also now submitted to the Government detailed route options for a spur from the main HS2 line to serve Heathrow Airport. This would provide improved links from the Midlands and the North, and enable HS2 passengers to travel directly to Heathrow without having to change trains. HS2 Ltd is also assessing the options and case for serving Manchester airport by high speed rail. As the second phase of our proposals is developed, we will take a coherent approach to enhancing airport connectivity and ensure that we review the Heathrow spur proposals, where appropriate, in light of responses to this consultation and the Call for Evidence on maintaining the UK's international connectivity which we intend to publish later this year.

2.93 The Government will publish its initial preferred route and station options for Phase 2 in autumn 2012, and launch a consultation in 2013/14.

2.94 This improved connectivity is an important way to generate business in the regions and help encourage demand at airports in Northern Ireland, Scotland, Wales and regional airports in England. Additionally we are committed to continuing our work with Birmingham Airport and other relevant stakeholders to ensure the high speed rail link to the airport will maximise the opportunities to attract new air services, which could provide opportunities to reduce pressure on congested airports in the South East.

Conclusions

2.95 We have set out above a strategy based on practical measures which we believe will improve the use of existing runways across the UK and ease pressure on our hub airport in the short term and into the medium and long term with the development of HS2. However, beyond 2020, we recognise that even with HS2 in place, using current operating techniques, there will be a capacity challenge at the biggest airports in the South East of England. The five London airports were at 78 per cent capacity in 2010 and they are forecast to be 91 per cent full in 2020 and totally full by around 2030. Heathrow is in practice already operating at capacity.

2.96 Responses to the scoping document clearly showed that many people recognise the need for the UK to maintain its excellent connectivity, over the long term, but there was no agreement on how to do this. Although it was not the purpose of the scoping document, some respondents put forward airport-specific suggestions for addressing their view of the capacity challenge. However, these suggestions were not supported by sufficient details on key factors such as environmental sustainability and commercial viability. Any decisions on specific solutions need to be made on a strong basis of evidence.

2.97 As previously mentioned, we intend to explore this through a Call for Evidence on maintaining the UK's international aviation connectivity

with a focus on the medium and longer term. We intend to publish this later this year once stakeholders have had a chance to consider this draft framework.

Question

- Do you have any other comments on the approach and evidence set out in Chapter 2?

Chapter 3: Climate change impacts

Context

3.1 Globally, the aviation sector is responsible for about one to two per cent of greenhouse gas (GHG) emissions[53]. In the UK, domestic and international aviation[54] emissions account for about five per cent of GHG emissions or 21 per cent of the transport sector's GHG. This compares to 42 per cent emitted by cars, 14 per cent by heavy goods vehicles and seven per cent by domestic and international shipping[55]. Aviation is, however, likely to make up an increasing proportion of the UK's total GHG emissions as other sectors decarbonise more quickly over time.

3.2 Aviation's most significant contribution to climate change in the longer term is through emissions of carbon dioxide (CO_2), which make up about 99 per cent of the sector's Kyoto basket of GHG emissions,[56] and this has therefore been the focus of government action. But we recognise that that the complexities of atmospheric chemistry mean that the total climate change impacts of aviation are greater than those from its CO_2 emissions alone. Non-CO_2 emissions from aviation can have both cooling and warming effects on the climate, with a likely overall warming impact on the atmosphere. Nitrogen oxides (NO_x), sulphur oxides (SO_x) and water vapour all contribute to the overall effect, with NO_x emissions resulting in the production of ozone, a greenhouse gas and air pollutant with harmful health and ecosystem effects. However, despite advances over the past decade, considerable scientific uncertainty remains about the scale of the effect on climate change of non-CO_2 emissions. As a consequence there is no consensus on whether and how to mitigate them.

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[53] *Reducing Transport Greenhouse Gas Emissions: Trends and Data*, International Transport Forum, 2010, http://www.internationaltransportforum.org/Pub/pdf/10GHGTrends.pdf

[54] There is currently no internationally agreed way of allocating international emissions to individual countries. The percentage shares are based on the percentage of bunker fuel sales to the aviation sector from the UK.

[55] Domestic and international aviation emissions on the basis of bunker fuel sales in the UK to the aviation sector. *UK Greenhouse Gas Emissions*, Department of Energy and Climate Change, 2010, available through http://www.decc.gov.uk/en/content/cms/statistics/climate_stats/data/data.aspx

[56] *Reducing Transport Greenhouse Gas Emissions: Trends and Data*, International Transport Forum, 2010, http://www.internationaltransportforum.org/Pub/pdf/10GHGTrends.pdf

3.3 Our focus will therefore remain on actions to target CO_2 emissions, which may also help to reduce some non-CO_2 emissions. We will continue to support efforts to improve the understanding of the non-CO_2 impacts of aviation. The UK is participating in and helping to fund a number of projects into non-CO_2 impacts such as the effects of contrails and NO_x on atmospheric warming. As scientific understanding improves and evidence of the effects of non-CO_2 emissions becomes clearer, we will adapt our approach as necessary to ensure our strategy addresses aviation's total climate change impacts effectively.

Our climate change strategy for aviation

Policy objectives

3.4 **The Government's objective is to ensure that the aviation sector makes a significant and cost effective contribution towards reducing global emissions.**

3.5 Our emphasis is on action at a global level as the best means of securing our objective, with action at European level a second best option and a potential step towards wider international agreement. We will take action at a national level where that is appropriate and justified in terms of the balance between benefits and costs.

Policy measures

Action at a global level

3.6 Flights departing from UK airports to international destinations account for about 95 per cent of UK aviation emissions,[57] so measures to tackle CO_2 emissions from UK aviation need bilateral or multilateral agreement. GHG emissions emitted anywhere in the world contribute to a global problem, which we believe requires a global solution.

3.7 The UK has played a leading role in securing progress internationally, both within ICAO and within the EU. The global nature of the climate change challenge and the international character of the aviation industry makes a strong case for a global deal on emissions that is comprehensive, non-discriminatory and ensures that CO_2 emissions are not simply displaced elsewhere. The greatest contribution that any single state can make to reducing aviation emissions is to actively support steps towards such a global deal. The UK will therefore continue to push for international agreement to ensure that action is taken at the right level and do everything we can to bring others along with us.

[57] Measured on a bunker fuel sales basis. *Transport Statistics Great Britain,* DfT, 2011, http://www.dft.gov.uk/statistics/releases/transport-statistics-great-britain-2011.

The International Civil Aviation Organization (ICAO)

3.8 The Government will continue to support action through ICAO towards a global aviation climate change agreement. While we would have preferred to see more rapid progress, steps are being made in the right direction. ICAO has committed, through its Committee on Aviation Environmental Protection (CAEP), to agreeing an international CO_2 standard for aircraft by 2013 which aims to reward and encourage improvements in technology to reduce emissions.

3.9 There has also been an agreement to global aspirational goals of carbon neutral growth from 2020 and annual fuel efficiency improvements of two per cent per year out to 2050. Further work to explore how these goals can be delivered has been agreed, which includes exploring the feasibility of a global market based measure to address climate change emissions from international aviation. We fully support these developments and will continue to press for more progress to be made.

The international aviation industry

3.10 The international aviation industry has also made progress in developing an agreed strategy to reduce its emissions. Airlines, represented by the International Air Transport Association (IATA), have set targets for a 1.5 per cent average annual improvement in fuel efficiency to 2020, to deliver carbon-neutral growth through a cap on 'net' emissions from 2020 onwards and to cut net emissions in half by 2050 compared with 2005 levels.

"Gross" versus "net" emissions

The level of "gross" emissions from a particular sector is the actual quantity of emissions emitted by the sector. The "net" emissions for the sector take account of the emissions allowances or international project credits that it has traded with other sectors. For example, a sector in the EU ETS may be given a cap of 80 $MtCO_2$ and allocated allowances to this level. If the sector actually emits 100 $MtCO_2$, it will need to purchase an additional 20 $MtCO_2$ of allowances or credits from other sectors in order for the overall cap to be met. This sector would be said to have gross emissions of 100 $MtCO_2$ and net emissions of 80$MtCO_2$ (100$MtCO_2$ gross emissions minus 20 $MtCO_2$ of purchased allowances or credits).

3.11 Sustainable Aviation, a UK industry coalition of airlines, airports, aerospace manufacturers and air navigation service providers, has set out a road map describing how, similar to the IATA target, net CO_2 emissions from UK aviation can be halved by 2050, through

technological improvements and carbon trading,[58] against a 2005 baseline. The Government welcomes these developments as a clear indication that the aviation industry is taking the problem seriously. We urge the industry to strive towards achieving these objectives and, over time, to raise its level of ambition.

Action at a European level

3.12 In the absence of an ambitious global agreement to tackle aviation emissions, our strategy is to continue strongly to support action at a European level. The EU has agreed a comprehensive strategy to tackle climate change emissions based upon four pillars: reduction of emissions at source; research and development; modernisation of air traffic management and market-based measures. Two of the key components of the strategy are implementing the EU Emissions Trading System (EU ETS) and improving EU airspace design through the Single European Sky programme.

EU Emissions Trading System (EU ETS)

3.13 From 1 January 2012, all flights arriving into and departing from the EU were included within the scope of the EU ETS, the largest multilateral emissions trading scheme to date. This is a landmark in tackling aviation emissions as it puts a limit on emissions while at the same time enabling the aviation sector to grow sustainably. Under the EU ETS, flights are subject to an emissions cap (limit) in 2012 of 97 per cent of average annual emissions between 2004 and 2006. In 2013 this cap will reduce to 95 per cent. This means that net emissions from flights arriving into and departing from EU airports cannot increase above the level of the cap.

3.14 Inclusion in the EU ETS therefore requires airlines to reduce their own emissions to stay within the cap, or to invest in other sectors where options for reducing CO_2 are easier and cheaper to deliver. As noted in responses to the scoping document, airlines already have a considerable cost incentive to reduce fuel consumption, which directly reduces emissions. By effectively putting a price on CO_2 the EU ETS provides an additional financial incentive to invest in low carbon technologies and more efficient operational practices. It is estimated that aviation's inclusion in the EU ETS will reduce net CO_2 emissions from flights arriving into and departing from EU airports by about 480 million tonnes of CO_2 ($MtCO_2$) between 2012 and 2020, and by around 80 $MtCO_2$ per year by 2020.[59]

[58] *CO2 Roadmap*, Sustainable Aviation, February 2012, http://www.sustainableaviation.co.uk/wp-content/uploads/SA-CO2-Road-Map-full-report-280212.pdf

[59] *UK Impact Assessment for the Second Stage Transposition of EU Legislation to include Aviation in the European Union Emissions Trading System (EU ETS),* DECC, 2010, http://www.legislation.gov.uk/uksi/2010/1996/pdfs/uksiem_20101996_en.pdf

3.15 The Government believes the EU ETS is a cost-effective means of achieving a specified reduction in emissions, and the measure was supported by a clear majority of scoping document respondents. The overall cap places a limit on the total CO_2 emissions from all of the sectors who are members of the scheme. The ability of sectors with the lowest abatement costs to sell their surplus allowances to those whose abatement costs are higher ensures that emission reductions are made wherever it is cheapest to do so. Airlines are expected to be net purchasers of emissions allowances, at least in the short to medium term, as abating emissions from within the sector is anticipated to be more difficult and therefore more costly than in other industries.[60]

3.16 The EU ETS has a number of flexibilities that enable changes to be agreed which can increase the environmental ambition. For example, over time the emissions cap could be reduced to ensure consistency with agreed national and international targets. Currently the EU ETS delivers emissions savings consistent with the EU goal of reducing GHG emissions by 20 per cent by 2020. In the future the EU ETS could be used to deliver longer term targets consistent with the internationally agreed goal to limit the rise in average global temperature to two per cent. The aviation emissions cap could therefore be adjusted accordingly to ensure a fair contribution from the sector to such targets.

Implementing the Single European Sky (SES)

3.17 The Single European Sky (SES) initiative aims to enhance design, management and regulation of airspace across the EU by moving from airspace divided by national boundaries to the use of "functional airspace blocks" (FABs), the boundaries of which are designed to maximise the efficiency of the airspace. The SES programme is already delivering and expected to deliver further significant benefits not only in terms of punctuality and resilience but also in reduced CO_2 emissions and mitigation of local environmental impacts. The UK will maintain its strong support for the successful implementation of the SES.

3.18 Our commitment is demonstrated by the UK's establishment, with Ireland, of the first FAB in the EU, which is delivering real benefits including CO_2 reduction through greater flight and fuel efficiency. It is estimated that since 2008, the UK-Ireland FAB has provided approximately £35 million of savings, including around 150,000 tonnes of CO_2 and around 50,000 tonnes of fuel[61]. In 2012 alone, the total savings are expected to be around £22 million, including 25,000 tonnes of fuel, equivalent to £15 million in fuel costs. Based on the current work programme, it is estimated that by 2020, annual savings could

[60] *A Marginal Abatement Cost Curve Model for the UK Aviation Sector,* EMRC and AEA, 2011, http://assets.dft.gov.uk/publications/response-ccc-report/mac-report.pdf (for example)
[61] *UK-Ireland FAB report 2009*, NATS, http://www.nats.co.uk/wp-content/uploads/2010/06/FABReport2009.pdf

reach £29 million,[62] including 35,000 tonnes of fuel and 111,000 tonnes of CO_2. The UK-Ireland FAB is working actively to enhance its links with air navigation service providers in other northern European countries with a view to further improving efficiency in the future, potentially leading to a FAB covering a wider area. The UK is also working closely with the adjoining FAB Europe Central (FABEC) States.[63]

Action at a national level

3.19 While the main focus of our strategy is to tackle international aviation emissions at an international level, there are a number of actions we are considering or already taking at a national level to support the effective working of the EU ETS and help reduce international emissions. For example, we announced in January 2012[64] our plans to update the guidance the Secretary of State for Transport gives to the CAA on its environmental objectives relating to the exercise of its air navigation functions.

The Climate Change Act (2008)

3.20 The Climate Change Act (2008)[65] commits the UK to reducing its net GHG emissions by at least 80 per cent below the 1990 baseline by 2050 (the target), and requires the Government to set five-yearly carbon budgets, establishing a path towards meeting that target. Emissions from international aviation (and shipping) are currently not included in the Act's definition of "emissions" and therefore do not form part of the target. However, the Government is required to set out the circumstances and extent to which emissions from international aviation should be included before the end of 2012, or explain to Parliament why it has not done so.

3.21 In April 2012, the Committee on Climate Change (CCC) published its advice to the Government that the UK's national carbon budgets and targets should include aviation (and shipping) emissions. Given the practical complexities, the Government is carefully analysing the evidence and options presented. The Government intends to make clear its position later this year.

3.22 The Climate Change Act commits the UK to taking action on adapting to the expected impacts of climate change. It requires the Government to undertake a national climate change risk assessment every five years and gives Government powers to direct statutory organisations to

[62] All £ figures in this paragraph were converted from Euros at a rate of 1:1.23 (Correct at 14/6/12, www.xe.com)
[63] The FABEC States are France, Germany, Belgium, Luxembourg, the Netherlands and Switzerland.
[64] Updating Guidance to the CAA on environmental objectives relating to the exercise of its air aviation functions: http://www.dft.gov.uk/publications/air-navigation-guidance-environmental-objectives/
[65] *Climate Change Act 2008,* http://www.legislation.gov.uk/ukpga/2008/27/contents

report on their climate change assessments and adaptation actions. In 2009 the Adaptation Sub-Committee (ASC) was established as a sub-committee of the CCC to provide advice, analysis and scrutiny of the Government's adaptation programme and compliance with the Act. In 2013 the Government will publish the first statutory National Adaptation Programme putting in place actions to address priority climate change risks.

2050 Aviation CO_2 target

3.23 In the context of the previous administration's decision to support a third runway at Heathrow, the last government announced a target to reduce emissions from UK aviation[66] to below 2005 levels by 2050 (the 2050 aviation CO_2 target). It asked the CCC to provide advice on options for reducing CO_2 emissions from UK aviation to achieve this. The CCC published its report in December 2009.[67] This Government subsequently commissioned further analytical work to assess the potential for reducing CO_2 emissions from different policy measures and the relative costs of doing so, the results of which were published last August[68] as part of our response to the CCC report.[69]

3.24 Responses to the scoping document demonstrated both support for and significant opposition to the adoption of a sector specific national aviation target. Those in favour felt the cap on aviation emissions under the EU ETS was not sufficient, that it was important for aviation to reduce not only its net emissions but also its gross emissions and that a target of this type would provide the right signal to industry to achieve this. Those against were concerned that a unilateral target would put the UK aviation industry at a competitive disadvantage, without reducing emissions at the EU level. Any reduction in emissions from aviation would reduce its demand for EU ETS allowances, thereby replacing emission reductions from other sectors with emission reductions from the aviation sector. As abatement is generally more expensive in aviation than in other EU ETS sectors, the national aviation target would therefore result in a higher cost to achieve the same level of emission reductions as the EU ETS by itself.

3.25 Before making a decision on whether the UK should retain a national emissions target for aviation, the Government believes that it is important to have considered the best available evidence, including in relation to the effectiveness of EU ETS allowances. The CCC's advice on whether international aviation (and shipping) emissions should be

[66] UK emissions are taken to be the sum of all domestic flights and the emissions from international flights departing the UK.
[67] *Meeting the UK aviation target – options for reducing emissions to 2050*, Committee on Climate Change, December 2009, http://www.theccc.org.uk/reports/aviation-report
[68] *A Marginal Abatement Cost Curve Model for the UK Aviation Sector,* EMRC and AEA , 2011, http://assets.dft.gov.uk/publications/response-ccc-report/mac-report.pdf
[69] *Government response to the Committee on Climate Change report on reducing CO2 emissions from UK aviation to 2050*, DfT, August 2011, http://www.dft.gov.uk/publications/reducing-co2-emissions

brought within the Climate Change Act will help to inform our decision about the national aviation target.

Alternatives to air travel

3.26 Alternatives to travel, such as the use of teleconferencing, videoconferencing or remote working, could help to reduce the demand for air travel and hence emissions from aviation. However, as the CCC noted in its 2009 report,[70] there is some evidence suggesting that meetings based on videoconferencing may be additional, rather than substituting for meetings which require air travel. These meetings may give rise to further meetings which require air travel. Nevertheless, the success of the WWF's "1-in-5" initiative[71] demonstrates what can be achieved when companies adopt ambitious targets to reduce their air travel. To facilitate this behavioural change, the Government is investing £100 million to create “super-connected” cities across the UK, with 80-100 megabits per second broadband and city-wide high-speed mobile connectivity, as well as opening the £20 million Rural Community Broadband Fund to help ensure more rural homes and businesses also receive superfast broadband.

3.27 The Government is not seeking to dispute the benefits provided by travel between the UK’s major towns and cities. We fully accept the economic benefits provided by such journeys. We also accept that there are limits on the impact that improved technologies are likely to have on the demand for travel, not least because a successful video-conference may prompt the need for further face-to-face meetings which require travel. Nevertheless, these technologies may offer an appropriate alternative to some types of journey, and they are therefore well worth exploring as part of our strategy for addressing the environmental impact of aviation.

3.28 As set out in Chapter 2, the Government has announced its decision to develop a new national high speed rail network. The faster journey times that high speed rail can achieve will provide an attractive and considerably lower-carbon alternative to much domestic and other short-haul aviation. Even the journey time savings from Phase 1 of High Speed 2 could encourage modal shift from air to rail and this effect will grow as the network expands.

Developing new technology

3.29 The UK has a strong track record in aviation research, design and manufacturing and is well placed to influence and exploit emerging

[70] *Meeting the UK aviation target – options for reducing emissions to 2050*, Committee on Climate Change, December 2009, http://www.theccc.org.uk/reports/aviation-report
[71] *Join the One in Five Challenge,* WWF
http://www.wwf.org.uk/how_you_can_help/get_your_business_involved/one_in_five_challenge/

global markets in low carbon technologies as a whole new generation of aircraft is developed.

3.30 Generally fuel represents around 30 per cent of an airline's operating costs.[72] Pressure from airlines to reduce these costs is driving competition between manufacturers to develop more fuel efficient, and hence more carbon efficient aircraft, which is good for business, good for consumers and good for the environment.

3.31 Since the 1970s, technological advances have reduced fuel burn, and therefore CO_2 emissions, by 70 per cent per passenger kilometre. [73] In the last 10 years, although air traffic has increased by 45 per cent, the demand for jet fuel has increased by only three per cent.[74] Technological innovation needs to continue to deliver significant improvements in air craft performance

3.32 The UK aerospace industry is working on a number of research and technology programmes, including some with support from the UK Government and others with European funding support. These programmes generally involve collaboration between manufacturers and their supply chains. The Government will continue to support and encourage such technological developments through industry led projects.

Research and technology programmes

Key collaborative programmes involving Government support include:

- Airbus led programmes on Integrated Wing, Next Generation Composite Wing, and Electric Landing Gear, with private and public investment totalling around £140 million;
- Rolls-Royce led programmes on Environmentally Friendly Engine, Environmental Lightweight Fan and Strategic Investment in Low Carbon Engine Technologies, with investment totalling around £220 million;
- a Goodrich led programme on Advanced More Electric Systems, with investment totalling around £4 million; and
- an AgustaWestland-helicopters led programme on Rotor Embedded Actuator Control technology, with investments totalling around £9 million.

[72] *Fact Sheet, IATA,* December 2011
http://www.iata.org/pressroom/facts_figures/fact_sheets/Pages/fuel.aspx
[73] *Fact sheet*, IATA, December 2011,
http://www.iata.org/pressroom/facts_figures/fact_sheets/pages/environment.aspx
[74] *Delivering the Future - Global Market Forecast 2011-2030*, Airbus,
http://www.airbus.com/company/market/forecast/passenger-aircraft-market-forecast/

3.33 The Government also provides tax relief for certain research and development activities. Aerospace manufacturers are collaborating in complementary European programmes through the EC Framework 7 Programme and the Clean Sky Joint Technology Initiative, which are providing further access to funding.

3.34 The Department for Business, Innovation and Skills (BIS), in partnership with business, academia and other stakeholders, is working through the Aerospace Growth Partnership (AGP) to identify, and develop collaborative research projects, for the technologies that will best position the UK aerospace industry to secure sector growth, including increased levels of high value work on future aircraft programmes. This research is consistent with technology roadmaps developed through an earlier National Aerospace Technology plan.

Biofuels

3.35 Sustainable biofuels have a role to play in reducing CO_2 emissions from transport, particularly in sectors such as aviation where there are limited alternatives to fossil fuel. It is essential that biofuels lead to a worthwhile reduction in full life-cycle CO_2 emissions, taking into account indirect land use change (ILUC), where production of biofuel from crops grown on existing agricultural land results in the displacement of production on to previously uncultivated land. The aviation sector will be competing with other sectors for limited sources of such sustainable biomass.

3.36 The inclusion of aviation within the EU ETS already provides an incentive to develop sustainable biofuels as an alternative to kerosene. The Government needs to provide the right framework to ensure that only sustainable biofuels are used. We recently published a co-ordinated, evidence-based bio-energy strategy[75] which looks at the best use of available biomass resources for a long term transition in technology. The European Commission is also due to come forward with proposals to address ILUC at a European level.[76] Once we have a better understanding of these issues we will be in a better position to decide where Government intervention may be justified and the extent to which biofuels offer a way forward.

[75] *UK Bioenergy Strategy*, Department of Energy and Climate Change, 2012, http://www.decc.gov.uk/publications/basket.aspx?filetype=4&filepath=11 per cent2fmeeting-energy-demand per cent2fbio-energy per cent2f5142-bioenergy-strategy-.pdf#basket

[76] The UK considers the introduction of 'ILUC factors' applied to feedstock groups, in both the Renewable Energy Directive and the Fuel Quality Directive, to be the most appropriate response to the risk posed by ILUC. This should be accompanied by exemptions for biofuels that can demonstrate that they were produced in a way to have 'low ILUC risk'. 'ILUC factors' is the commonly used name for the approach whereby an estimate of ILUC emissions from biofuel use is included in the calculation of GHG savings

Better Information

3.37 Providing consumers with better information to inform their choices can have a powerful effect on corporate behaviour. Many organisations now produce corporate responsibility reports which include the action they are taking to reduce their emissions. A recent report by Pricewaterhouse Coopers (PwC),[77] which looked at reports produced by 46 airlines worldwide, found some encouraging trends, including an increase in the number of airlines reporting. However, disappointingly, the report also noted that around a third of the airlines studied produced no reports and that the quality of reporting from those that did was variable.

3.38 The Government strongly supports greater transparency. We are proposing new information powers for the CAA in the Civil Aviation Bill currently before Parliament. If enacted, these will provide scope to increase and improve the quality of information available to the public on the environmental effects of civil aviation in the UK and measures taken to limit them, so that environmental performance can become a factor informing consumer decisions. The new information powers for the CAA are further discussed at paragraph 5.7.

Adapting to future climate change

3.39 Aviation faces a number of challenges from our changing climate. In 2011 the CAA, NATS (The UK's air navigation service provider) and ten airports produced climate change adaptation reports under the Climate Change Act.[78]

3.40 These reports highlighted future climate variables that may pose risks to the industry including: increases in extreme weather affecting operations; increases in temperature leading to runway damage; increased rainfall posing flood risk and changes in wind patterns affecting air traffic movements.

3.41 Evidence suggests that the industry is already taking action including embedding the consideration of climate change in business planning and risk management processes. Further research is required to investigate timescales, investments and interdependencies with other sectors.

3.42 The Government strongly supports the need to better understand and manage the risks associated with climate change. It is essential for the

[77] *Building trust in the air: Is airline corporate sustainability reporting taking off?,* PWC, November 2011, http://www.pwc.com/en_GX/gx/sustainability/assets/pwc-airlines-cr.pdf

[78] http://www.defra.gov.uk/environment/climate/sectors/reporting-authorities/reporting-authorities-reports/

successful long term resilience of the UK‘s aviation industry and its contribution to supporting economic growth and competitiveness.

Questions

- Do you have any further ideas on how the Government could incentivise the aviation and aerospace sectors to improve the performance of aircraft with the aim of reducing emissions?
- Do you have any other comments on the approach and evidence set out in Chapter 3?

Chapter 4: Noise and other local environmental impacts

Context

Impacts on local communities

4.1 The Government recognises that the local environmental impacts of aviation, especially noise, continue to be a key concern for local communities living around airports. We want to strike a fair balance between the negative impacts of noise (on health, amenity and productivity) and the economic benefits of flights.

4.2 Many responding to the scoping document recognised the benefits of aviation to local communities, citing the job opportunities, value to the local economy and the opportunity it affords residents and companies to make flights to business and leisure destinations and to provide rapid transport for cargo. There was a clear consensus that the least acceptable effects are noise disturbance, and to a lesser extent impact on air quality.

4.3 Many responses highlighted the considerable progress made in reducing the number of people affected by aircraft noise. Aircraft have become progressively quieter and operating procedures have been improved which deliver better environmental performance. Over the last 30 years there has been a significant reduction in the number of people living within the 57 decibels[79] contour around Heathrow and Gatwick airports.

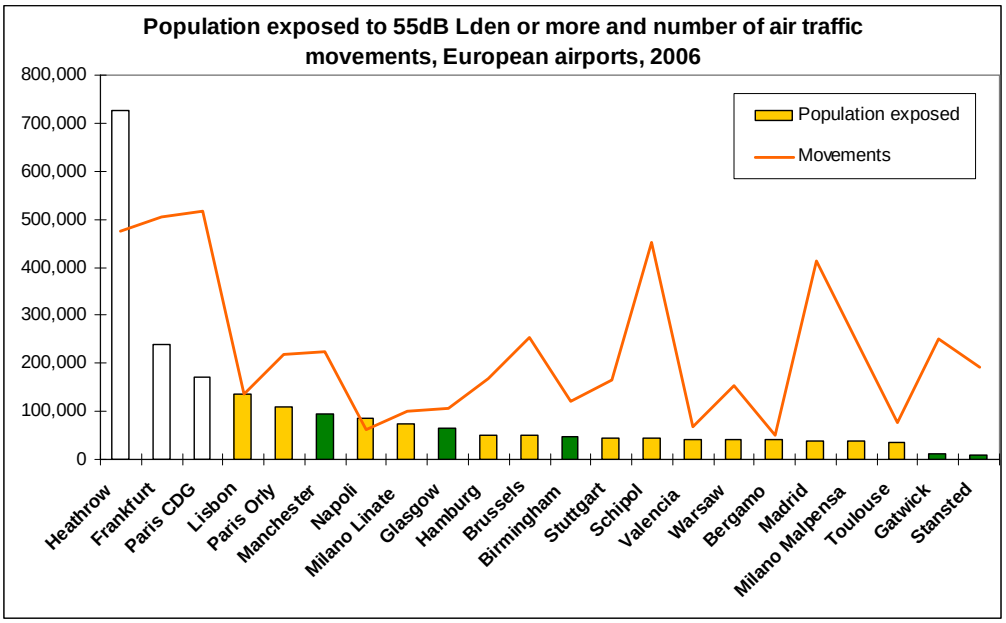
4.4 Nevertheless, noise continues to be a real source of tension between airports and local communities. If airport capacity is allowed to grow, it is essential that the aviation industry continues to tackle its noise impact in order that the benefits are shared between airports and local communities. The Government therefore wants to establish a new policy framework which more strongly incentivises noise reduction and mitigation and also encourages better engagement between airports and local communities and greater transparency to facilitate an informed debate. So, alongside the growth we have argued for in

[79] $L_{Aeq,16h}$ - based on a summer average day. Please see Annex B for further explanation of this metric.

Chapter 2, and going hand in hand with that growth, we want a tougher noise management regime based on:

- independent and transparent monitoring and enforcement;
- realistic noise limits linked to penalties which incentivise noise reduction and reflect the severity of noise disturbance; and
- effective use of non-regulatory instruments such as differential landing fees.

4.5 Whilst noise is a concern at all airports, Heathrow Airport accounts for approximately 70 per cent of people in the UK exposed to average noise from airports above 55 decibels.[80] More than one in four people exposed to this level of noise around European airports lives near Heathrow.[81] In fact, by this measure, Heathrow's noise impact easily exceeds the combined impact of all the other hub airports in Western Europe,[82] despite each having approximately similar numbers of movements.[83]



4.6 Comparing numbers of movements to population exposed to noise, it is evident that Heathrow has a significantly greater noise impact per flight than any other major European airport.

4.7 The Government's opposition to the building of a third runway at Heathrow was, and continues to be, determined in large part by a concern about the scale of the noise impacts at the airport. Despite the improvement in the overall noise climate around Heathrow, which has

[80] L_{den}, based on an annual average day. Please see Annex B for further explanation of this metric.
[81] Based on 2006 noise mapping required at all major EU airports under the EU Environmental Noise Directive (2002/49)
[82] Frankfurt, Paris Charles de Gaulle, Amsterdam Schiphol and Madrid.
[83] These charts are published by the EU commission and are available at: http://circa.europa.eu/Public/irc.env/d_2002_49/library?l=/strategic_december&vm=detailed&sb=Title

been delivered by quieter aircraft, the number of people affected remains significantly higher than around other airports. The Government therefore strongly supports efforts made by Heathrow and its airline community to strive for further noise reductions.

Regulatory framework – the "balanced approach"

4.8 There is a well established regulatory framework set at international and European level within which UK Government aviation noise management policy operates. Annex B sets out the levels at which different controls are set, and how controls are divided between UK players.

4.9 The Government fully recognises the ICAO Assembly "balanced approach" principle to aircraft noise management.[84] The “balanced approach” consists of identifying the noise problem at an airport and then assessing the cost-effectiveness of the various measures available to reduce noise through the exploration of four principal elements which are:

- reduction at source (quieter aircraft);
- land-use planning and management;
- noise abatement operational procedures (optimising how aircraft are flown and the routes they follow to limit the noise impacts); and
- operating restrictions (preventing certain (noisier) types of aircraft from flying either at all or at certain times).

4.10 ICAO encourages States to consider operating restrictions only after the benefits from other elements of the balanced approach have been taken into account.

4.11 The balanced approach is given effect in European law through the Operating Restrictions Directive 2002/30,[85] which establishes rules and procedures with regard to the introduction of noise-related operating restrictions at the busiest EU airports. The principles of the balanced approach can, however, be applied to all airports. On 1 December 2011 the European Commission launched the Better Airports Package[86] which includes a proposal for an EU Regulation on noise which would repeal the current Directive and further harmonise and strengthen EU rules on aircraft noise management and assessment.

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[84] *Assembly Resolution A36-22 (Appendix C),* ICAO, September 2007, http://legacy.icao.int/icao/en/Env2010/A36_Res22.pdf

[85] *Directive 2002/30/EC of the European Parliament and of the Council of 26 March 2002 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports,* 2002, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002L0030:EN:HTML

[86] The European Commission's *Better Airports Package* was launched in December 2011, http://ec.europa.eu/transport/air/airports/airports_en.htm

Further discussion of the potential implications of this proposal is contained in Annex C.

Noise Action Plans (NAPs)

4.12 Under the European Environmental Noise Directive 2002/49 (END),[87] airports covered by the Directive must prepare strategic NAPs, based on previously generated noise maps (contours), and submit these for formal adoption by the Government. The Government works closely with airports in the preparation of these plans, in which airports explain their noise mitigation policy and describe their actions to reduce impacts. These plans are "living documents" underpinning airports' noise management policies.

4.13 The Directive applies to civil airports with over 50,000 annual movements (excluding training flights on light aircraft) and to smaller civil airports whose activities cause noise above a certain level in an "agglomeration" (urban area), with a population of over 250,000. Seventeen airports in England, three in Scotland and two in Northern Ireland currently have NAPs.

4.14 In 2013, a number of other smaller civil airports whose activities affect people in an agglomeration with a population of over 100,000 people will also be required to produce action plans.

Government controls – the designated airports

4.15 Table 2 in Annex B illustrates the relationships of the various actors, showing who sets the controls and who monitors and enforces them.

4.16 The Government has for many years designated Heathrow, Gatwick and Stansted airports for noise management purposes.[88] This means that the Government sets noise controls at these airports. The noise abatement measures currently imposed by the Secretary of State comprise:

- a night noise regime (consisting of movement limits, quota count limits based on the Quota Count system,[89] and a ban on scheduled movement of noisier aircraft);
- departure noise limits;
- specified departure routes known as noise preferential routes (NPRs);

[87] *The Environmental Noise Directive*, 2002, http://ec.europa.eu/environment/noise/directive.htm
[88] Under section 80 of the Civil Aviation Act 1982 for the purposes of sections 78 and 79. Heathrow and Gatwick are currently designated for the purposes of ss 78 and 79 whereas Stansted is designated only for the purposes of s78.
[89] Aircraft are certified by the International Civil Aviation Organisation according to the noise they produce. The Quota Count (QC) system works by awarding points to different aircraft types, according to how noisy they are. The noisier the aircraft type, the more points allocated.

- minimum height requirements after take off;
- continuous descent approach (CDA); and
- requirement to maintain a minimum height when joining the final approach.

4.17 These measures are monitored and reported at a high level as key performance indicators in the airports' environmental performance reports. They are often also discussed at their Airport Consultative Committees ((ACCs) see paragraph 5.14 for discussion of this).

4.18 We note that some Stansted stakeholders have questioned the need for continuing Government regulation of noise at Stansted, arguing that local authorities should play this role. We would welcome any further views on the Government's continuing regulation of noise at the three largest London airports.

Question

- Do you agree that the Government should continue to designate the three largest London airports for noise management purposes? If not, please provide reasons.

Controls at other airports

4.19 At other airports, consistent with the Government's localism policy, we take the view that noise controls should continue to be agreed locally rather than being imposed by central Government. Noise controls at these airports are based on local authority powers to impose planning conditions on new development, EU requirements for airports to develop and implement NAPs following consultation, voluntary arrangements through the influence of the ACCs or a combination of these measures. Most airports of significant size have measures in place which are similar to those set by the Government at the designated airports.[90]

Policy objectives

4.20 The Government's policy on noise is set out in the *Noise Policy Statement for England* (NPSE)[91]. This contains a long term vision of promoting good health and good quality of life through the effective management of noise in the context of Government policy on sustainable development. It is supported by three aims relating to health and quality of life: avoiding significant adverse impacts where possible; mitigating and minimising adverse impacts that do occur; and

[90] Made under powers in section 38 A-38 C of the 1982 Civil Aviation Act (as amended).
[91] *Noise Policy Statement for England,* DEFRA, March 2010, http://www.defra.gov.uk/environment/quality/noise/npse

where possible, contributing to an improvement in health and quality of life. Comparable principles apply for other parts of the UK.

4.21 There are a number of direct and indirect links between exposure to noise and health outcomes such as stress, heart attacks and other health issues. The Department of Health (DoH) recognises this in its recently published framework on public health outcomes,[92] where one of the supporting indicators is the percentage of population affected by noise.

4.22 The existing high-level policy objective on aircraft noise, set out in paragraph 3.11 of the previous administration's 2003 white paper, *The Future of Air Transport*[93] (2003 Air Transport White Paper) is an **objective to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise**.

4.23 If aviation is to be allowed to grow in a sustainable manner, it is important that its environmental impacts are measurable so that these can be limited and mitigated as appropriate. A measurable objective on noise is therefore vital as evidence to support decisions on any future growth.

4.24 The existing objective is consistent with the NPSE aim of avoiding significant adverse impacts on health and quality of life and we propose to retain it.

4.25 Although a technical matter, the question of how to describe the noise impact is a very relevant aspect of Government policy. The previous Government's policy was to use the 57 dB $L_{Aeq,16h}$ contour as the average level of daytime aircraft noise marking the approximate onset of significant community annoyance. This recognises that the relationship between noise and annoyance is of course not an exact one, and varies according to individuals and locations. An explanation of the noise metrics commonly used is at Annex B (Table 1). In practice this has meant that, routinely, contours have been produced down to 57 dB $L_{Aeq,16h}$ at many airports and this value has also been used in planning decisions.

4.26 However, we note that many stakeholders in their response to the scoping document argued that people were now more sensitive to aircraft noise and that a 57 dB $L_{Aeq,16h}$ threshold was too high. The Government acknowledges research in recent years[94] which suggests that the balance of probability is that people are now relatively more

[92] *Healthy lives, healthy people: Improving outcomes and supporting transparency*, DoH, January 2012, Http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_132358

[93] *The Future of Air Transport*, DfT, December 2003, http://webarchive.nationalarchives.gov.uk/+/http://www.dft.gov.uk/about/strategy/whitepapers/air/

[94] *Attitudes to Noise from Aviation Sources in England (ANASE)* report, commissioned by DfT, 2007 and *Good practice guide on noise exposure and potential health effects*. EEA Technical Report No. 11/2010, European Environment Agency, 2010

sensitive to aircraft noise than in the past, though there is insufficient evidence to indicate a clear threshold noise level at which it can be said with any certainty that there is an "onset of significant community annoyance". We recognise that people living outside the 57 dB $L_{Aeq,16h}$ contour are also affected by aircraft noise and that for some, the annoyance may be significant. Indeed many complaints about aircraft noise come from outside the 57 dB $L_{Aeq,16h}$ contour, reflecting the fact that frequency of movements can be a source of annoyance for some people living in areas exposed to lower average levels of noise across the whole day.

4.27 As there is no conclusive evidence on which to base a new level, for the present time we are minded to retain the 57 dB $L_{Aeq,16h}$ contour as the average level of daytime aircraft noise marking the approximate onset of significant community annoyance. We would welcome views on this.

4.28 However, in order to facilitate improved monitoring, to provide more information about noise impacts, and to recognise that people living outside the 57 dB $L_{Aeq,16h}$ contour are also affected by aircraft noise, we would also welcome views on whether it would be useful to ensure that the contour maps produced annually to show noise exposure around the airports designated for noise management purposes are drawn to a lower level. We consider that there are two options: either to use L_{den} and produce contours down to 55 dB(A), which aligns with the level to which airports are required to map noise exposure under the END, or to continue to use $L_{Aeq,16h}$ but produce contours down to 54 dB along with the concurrent production of night noise contours ($L_{Aeq,8h}$). These options are considered in more detail in Annex D and we are consulting on the advantages and disadvantages of each option.

Questions

- Do you agree with the Government's overall objective on aviation noise?
- Do you agree that the Government should retain the 57 dB $L_{Aeq,16h}$ contour as the average level of daytime aircraft noise marking the approximate onset of significant community annoyance?
- Do you think that the Government should map noise exposure around the noise designated airports to a lower level than 57 dB(A)? If so, which level would be appropriate?

Action to achieve our objectives

4.29 This section takes each of the four elements of the balanced approach in turn and describes current policy with proposals for strengthening this where appropriate.

Reduction at source (quieter aircraft)

4.30 Most of the improvements in noise performance have come from reducing noise at source. The UK actively contributes to technical work on setting international noise standards for new aircraft types within the Committee on Aviation Environmental Protection (CAEP), which assists ICAO in formulating new policies and adopting new standards on aircraft noise and aircraft engine emissions. Through ICAO we continue to develop stretching technology goals for industry to reduce noise over the medium and long term. We also have the ability to influence and incentivise technological improvements through our own domestic policies, such as the night noise restrictions at Heathrow which have influenced the noise performance design of the Airbus A380 and the decisions of airlines to invest in the quietest aircraft.

4.31 We expect the environmental performance of aircraft to continue to improve. The aerospace and air transport sectors have set themselves aircraft noise related goals at both European and national level.

4.32 The European Commission invited key stakeholders of European aviation and the aerospace community to come together to develop a vision for Europe's aviation system and industry by 2050. In *Flightpath 2050,*[95] they set a noise-related goal whereby the perceived noise emission of flying aircraft is reduced by 65 per cent relative to the capabilities of typical new aircraft in 2000.

4.33 At the UK level, the strategy of the industry coalition, Sustainable Aviation, sets out the collective approach of UK aviation and pledges a 50 per cent reduction in perceived noise levels in 2020 compared to 2000. The Government welcomes Sustainable Aviation's intention to develop a 2050 road map for noise which they intend to publish later this year.

Land-use planning and management

4.34 In line with the NPSE, the NPPF says that planning policies and decisions should aim to avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development, and mitigate and reduce to a minimum other adverse

[95] *Flightpath 2050: Europe's Vision for Aviation*, European Commission, 2011, http://ec.europa.eu/transport/air/doc/flightpath2050.pdf

impacts on health and quality of life arising from noise from new development, including through the use of conditions. It also states that the planning system should prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of noise pollution. Consistent with this framework, local planning authorities therefore have a responsibility to ensure that this element of the balanced approach is implemented in the context of their local plan policies, including any on noise. Aircraft noise measurements and the impact of the NPPF is considered further in Annex D.

Noise envelopes

4.35 The scoping document sought views on the concept of setting a noise envelope in respect of larger airports where growth might lead to a significant increase in noise impacts. The aim of such an approach would be to limit the number of people significantly affected by noise from aircraft operations, to incentivise noise reduction and to share the benefits of technological improvements by allowing growth in return for improvements in the noise climate.

4.36 Although some were against the concept, many responses to the scoping document welcomed the concept in principle. The certainty which noise envelopes could give the local population in terms of how they would be impacted by noise in the future was welcomed although, understandably, greater clarity about how they would work in practice was sought.

4.37 There are a number of ways of designing a noise envelope. An envelope could be based on restricting the inputs that contribute to noise, such as aircraft movements or passengers. As many stakeholders pointed out, a number of airports already have this form of noise envelope through the existence of a cap on movements or passenger numbers.[96] These do not explicitly set out to tackle noise, as they do not take account of the noise footprint of individual aircraft, nor the number of people affected by the noise. There are potentially better means of representing the levels of noise that local residents actually experience and have concerns about; equally, such simple caps provide no incentive for airlines to use quieter planes which would reduce the number of people affected by noise over time. There was a stark difference in views on whether an envelope should include a cap on movement numbers.

4.38 The Government is therefore interested in exploring other more sophisticated ways of articulating noise envelopes that respond more closely to the day-to-day experience of those affected by noise. An envelope could alternatively be based on measuring the area exposed

[96] For example, a limit of 480,000 annual traffic movements was one of the conditions imposed on the approval of planning permission for Heathrow Terminal 5.

to the noise impact. For example, one of the planning conditions for the construction of Heathrow Terminal 5 is that the 57 dB $L_{Aeq,16h}$ contour should not exceed 145 km^2 from 2016 onwards. Noise contours do not have a sharp cut-off, so a reduction in the contour area reduces the noise experienced by those both within and outside the contour. Setting a limit on the contour area controls the extent of the noise impact but does nothing to minimise the number of people affected within the contour area.

4.39 A third form of noise envelope is one which reflects the impact created by noise in terms of the number of people exposed to a certain level of noise. In line with the ICAO balanced approach (see paragraph 4.9), the land use planning system would also have a role to play in the implementation of such an envelope.

4.40 It would also be possible to create an envelope which combines metrics. For example, measurement of the number of people exposed to a certain level of noise divided by the number of air transport movements provides a relative measure of noise efficiency. In effect it assesses the amount of noise detriment per flight.

4.41 In the case of any new national hub airport or any other airport development which is a nationally significant infrastructure project,[97] the Government is likely to develop a National Policy Statement (NPS) to set out the national need for such a project. The Government would determine principles for the noise envelope in the NPS having regard to the following:

- The Government's overall noise policy to limit and, where possible, reduce the number of people significantly affected by aircraft noise.
- Within the limits set by the envelope, the benefits of future technological improvements should be shared between the airport and its local communities to achieve a balance between growth and noise reduction. So, for example, a proposal to increase an existing cap on flight numbers should be accompanied by a review of the limits contained in the envelope to take account of emerging developments in aircraft noise performance and to ensure that benefits continue to be shared over the longer term.
- The objective should be to incentivise airlines to introduce the quietest suitable aircraft as quickly as is reasonably practicable.

Question

- Do you agree with the proposed principles to which the Government would have regard when setting a noise envelope at any new

[97] A nationally significant airport infrastructure project is defined in the Planning Act 2008 as an increase in capacity of at least 10 million passengers per annum or at least 10,000 air cargo transport movements per annum.

national hub airport or any other airport development which is a nationally significant infrastructure project?

4.42 Where there is an overall increase in significant noise disturbance at an airport or the scale of the noise impact changes, appropriate compensation should be offered (see paragraphs 4.80-4.82 below).

4.43 At all other airports where additional airport capacity is being considered, local communities are encouraged to work with airports to develop acceptable solutions which are proportionate to the scale of the noise problem and be involved in discussions about the acceptable limits of noise. The Government believes that the process of designing and consulting on a noise envelope could be a suitable mechanism to achieve this. Within this envelope the Government would then expect to see a review conducted at regular intervals to ensure that the benefits of improving technology could be shared between the airport and local residents as described in paragraph 4.41.

4.44 Acknowledging that greater clarity was requested on how envelopes would work, we will ask the CAA to produce further guidance on how the concept of a noise envelope could be used.

Noise abatement operational procedures

Airspace

4.45 The routes used by aircraft and the height at which they fly are two significant factors that affect the noise experienced by people on the ground. The design and use of UK airspace is the responsibility of NATS and regulated by the CAA in accordance with directions given to it by the Secretary of State under section 66 of the Transport Act 2000. The Secretary of State also has the power under section 70(2)(d) of the Transport Act 2000, to give the CAA guidance on environmental objectives relating to the exercise of its air navigation functions. Guidance was published in 2002 (the 2002 guidance).[98] The Government will be consulting on updated Guidance following the adoption of the final Aviation Policy Framework.

4.46 The Government is aware that there are opportunities to reduce noise in the longer term arising from the CAA's FAS and the review of London airspace. This work will bring into sharp focus the possible trade offs, noted in the scoping document, between noise and CO_2 and other local environmental impacts.

[98] *Guidance to the Civil Aviation Authority on environmental objectives relating to the exercise of its air navigation functions*, Department for Transport, Local Government and the Regions, January 2002, http://assets.dft.gov.uk/publications/guidance-to-the-civil-aviation-authority/guidance-2002.pdf
An addendum was issued in 2012:
http://assets.dft.gov.uk/publications/air-navigation-guidance-environmental-objectives/addendum.pdf

4.47 Responses to the scoping document made clear that noise was the main environmental consideration for people living near airports. As mentioned in Chapter 3, industry already has a strong incentive to develop new technologies that improve fuel efficiency and, as a consequence of this, reduce carbon emissions. This is less true for noise and will mean that industry would naturally tend to prioritise carbon over noise because of efficiency gains.

4.48 Therefore, as a general principle, and where this does not conflict with the Government's obligations to meet mandatory EU air quality targets, the Government believes that at the local level, individual airports working with the appropriate air traffic service providers, should give particular weight to the management and mitigation of noise in the immediate vicinity of airports. Any negative impacts that this might have on CO_2 emissions should be tackled as part of the UK's overall strategy to reduce aviation emissions, such as the EU ETS. This principle will be particularly significant when considering changes to procedures such as noise preferential routes or the introduction of new procedures such as continuous climb departures. Obviously we would still expect any airspace change proposal to include a thorough assessment of all environmental impacts.

4.49 Current policy, in the 2002 Guidance, states that the balance of social and environmental advantage lies in concentrating aircraft taking off from airports along the fewest possible number of specified routes and that these routes should avoid densely populated areas as far as possible. In the case of Heathrow, Gatwick and Stansted the policy is given effect by the Secretary of State's requirement for most departing aircraft to follow the NPRs, normally up to a height of 4,000 feet. Track-keeping compliance is monitored and reported regularly by the noise designated airports. Similar rules are in place at other airports.

4.50 The majority of responses to the scoping document were in favour of maintaining a policy of concentration. The Government agrees that changes to established routes should not be made in such a way that more people are significantly affected by noise.

4.51 NPRs at the designated airports have been in place for many years. They are widely supported by scoping document respondents, but a number of industry stakeholders have pointed out that there is scope for radical redesign to reflect the capability of modern aircraft and navigational technology. The Government expects NATS and the CAA to look at the scope for improving the efficiency of long-standing NPRs, taking into account the overall noise policy objective to limit and, where possible, reduce the number of people significantly affected by aircraft noise.

Creating respite

4.52 For those who are already affected by noise, and especially where frequency of movements has increased over time, the Government believes that it is important to give respite wherever feasible. This principle has been a longstanding one at Heathrow, which practises runway alternation in order to offer periods of respite, a principle for which the Government has made clear its strong support.

4.53 The Government is aware that there is much good work being done by the industry to explore opportunities for providing respite. Examples include:

- joint work by industry and non-governmental organisations to explore opportunities to provide more predictable patterns of overflight within existing NPRs;
- varying the point where aircraft join final approach before landing, when this can be achieved without compromising safe operation. This could address the problem of approach noise for which there are no preferential routes and where the problem is as much about frequency as it is about overall noise levels; and
- reducing stacking, where several aircraft fly the same holding pattern, separated vertically by at least 1,000 feet, whilst they wait for clearance to land, in the congested South East England airspace system. Although aircraft using stacks are at relatively high altitude, their noise may nevertheless be perceptible. The more serious impact of stacks is that their existence limits options for both approach and departure routes. We would also expect reduced stacking to produce CO_2 benefits.

4.54 The Government strongly supports such work and encourages airports and their airline communities to work with NATS and CAA to consider creative solutions to protect and enhance respite.

4.55 The measures being tested under the operational freedoms trial at Heathrow Airport (see paragraphs 2.30-2.31) are expected to improve resilience and could also reduce the incidence of unscheduled night flights, reduce stacking and cut carbon emissions. However, there is some limited redistribution of noise when these measures are deployed. The purpose of the trial is to better understand the benefits and impacts of using such measures. In particular, some communities will experience occasional noise during the expected respite period due to the use of both runways for arrivals or departures in limited circumstances. The trial is being overseen by the CAA and illustrates the difficult trade-offs which can arise between respite and other benefits. Once the trials are completed, the results will be fully assessed and a consultation will be carried out before any decision is taken to adopt a long term operational freedoms regime.

Questions

- Do you agree that noise should be given particular weight when balanced against other environmental factors affecting communities living near airports?
- What factors should the Government consider when deciding how to balance the benefits of respite with other environmental benefits?

Rural areas

4.56 A number of responses to the scoping document made the point that aircraft noise in the countryside was relatively more annoying than in urban areas, due to lower background noise levels.

4.57 The 2002 guidance states that the CAA should pursue policies that will help to preserve the tranquility of the countryside where this does not increase significantly the environmental burdens on more densely populated areas.

4.58 This effectively creates a hierarchy whereby the first priority is to minimise overflight of people in more densely populated areas. Where there is no conflict with this objective, the priority is to preserve the tranquillity of the countryside. Within the countryside, in common with other relevant authorities, the CAA has legal duties to have regard to the purposes of National Parks and Areas of Outstanding Natural Beauty[99] and must therefore take these into account when assessing airspace changes.

4.59 As noted above, final policy on airspace, respite and rural areas will be given effect in new guidance to the CAA on environmental objectives relating to the exercise of its air navigation functions, which will be the subject of a separate consultation (see paragraph 4.45).

Operating restrictions

Night noise

4.60 The primary operating restrictions mandated by the Government relate to those on night movements at the airports designated for noise management purposes. Noise from aircraft operations at night is widely regarded as the least acceptable aspect of aircraft operations. Responses to the scoping document confirmed this view. Consistent with our overall policy objective on noise, we wish to limit and where possible reduce the number of people significantly affected by night flights.

[99] *Duties on relevant authorities to have regard to the purposes of National Parks, Areas of Outstanding National Beauty (AONBs) and the Norfolk and Suffolk Broads: Guidance Note*, DEFRA, 2005, http://archive.defra.gov.uk/rural/documents/protected/npaonb-duties-guide.pdf

4.61 The Government expects industry to strive for continuous improvement in mitigation of noise from night flights through use of best in class aircraft, best practice operating procedures, seeking ways to provide respite wherever possible and minimising the demand for night flights.

4.62 Night flights take place for different reasons. They are undoubtedly crucial to the business model of the express freight industry. However, the effect of time zone differences and any operating restrictions at the originating airport can mean that long-haul flights departing in the evening, particularly from South East Asia, arrive very early in the UK. In the summer, there are holiday flights in the night period which maximise capacity and efficient fleet usage at otherwise busy airports. The Government is mindful of the need to balance the economic benefits of night flights with residents' need to have a decent night's sleep, particularly at Heathrow given the large number of people living in the vicinity of the airport, and under flight paths.

4.63 As a general principle the Government believes that the total cost airlines face for night slots should reflect the full costs imposed on society, including from noise. We are aware that current landing fees for night slots can be considerably less than for daytime slots and this can undermine any incentive offered by charges which reflect the noise performance of aircraft.

4.64 The current night restrictions at the designated airports were set in 2006 and were due to expire in October 2012. As a first step to replacing this regime, we will launch a first stage consultation later this year which will include a review of the costs and benefits of night flights, including an expert assessment from the CAA of current literature on aviation night noise health impacts. It will also consider the 2011 night noise contours required under the END and will seek detailed evidence on the effectiveness of the current regime and on airlines' fleet replacement plans.

4.65 This will be followed by a second consultation in 2013 which will allow our proposals to take account of the final Aviation Policy Framework, and the outcome of the Heathrow operational freedoms trial. The new regime will also need to reflect any changes to the other noise control measures at the designated airports as well as any changes to penalties, landing fees and monitoring arrangements.

4.66 To allow sufficient time to enable this detailed work to take place, including the requirements stipulated under the European law on noise-related operating restrictions, the Government announced in March 2012[100] that we would therefore be extending the current regime until October 2014, based on the movement and quota limits for the last two seasons of the current regime (winter 2011-12 and summer 2012). We will take into account this freeze in quota limits when setting the next

[100] http://www.dft.gov.uk/news/statements/villiers-20120326a/

regime and will expect airlines to continue to improve their environmental performance during this interim period.

4.67 The new proposals will be subject to rigorous impact assessment and we cannot prejudge this work. Nevertheless, we would expect the new regime to drive the behaviours and outcomes listed in paragraph 4.62. As the current restrictions have been in place since 2006, we would expect to see a new regime take account of recent improvements in airframe and engine technology and those expected in the future.

Noise limits, monitoring and penalties

4.68 Local communities need to have confidence that airport owners take noise impacts seriously. Establishing realistic departure noise limits linked to tougher penalties and enhanced noise monitoring is key to having a robust approach that both airports and communities can jointly buy into. The Government therefore wishes to see:

- a review of the departure noise limits which have been in place in for many years;
- significantly higher penalties for any breach of limits;
- more transparency and independence in the enforcement of noise limits; and
- more comprehensive monitoring and publicly available data.

4.69 The Government sets limits for departure noise at the designated airports and these are a form of operating restriction. While the night noise restrictions are reviewed on a regular basis (approximately every six to eight years), we are aware that the departure noise limits have not been reviewed since the 1990s. In practice there are relatively few infringements and therefore airports issue few penalties. Although this is positive, it may also indicate that modern aircraft have the potential to attain lower limits.

4.70 Based on positive feedback from stakeholders, we will maintain the Aircraft Noise Management Advisory Committee (ANMAC)[101] as the appropriate forum for considering these noise limits, as well as the other controls at the designated airports (see paragraph 4.16 above). The Government will task ANMAC now to review these controls to ensure they remain appropriately balanced. Any proposals for changing these controls would be subject to separate consultation, as would any changes to noise preferential routes in line with normal airspace change procedures.

[101] ANMAC advises the Department for Transport on technical and policy aspects of aircraft noise mitigation and track-keeping policies at Heathrow, Gatwick and Stansted airports. Its membership includes representatives of Heathrow, Gatwick and Stansted, those airports' consultative committees, the CAA, NATS and the Department for Environment, Food and Rural Affairs. Its membership will be kept under review to ensure it remains appropriate.

4.71 Noise designated airports have the power to fine airlines which breach any of the noise abatement requirements imposed by the Secretary of State.[102] Such airports are also required to pay an amount equal to the penalties received for the benefit of people living in the area in which the airport is situated.[103] Similar powers apply to other airports for the purpose of enforcing their own noise control schemes.[104] The intention is to ensure that the airport cannot retain money raised by the penalty scheme and that the local community benefits. The Secretary of State also has powers to direct designated airports to establish, amend or revoke a penalty scheme.[105] In practice penalty schemes only exist for breaches of the departure noise limits.

4.72 Penalties for breaches of departure noise limits have for some time been set at relatively low levels: £500 if up to three decibels over the limit and £1,000 beyond this. We are aware that airports have plans to review these penalties, and the Government believes that they should consider setting them much higher to reflect the cost to local communities of aircraft breaching the limits. The Government also believes that there is a risk of a conflict of interest when the airport is responsible for enforcing the regime which affects its own customers. This is an area where greater transparency and the role of an independent body would help. Consequently, the Government is proposing a greater role for the CAA and ACCs in overseeing noise management at airports (see Chapter 5).

4.73 Noise limits apply only to departing aircraft. Following past work by ANMAC it was accepted that CDA is a better way to reduce approach noise rather than imposing arrival noise limits, and CDA has been promulgated as industry best practice since 2006. However, it is clear that for many residents on approach routes to airports, noise disturbance is also a key concern. In order to give reassurance to residents living under approach routes, the Government believes that compliance with CDA and the requirement to maintain a minimum height when joining the final approach should be given a high priority by airports, airlines and air traffic management. The Government will task ANMAC to consider these approach noise procedures as part of its review of the noise controls at designated airports. The Government believes a penalty scheme should also be considered by airports where there are no clear overriding safety reasons for failure to comply with CDA requirements and the requirement to maintain a minimum height when joining the final approach.

4.74 To enable communities to understand noise impacts, the Government would like to see greater investment by airports in noise monitoring, particularly on approach routes where there are fewer monitors

[102] Section 78A of the Civil Aviation Act 1982 (as amended by the Civil Aviation Act 2006)
[103] Section 78A(8) of the Civil Aviation Act 1982
[104] Section 38C of the Civil Aviation Act 1982 (as amended)
[105] Section 78B of the Civil Aviation Act 1982 (as amended)

deployed. The Secretary of State has order making powers to require designated airports to provide noise monitors.[106] Chapter 5 discusses how airports can improve their communication of noise impacts, including better reporting of noise exposure data and the use of additional metrics.

4.75 We will keep these issues under review and take consultation responses into account when we are developing our policy approach to the exercise of these order-making powers at the designated airports. We would also encourage the CAA to consider using its proposed new environmental information, guidance and advice powers to compare and benchmark compliance with noise abatement requirements across the designated airports and airlines using them (see paragraph 5.8).

Questions

- Do you agree with the Government's proposals in paragraph 4.68 on noise limits, monitoring and penalties?
- In what circumstances would it be appropriate for the Government to direct noise designated airports to establish and maintain a penalty scheme?
- In what circumstances would it be appropriate for the Government to make an order requiring designated airports to maintain and operate noise monitors and produce noise measurement reports?

Use of differential landing fees

4.76 A further tool available to airports to encourage the use of quieter (and cleaner) aircraft and reduce inconvenience from aircraft noise[107] is differential landing fees. Airports have powers to set differential landing fees to reflect environmental impacts (and the Government can require them to do so).[108] Many do so, including the three noise designated airports, and we want to see these used appropriately.

4.77 We have only limited evidence on how airports are using landing fees to incentivise the use of the quietest and cleanest aircraft. The Government is keen to ensure that differential landing fees are used effectively, in order to provide a non-regulatory means of incentivising quiet aircraft movements, including at night.

4.78 The Government recognises that differential landing fees tend to be based on the ICAO noise certification classification. These classifications are very wide and without further refinement could be too blunt an instrument for effective implementation. An alternative approach might be to make use of the Quota Count system used to

[106] Section 78(8) of the Civil Aviation Act 1982
[107] Section 38(2) of the Civil Aviation Act 1982
[108] Section 38(4) of the Civil Aviation Act 1982

classify aircraft for the purpose of the night flight regime at the designated airports. However, this would mean that larger aircraft would tend to be penalised relative to smaller ones since their absolute noise footprint is larger.

4.79 The Government will ask the CAA to investigate the use of differential landing fees in order to ensure that airports and airlines are better incentivised to use aircraft that are best in class, and to ensure that the cost of noise disturbance, particularly at night, is sufficiently reflected in these fees.

Question

- How could differential landing fees be better utilised to improve the noise environment around airports, particularly at night?

Compensation schemes

4.80 Current policy,[109] is that the Government expects airport operators to offer households subject to high levels of noise (69 dB $L_{Aeq,16h}$ or more) assistance with the costs of moving. This is reinforced by guidance on the development of NAPs[110] which states that, as a first priority, airport operators should consider what further measures should be taken in areas shown by the noise maps to have residential premises exposed to more than 69 dB $L_{Aeq,16h}$.

4.81 Furthermore, current policy also expects airport operators to offer acoustic insulation (as applied to residential properties) to other noise sensitive buildings, such as schools and hospitals, exposed to medium to high levels of noise (63 dB $L_{Aeq,16h}$ or more) or, where acoustic insulation cannot provide an appropriate or cost effective solution, alternative mitigation measures. Furthermore such compensation should also be offered where households experience medium to high levels of noise and a large increase in noise of three dB L_{Aeq} or more. We continue to expect airports to offer this compensation.

4.82 Airports may wish to use alternative equivalent criteria (for example, based on L_{den} mapping or on the noise generated by the noisiest individual movement), or have additional schemes based on night noise. Schemes should be reasonable and proportionate. Some operators have demonstrated good practice by exceeding the criteria offered elsewhere, for example, where there are relatively few people living in the eligible area. Consistent with improving local engagement

[109] Set out in paragraph 3.21 of *The Future of Air Transport*, DfT, December 2003, http://webarchive.nationalarchives.gov.uk/+/http://www.dft.gov.uk/about/strategy/whitepapers/air/, and guidance on noise action planning

[110] Guidance for aircraft operators, http://archive.defra.gov.uk/environment/quality/noise/environment/documents/actionplan/airport-operators.pdf

(see Chapter 5), the Government believes there is scope for ACCs to have a greater role in this area and for the CAA to share good practice.

Question

- Do you think airport compensation schemes are reasonable and proportionate?

Noise from GA and helicopters

4.83 The noise impact of recreational flying or training is clearly different from that of commercial flights, but the Government nevertheless recognises that this can be disturbing to those who are regularly affected.

4.84 It has been the policy of successive Governments that local environmental issues are best resolved at local level wherever possible. It would not be appropriate for the Government to intervene by exercising powers under section 78 of the Civil Aviation Act 1982 to set noise controls at small aerodromes. Industry has developed codes of practice[111] and the CAA has produced guidance.[112]

4.85 We would encourage the GA sector and the CAA to review their respective best practice and guidance to reflect changes to the policy adopted in the final Aviation Policy Framework. We would also encourage the sector to monitor compliance with its codes of practice.

4.86 The Government does have the power to specify an aerodrome under section 5 of the Civil Aviation Act 1982. The effect of specification of a particular aerodrome is to place a duty on the CAA in exercising its aerodrome licensing functions to have regard to the need to minimise as far as reasonably practicable any adverse effects on the environment and any disturbance to the public from (among other things) noise attributable to the use of aircraft at the aerodrome.

4.87 The section 5 power has never been used but remains available to Ministers in particular cases of disturbance to the public or environmental damage where a local solution has proved impossible to

[111] For example: *More Considerate Flying*, General Aviation Awareness Council, and *The Civil Helicopter in the Community,* British Helicopter Association, revised May 2008, http://www.britishhelicopterassociation.org/sites/default/files/guideline/pdf/Civil%20Helicopter%20in%20the%20Community.pdf

[112] *Noise Considerations at General Aviation Aerodromes*, CAA, February 2008, http://www.caa.co.uk/docs/7/20080229NoiseConsiderationsAtGAAerodromes-CAAGuidance.pdf and *Recommended Measures to help Reduce the Noise Related Nuisance from Light Aeroplanes*, CAA, September 2004, http://www.caa.co.uk/docs/697/srg_env_00001-01-30902004.pdf

find. It would require changes to secondary legislation[113] before the CAA could give full effect to such a duty.

4.88 The Government is against the use of regulatory solutions where alternatives exist and therefore believes that this power should only be exercised once all other avenues can reasonably be said to have been exhausted. We would welcome views on the Government's approach to section 5 and its potential impact on GA aerodromes.

4.89 Some GA airfields close to large towns will be required under the END to produce noise maps in 2012 as a basis for producing NAPs in 2013. A number of others are required to provide facilities for local consultation (which in practice means having an ACC). Where there is no legal requirement to do either of these, the Government would nevertheless encourage aerodromes to engage with local communities effectively as a matter of good practice. Moreover, the Government would expect local communities to be involved in all such engagement, and would want to see evidence of this happening before exercising its powers under section 5. An assessment of the extent and nature of noise disturbance and a consultation on any proposed measures to address aircraft noise would provide the basis for informed decision-making by the Government and the CAA.

4.90 We received a number of responses on the subject of helicopter noise, particularly in London. Unlike commercial aircraft, helicopters do not fly very high and therefore their noise has the potential to impact on people living along the entire length of their flight path. This means that in an area which experiences a concentration of helicopter movements, there is scope for considerable disturbance. Many people have commented on the relatively greater annoyance from helicopter noise.

4.91 Helicopters must meet internationally agreed noise standards prior to the issue of a Certificate of Airworthiness. While it is possible to regulate airports and aerodromes, in many cases helicopters may not use these facilities. Helicopters are subject to Rules of the Air Regulations, which require minimum heights to be maintained, but there are no restrictions on helicopter movements within uncontrolled airspace. Within the London area, single engine helicopters are required to follow certain routes, though these are designed for safety rather than noise purposes. We would encourage NATS and the CAA to look at these issues overall, as well as in the context of work to review London airspace and we will consider how to address noise from helicopters in our review of the 2002 guidance.

[113] To make the order specifying an airport, and consequential changes to the CAA's aerodrome licensing powers in the Air Navigation Order, in order to reconcile the CAA's obligation to secure a high standard of aviation safety with its duty under section 5.

Questions

- Do you agree with the approach to the management of noise from general aviation and helicopters, in particular to the use of the section 5 power?
- What other measures might be considered that would improve the management of noise from these sources?
- Do you have any further ideas on how the Government could incentivise the aviation and aerospace sector to deliver quieter planes?

Air quality and other local environmental impacts

4.92 Whilst noise is the most obvious local environmental impact of airport operations, airports have a significant impact on other aspects of the local environment, some of which may not be visible.

4.93 Air pollution costs the UK up to £19 billion per annum in terms of reduced life expectancy. Emissions from transport, including at airports, contributes to this. EU legislation sets legally binding air quality limits for the protection of human health. Air pollution is one of the indicators in the DoH's framework on public health outcomes.[114]

4.94 Our policy on air quality is to seek improved international standards to reduce emissions from aircraft and vehicles and to work with airports and local authorities as appropriate to improve air quality, including encouraging HGV, bus and taxi operators to replace or retrofit with pollution reducing technology older, more polluting vehicles. There will be additional air quality (and noise pollution) benefits as the UK progresses to a low carbon economy with the likely increase in the proportion of electric vehicles, and plug-in hybrid vehicles. The Government is committed to achieving full compliance with European air quality standards.

4.95 Around airports, sources of air pollution include aircraft engines, airport-related traffic on local roads and surface vehicles at the airport. The most important emissions are of oxides of nitrogen (NO_x) and particulate matter (PM). As well as impacting directly on public health, air pollutants can combine in the atmosphere to form ozone, which is also a potent greenhouse gas. This is discussed in Chapter 3.

4.96 With regard to aircraft emissions, the DfT actively contributes to the technical work on setting NO_x standards for new aircraft types within

[114] *Healthy lives, healthy people: Improving outcomes and supporting transparency*, DoH, January 2012, http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_132358

ICAO. The latest standard, agreed in 2010, represents a reduction of 15 per cent for large engines compared with the previous standard agreed in 2004. The ICAO framework sets stretching technology goals for industry to reduce NO_x emissions over the medium to long term. We are also contributing to the development of a metric and methodology to underpin a potential non-volatile PM emissions standard.

4.97 Air quality is a material consideration for local planning decisions and aviation policy needs to be consistent both with air quality legislation and local authority action plans and strategies for reducing air pollution. Surface transport impacts need to be included in this consideration. Air quality was raised as a concern by some respondents and we need to ensure that our policy affords appropriate health protection and is consistent with meeting our European legal obligations.

4.98 The Government assesses the UK's compliance with the EU air quality limits and target values. Air quality monitoring is also carried out by local authorities to support their local air quality management objectives. PM limits are largely met, but pressures from increasing population, demands on transport and land use mean that considerable efforts continue to be needed to maintain compliance. Furthermore, as there is no safe limit for human exposure, efforts will continue to be needed to reduce concentrations further. Furthermore, as exposure to particulates at any level has the potential for harm to the environment and health, efforts will continue to be needed to reduce concentrations further, particularly from vehicles.

4.99 The Government, airport operators and neighbouring local authorities all have a role to play in improving air quality around airports. For example, the combination of road and airport traffic at Heathrow makes it a particular hotspot. The Government, its agencies and local authorities work with airport operators to develop low emission surface access strategies through, for example, improving rail access to airports and promoting lower emission vehicles. Airports' Air Transport Forums (ATFs) can also play an important role in this.

4.100 Airport operators have no legal duties in relation to management of air quality but this is not necessarily an impediment to action. For example, Heathrow Airport has recently published its Air Quality Strategy for 2011-2020 which sets out airport operational measures to reduce NO_x levels that contribute to NO_2 concentrations.

4.101 In addition to Heathrow, we need to be vigilant with regard to air quality issues around other busy airports served and surrounded by high levels of road traffic. These airports have plans in place to continue to improve air quality performance and Government and local authorities will continue to monitor this.

4.102 As large sites which consume resources and emit waste, airports also have an impact on other aspects of the local environment such as water, waste management and habitat, through for example, de-icing of

aircraft and runways, fuel handling and storage or the production of on-site heat or power. In England and Wales, where these activities produce waste, lead to discharges to local watercourses or groundwater or are carried out using activities specified in the Environmental Permitting Regulations 2010[115], airports may require a permit from the Environment Agency or local authority. The permits contain conditions to protect the environment and people, implement appropriate EU Directives and, where necessary, require the site operator to carry out monitoring.

4.103 As paragraph 4.41 indicates, it is likely that any proposals for a new hub airport or nationally significant infrastructure would be taken forward through an Airports NPS. This would take a similar approach to existing NPSs and be consistent with the Government's stated policies on sustainability and environmental protection. Loss of habitats, species, landscape and built heritage, and significant impacts on water resources and ecosystems would only be advocated where there were no feasible alternatives and the benefits of proposals clearly outweighed those impacts. Any unavoidable impacts would be mitigated or compensated for.

4.104 The policy aim of looking for the least environmentally damaging solutions to maintaining sufficient airport capacity is still an imperative. Our separate Call for Evidence on maintaining the UK's international aviation connectivity, which we intend to publish later this year, will make clear that environmental sustainability, including protection of habitats, species, landscape and built heritage, is one of the factors which respondents should aim to address.

Questions

- Do you believe that the regime for the regulation of other environmental impacts at airports is effective?
- Do you think that noise regulation should be integrated into a broader regulatory framework which tackles the local environmental impacts from airports?

[115] *The Environmental Permitting (England and Wales) Regulations*, 2010, http://www.legislation.gov.uk/uksi/2010/675/contents/made

Chapter 5: Working together

The importance of local collaboration

5.1 Collaboration and transparency are important at every level, international, national and local. The focus of this chapter is on applying these principles more effectively at the local level, because we recognise that what happens around airports really matters to the communities who live and work there, and a national aviation policy can only be successful if it provides a sensible approach to addressing the concerns of communities.

5.2 There is currently a range of mechanisms for airports to engage with key stakeholders in the local area and beyond, including ACCs, airport master plans, airport transport forums (ATFs) and airport surface access strategies (ASASs). Responses to the scoping document showed that there were many examples of good practice across the country where local stakeholders are working well together. Overall existing mechanisms were seen as useful, but local community groups in particular felt there was room for improvement.

5.3 **Our objective is to encourage the aviation industry and local stakeholders to strengthen and streamline the way in which they work together.** We recognise that local stakeholders have the experience and expertise to identify solutions tailored to their specific circumstances, a point made by a number of scoping document respondents. We therefore want to encourage good practice and are not proposing a "one size fits all" model for local engagement.

5.4 However, we think there is considerable scope to enhance the existing tools for local engagement with the aim of improving the quality of information produced, increasing the breadth of representation, avoiding duplication of activity and reducing the consultation burden on all concerned.

5.5 We therefore recommend that airports, in partnership with local communities:

- take the opportunity to review the membership and terms of reference of their committees to ensure that local interests are fully represented and that there is no duplication of activity of committees;

- review their consultative timetables, for example for master plans and NAPs, with a view to aligning these where possible and reducing the consultative burden on all concerned;
- review the extent and detail of information that is published and set out clearly the methodology used. Airports should provide transparency and ensure that sufficient relevant information and opportunities for consultation reach a wide audience; and
- combine their ASASs into their published master plans to ensure a joined-up approach and make it easier for people to access information about the airport's plans.

Improving existing arrangements

5.6 This section outlines the current position, and makes suggestions for developing and improving existing engagement structures.

Improving Information

5.7 The Civil Aviation Bill will give the CAA a role in promoting better public information about the environmental effects of civil aviation in the UK, their impact on health and safety, and measures taken to mitigate adverse impacts. The CAA will also be able to produce guidance and advice for the industry with a view to reducing, controlling or mitigating the adverse effects of civil aviation in the UK. The new powers will be supported by a provision which enables the CAA to conduct or commission research in support of these functions.

5.8 Our legislative proposals will require the CAA to consult on and publish a statement of policy on its exercise of these new functions, which will give the industry, interest groups and communities the opportunity to influence the use that the CAA makes of them. When it is developing its policy statement we will ask the CAA, under its proposed new information powers, to consider how it can play a more active role in ensuring airports publish environmental information which is accessible (including to people living in the vicinity of the airport) and in a format which is useful to passengers when they make their choices. It is not for the DfT to prejudge how the CAA would use its new powers. However, examples of where it could be helpful for the CAA to publish information, guidance and advice on environmental impacts include in relation to noise, air quality, and biodiversity, surface access emissions and public transport access.

5.9 We are conscious that debates about the use of different noise metrics may seem overly academic to many people and that there are broader questions about how noise information is made accessible to local communities.

5.10 While it is important at a national and European policy level to understand average noise exposure around airports, the Government accepts that an average noise figure may not be meaningful for individuals. For example, knowing that an area lies within the 57-60 dB L_{Aeq16h} average daytime noise contour will not necessarily help a person considering buying a house near an airport to understand the typical noise that would be experienced.

5.11 The Government promotes transparency. We believe this can strengthen people's trust in government and encourage greater public participation in decision making. Similarly, in the interests of openness and good community relations, we would encourage airports to make noise exposure data more readily available to the public and, when publishing noise data, to consider using additional metrics to help people to better understand other factors such as frequency and pattern of aircraft movements, the precise tracks used, the average noise of individual aircraft and the highest noise levels which can be expected.

5.12 Many airports already have a web based facility to track flights in real time, with data released subject to a delay for security reasons. Some also have a facility to access noise monitoring data so that the public are able to investigate the noise of individual aircraft movements as necessary. We support such best practice. To be effective, this also requires investment in more noise monitors, as recommended in paragraph 4.74 above.

5.13 The Government expects airports to work with local communities through ACCs to understand their information needs and to meet these needs wherever practical.

Airport Consultative Committees (ACCs)

5.14 There are 51 airports and aerodromes in England and Wales that have been designated[116] under section 35 of the Civil Aviation Act 1982 to provide adequate facilities for consultation with respect to any matter concerning the management or administration of the airport which affects the interests of users of the airport, local authorities and any other organisation representing the interests of persons concerned with the locality in which the airport is situated. In practice ACCs[117] carry out this role and therefore have a clear remit to discuss noise matters, among other things.

5.15 The work of ACCs should recognise the wider role of the airport as an important local employer and influential driver in the local economy, as

[116] SI 1996 No.1392 as amended by SI 2002 No.2421

[117] Membership of ACCs varies, but in line with the legislation will always include representatives from local authorities, local amenity groups (which may include residents groups) and users of the airport (both airlines and passengers).

well as considering the local environmental impacts of an airport including noise. At their best ACCs should therefore be able to act as a forum to assess the concerns of individuals living near the airport who may be exposed to significant aircraft noise and other environmental impacts against the importance of the airport to the local economy and to those who operate it or who use it (whether for commercial or leisure purposes). ACCs may wish to work more closely with LEPs to support the needs of businesses and enterprise in their areas.

5.16 The Government would like to see ACCs play a more effective role, within their current statutory remit. Where appropriate they could provide a forum to discuss planning issues, noise envelopes, or other innovative ideas for noise mitigation, and noise metrics. Establishing a close working relationship with the CAA in any new independent role (proposed at paragraph 5.20) may help in this respect. It would also be consistent with the role envisaged for the CAA's new Consumer Panel[118] which is expected to work more closely with ACCs to strengthen passenger representation at airports.

5.17 We do not wish to upset existing good governance and working arrangements, for example in relations with the airport's own noise governance group, which may include ACC members. Where these do exist, it will be important that the links to the ACCs are clear and that they are able to challenge reports and recommendations from the airport's noise governance group. Sharing best practice on these matters will be important to improve performance across ACCs, and we encourage the UK ACC network to continue with this.

5.18 We will be updating and consulting on the Government's 2003 guidance to ACCs[119] following this consultation and will use this as an opportunity to seek detailed comments, building on useful feedback received from environmental non-Governmental organisations on the effectiveness of ACCs In particular, to ensure independence, we believe that the chairmanship of ACCs should be advertised externally and appointments should be for a fixed term in accordance with good practice in public appointments. The airports and aerodromes designated under section 35 of the Civil Aviation Act 1982 have not changed since 2002, and the Government would welcome views on whether the current list of designated airports remains appropriate.

Questions

- Do you think Airport Consultative Committees should play a stronger role and if so, how could this be achieved?

[118] More information on CAA's consumer panel is available here: http://www.caa.co.uk/application.aspx?catid=14&pagetype=65&appid=7&newstype=n&mode=detail&nid=2082

[119] *Guidelines on Airport Consultative Committees*, DfT, 2003, http://www.ukaccs.info/guidelines.htm

- Is there a case for changing the list of airports currently designated to provide consultative facilities?

Improving local accountability and engagement on noise management

5.19 Noise is the issue over which relations between airports and local communities have tended to break down. Establishing good relations depends on local people feeling that engagement processes are effective, that noise impact data are credible and accessible and that the airport is honest about its local impacts and is willing to challenge its own performance. Whilst the Government is aware of some good practice around local engagement, it is also evident from the numbers of complaints and the numbers of people joining local campaign groups that this is not the case everywhere. The Government would like to see the noise management process marked by greater transparency, trust and local accountability of airports to local communities affected.

5.20 NAPs (see paragraph 4.12) are the primary vehicle for airports to explain their management of noise and, in the case of non-designated airports, to set and monitor noise controls. Although there is a clear consultation process which has to be followed by airports when drawing up these plans, the Government believes that there is a role for the CAA to become more involved, particularly at larger airports, in order to improve independent oversight of airports' noise management and transparency. One way of doing this is better coordination with the ACCs once noise management regimes are in place.

5.21 Currently the CAA's role in noise is primarily focused on modelling and mapping, which it carries out on the DfT's behalf at the designated airports and on behalf of some other airport operators elsewhere, and providing technical expertise to the DfT to inform policy development and work in international forums. The CAA is also required to assess the noise impacts of airspace change proposals, as part of its regulatory airspace functions.

5.22 The Government considers that independent oversight by the CAA could include:

- liaising with ACCs to share good practice and advising Ministers on the extent to which an airport has complied with good practice;
- publishing or arranging for airports to publish noise data to inform the public about noise impacts;
- assisting ACCs in monitoring implementation of commitments made under NAPs; and
- assessing an airport's implementation of noise penalty schemes and acting as arbiter in the case of disputes.

5.23 This new role could potentially also fit with any future role for the CAA as a competent authority under the proposed EU noise regulation (see

Annex C) responsible for assessing the process to be followed when operating restrictions may be required to address the noise problem at UK airports within the scope of the EU Regulation.

5.24 The implementation of the EU Regulation, including designation of competent authorities, would be subject to separate consultation and an impact assessment to determine the costs and benefits associated with this additional work. If given a formal role in legislation, the CAA would be able to charge industry for the performance of its functions though we would expect in the first instance that industry should improve its performance such that the CAA's involvement need only be 'light touch'.

Question

- Do you agree that the Civil Aviation Authority should have a role in providing independent oversight of airports' noise management?

Airport master plans

5.25 Master plans were a recommendation of the 2003 Air Transport White Paper. Since then over 30 airports across the UK have adopted master plans on a voluntary basis. The primary objective of master plans is to provide a clear statement of intent on the part of an airport operator to enable future development of the airport to be given due consideration in local planning processes.

5.26 Scoping document respondents were generally in favour of retaining master plans, although some identified limitations e.g. plans quickly becoming out of date, and a number of respondents thought that airport operators should engage more widely in preparing their plans.

5.27 Airport master plans do not have statutory status, but the Government recommends that airports continue to produce master plans. We recommend that they are updated at least once every five years, and that the five year periods should coincide where possible and appropriate with the periods covered by NAPs to streamline the planning process.

5.28 We also recommend that airport operators consult on proposed changes to master plans, and engage more widely with local communities prior to publication, for example liaising more closely with local authorities and also through drop-in sessions and public meetings. Airport operators should notify the DfT or devolved administration when plans are revised, and highlight any material changes. Airport operators are also encouraged to advertise the publication of any revisions to their plans widely in their local area.

5.29 Research carried out by the DfT on the effectiveness of master plans has indicated that drafting for all audiences produces a tension between communicating future plans and providing a technical

reference source. We therefore recommend that, where possible, the body of the document should be accessible to a lay person, and the technical detail clearly annexed.

5.30 The scoping exercise demonstrated the importance that stakeholders place on guidance, so we have included a list of the content that the Government would recommend airport operators include in the master plan at Annex E, though we recognise that airports will wish to adopt their plans to suit local circumstances.

Airport Transport Forums

5.31 All airports in England and Wales with more than 1,000 passenger air transport movements a year are currently advised to set up ATFs. This concept was introduced in the previous administration's white paper *A New Deal for Transport: Better for Everyone*[120] and reiterated in the 2003 Air Transport White Paper.

5.32 The primary role of the forums is to serve local communities through:

- identifying short and long term targets for increasing the proportion of journeys made to airports by public transport;
- devising a strategy for meeting these targets; and
- overseeing implementation of the strategy.

5.33 The SEAT looked at surface access at Heathrow, Gatwick and Stansted. These airports cited the partnership working of their ATFs and their success in delivering surface access improvements as examples of good practice. All three stated that their ATFs had helped deliver essential improvements in surface access.

5.34 Scoping document respondents were also generally in favour of ATFs, though some felt that they could better represent the needs of local employees and residents as well as passengers.

5.35 The Government recognises the value of a continued partnership approach on surface access between airport operators, LEPs, local authorities, businesses, transport stakeholders and local communities. Airports may wish to retain the functions of ATFs, but take the opportunity to review their membership and any opportunities for streamlining the work of ATFs with ACCs (notwithstanding the statutory obligations of ACCs) to ensure that forums are fully able to represent the needs of passengers, local employees and residents and freight.

[120] *A New Deal for Transport: Better for Everyone* , DfT, 1997, http://webarchive.nationalarchives.gov.uk/+/http:/www.dft.gov.uk/about/strategy/whitepapers/previous/anewdealfortransportbetterfo5695

5.36 As a number of responses to the scoping document suggested that general guidance was regarded as useful, we have included some suggestions at Annex E.

Airport surface access strategies

5.37 The 2003 Air Transport White Paper recommended that ATFs produce airport surface access strategies (ASASs) to set out:

- targets for increasing the proportion of journeys made to the airport by public transport for both airport workers and passengers;
- the strategy to achieve those targets; and
- a system whereby the forum can oversee implementation of the strategy.

5.38 Timetables for updating ASASs were originally aligned with those for Local Transport Plans (LTPs). Although Local Transport Authorities do not now have to prepare a new LTP every five years, the statutory requirement to have and review an LTP remains and ASASs should take account of LTPs.

5.39 Scoping document respondents were generally in favour of ASASs, though some felt that the targets were not sufficiently challenging or well aligned to planning considerations. Others felt that the strategy could be effectively aligned with other airport reports e.g. into the master plan.

5.40 The Government recommends that airports continue to produce ASASs to set out targets for reducing the carbon and air quality impacts of surface access to airports, and to measure performance against these targets in a clear and transparent way. Airports may wish to consider whether there is any chance to reduce duplication of the functions and outputs of advisory groups.

5.41 The Government will work with the Airport Operators Association (AOA) and individual airports to continue to play an oversight role in surface access developments through carrying out the recommendations of the Low Carbon Transport to Airports project[121]. The SEAT recognised the value of the priorities for action agreed through the project:

- the DfT and AOA to continue to hold best practice forums on surface access;
- to provide better information to passengers; and
- to work with the National Business Travel Network to advise business travellers on low carbon travel options.

[121] *Low Carbon Transport to Airports Project Report,* DfT, July 2011, http://www.dft.gov.uk/publications/lcta-project-report

5.42 As a number of responses to the scoping document suggested that general guidance was useful, we have included some suggestions at Annex E.

Questions

- Do you agree with the Government's overall objective on working together?
- Is the high-level guidance provided in Annex E sufficient to allow airports to develop local solutions with local partners?
- Do you agree that master plans should incorporate airport surface access strategies?
- Do you agree that, where appropriate, the periods covered by master plans and noise action plans should be aligned?

Chapter 6: Planning

Overview

6.1 This chapter explains the status of the Aviation Policy Framework and its interaction with existing planning guidance and policies.

The status of the Aviation Policy Framework

6.2 The Aviation Policy Framework will apply to the whole UK and this consultation document has been developed with input from the Devolved Administrations in Northern Ireland, Scotland and Wales. Aviation policy is largely a reserved matter, while planning and surface access policies are devolved. Some aspects of noise policy are devolved but others are reserved.

6.3 When adopted, the Aviation Policy Framework, in conjunction with relevant policies and potentially proposals which are addressed or will arise from the Call for Evidence which we intend to publish later this year, will fully replace the 2003 Air Transport White Paper and its associated guidance documents. Those documents are:

- *Guidance on the Preparation of Airport Master Plans* (DfT, July 2004)
- *Airport Transport Forums – Good Practice Guide* (DETR, April 2000)
- *Guidance on Airport Transport Forums and Airport Surface Access Strategies* (DETR, July 1999)

6.4 We will keep our policies under review and refresh them as needed, for example, if there are major changes in the evidence supporting our policy objectives or in external circumstances. Any major changes will be subject to public consultation.

Planning policies

6.5 In preparing their local plans, local authorities are required to have regard to policies and advice issued by the Secretary of State. This will include the final Aviation Policy Framework, to the extent it is relevant to a particular local authority area, along with other relevant planning policy and guidance. The final Aviation Policy Framework may also be a material consideration in planning decisions depending on the circumstances of a particular application (as would the draft Aviation Policy Framework albeit not carrying much weight in planning prior to its adoption).

Safeguarding

6.6 The NPPF makes clear that local planning authorities should "identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen choice". This could apply to airport infrastructure.

6.7 Land outside existing airports that may be required for airport development in the future needs to be protected against incompatible development in the period until adoption of the Aviation Policy Framework and any relevant policies and proposals ultimately arising as a result of the Government's proposed Call for Evidence, which we intend to publish later this year.

6.8 Airport operators should maintain updated safeguarding maps to reflect potential proposals for future development of airports and ensure they are certified by the CAA. This will ensure that the airport operator is consulted by the local planning authority over any planning applications which might conflict with safe operations at the airport, or nearby. The safeguarding map identifies areas by reference to the land height around the airport and its operational requirements, and describes the circumstances in which the local planning authority is required to consult the airport operator. In exceptional circumstances, where these arrangements prove inadequate, supplementary directions may be made.[122]

[122] In England, these directions are made by the Secretary of State under Article 25 of the Town and Country Planning (Development Procedure) (England) Order 2010.

Surface access

6.9 All proposals for airport development must be accompanied by clear surface access proposals which demonstrate how the airport will ensure easy and reliable access for passengers, increase the use of public transport by passengers to access the airport, and minimise congestion and other local impacts.

6.10 The general position is that developers should pay the costs of upgrading or enhancing road, rail or other transport networks or services where there is a need to cope with additional passengers travelling to and from expanded or growing airports. Where the scheme has a wider range of beneficiaries, the Government will consider, along with other relevant stakeholders, the need for additional public funding on a case-by-case basis.

Airspace change process

6.11 To accommodate the expected long term growth in air traffic, an increase in UK airspace capacity is needed. The CAA is responsible for the planning and regulation of UK airspace and is taking forward a FAS which the Government fully supports. Any proposed changes to airspace routes or operating procedures need to be consulted on and approved by the CAA, and there is a well-established process for doing this.

Public Safety Zones

6.12 Safety is a fundamental requirement for aviation, including at the local level. For people living and working near airports, safety is best assured by ensuring the safe operation of aircraft in flight. However, in areas where accidents are most likely to occur we seek to control the number of people at risk through the Public Safety Zone (PSZ) system. PSZs are areas of land at the ends of runways at the busiest airports, within which development is restricted.

6.13 Our basic policy objective remains not to increase the number of people living, working or congregating in PSZs and, over time, to see the number reduced. Where necessary, we expect airport operators to offer to buy property which lies wholly or partly within those parts of the zones where the risk is greatest. We will continue to protect those living near airports by maintaining and, where justified, extending the PSZ system.

Annex A: Summary of consultation questions

This Annex sets out the questions framing this consultation.

Please note that in this consultation, we are seeking views and information relating to the questions listed below. We intend to issue, later this year, a Call for Evidence on maintaining the UK's international connectivity. This will include an opportunity to comment on what, if any, new airport capacity may be required to meet the UK's needs in the medium and long term. If you wish to make such comments you are encouraged to wait for the planned Call for Evidence, as these would be outside the scope of the current consultation.

Some respondents may wish to answer every question, but it is not necessary to do so. "Yes" or "No" answers are acceptable but, where possible it would be helpful if respondents would explain their answers. As well as answering the specific questions listed, respondents may wish to comment on any aspect of this document, including the information set out in the Annexes.

We are seeking your views on the overall strategy set out in this draft Framework. Under the specific chapter headings, we are also asking for views on particular proposals where specific policy changes are proposed.

Chapter 2: The benefits of aviation

Connectivity:

- Do you agree with our analysis of the meaning and value of connectivity, set out in Chapter 2?

Fifth freedoms:

- Do you support the proposal to extend the UK's fifth freedom policy to Gatwick, Stansted and Luton? Please provide reasons if possible.
- Are there any other conditions that ought to be applied to any extension of the UK's fifth freedom policy to Gatwick, Stansted and Luton?

Airports outside the South East:

- Do you agree that the Government should offer bilateral partners unilateral open access to UK airports outside the South East on a case-by-case basis?

Any other comments:

- Do you have any other comments on the approach and evidence set out in Chapter 2?

Chapter 3: Climate change impacts

- Do you have any further ideas on how the Government could incentivise the aviation and aerospace sectors to improve the performance of aircraft with the aim of reducing emissions?

Any other comments:

- Do you have any other comments on the approach and evidence set out in Chapter 3?

Chapter 4: Noise and other local environmental impacts

- Do you agree that the Government should continue to designate the three largest London airports for noise management purposes? If not, please provide reasons.
- Do you agree with the Government's overall objective on aviation noise?
- Do you agree that the Government should retain the 57 dB $L_{Aeq,16h}$ contour as the average level of daytime aircraft noise marking the approximate onset of significant community annoyance?
- Do you think that the Government should map noise exposure around the noise designated airports to a lower level than 57 dBA? If so, which level would be appropriate?
- Do you agree with the proposed principles to which the Government would have regard when setting a noise envelope at any new national hub airport or any other airport development which is a nationally significant infrastructure project?
- Do you agree that noise should be given particular weight when balanced against other environmental factors affecting communities living near airports?
- What factors should the Government consider when deciding how to balance the benefits of respite with other environmental benefits?
- Do you agree with the Government's proposals in paragraph 4.68 on noise limits, monitoring and penalties?
- In what circumstances would it be appropriate for the Government to direct noise designated airports to establish and maintain a penalty scheme?
- In what circumstances would it be appropriate for the Government to make an order requiring designated airports to maintain and operate noise monitors and produce noise measurement reports?

- How could differential landing fees be better utilised to improve the noise environment around airports, particularly at night?
- Do you think airport compensation schemes are reasonable and proportionate?
- Do you agree with the approach to the management of noise from general aviation and helicopters, in particular to the use of the section 5 power?
- What other measures might be considered that would improve the management of noise from these sources?
- Do you have any further ideas on how the Government could incentivise the aviation and aerospace sector to deliver quieter planes?
- Do you believe that the regime for the regulation of other local environmental impacts at airports is effective?
- Do you think that noise regulation should be integrated into a broader regulatory framework which tackles the local environmental impacts from airports?

Chapter 5: Working together

- Do you think Airport Consultative Committees should play a stronger role and if so, how could this be achieved?
- Is there a case for changing the list of airports currently designated to provide consultative facilities?
- Do you agree that the Civil Aviation Authority should have a role in providing independent oversight of airports' noise management?
- Do you agree with the Government's overall objective on working together?
- Is the high-level guidance provided in Annex E sufficient to allow airports to develop local solutions with local partners?
- Do you agree that master plans should incorporate airport surface access strategies?
- Do you agree that, where appropriate, the periods covered by master plans and noise action plans should be aligned?

Annex B: Noise metrics and controls

Table 1: Glossary on noise metric terms	
Metric	**Description**
Noise maps	These depict contours which connect points having the same average noise exposure. The contours are generated using computer models, based upon the known characteristics of aircraft noise generation and attenuation and, for the noise designated airports at least, calibrated from noise measurements monitors on the ground.
dB(A)	A measure of sound pressure level ("A" weighted) in decibels as specified in British Standard BS EN 61672-2:2003.
L_{Aeq}	The A-weighted equivalent continuous sound pressure level which produces the same energy over a certain time period, as the actual, usually varying, sound over the same time period.
$L_{Aeq,16h}$	The A-weighted average sound level over the 16 hour period of 0700-2300. With regard to noise contours at airports, this is usually based on an average summer day.
$L_{Aeq,8h}$	The A-weighted average sound level over the 8 hour period of 2300-0700.
L_{den}	L_{den} is a composite of the L_{day} (L_{Aeq} 0700-1900 hours) $L_{evening}$ (L_{Aeq} 1900-2300 hours) and L_{night} (L_{Aeq} 2300-0700 hours) levels but with a five dB(A) weighting being added to the $L_{evening}$ value and 10 dB(A) weighting being added to the L_{night} value. It is based on an annual average day. The END requires airports to map noise exposure every five years using the L_{den} and L_{night} metrics.

Table 2: Summary of noise control measures		
Control measure	**Set by**	**Enforcement / monitoring**
Aircraft noise certification limits	ICAO and the EU (UK Government contributes)	EASA/ the CAA.
Airspace Use	Changes generally proposed by NATS/ airports.	The CAA is responsible for the airspace change process, having regard to the Transport Act 2000, Air Navigation Directions and DfT guidance on environmental objectives.[123]
Noise Operational Controls – e.g.: - NPRs - Night noise restrictions - Departure noise limits - Minimum height requirements after take-off - CDA - Ground engine testing noise limits	Government (Heathrow, Gatwick and Stansted) Local authorities through local planning agreement Other airports have powers to make noise control schemes under the Civil Aviation Act 1982 as amended by Civil Aviation Act 2006	Airports monitor compliance with controls by means of track-keeping and noise monitors Heathrow, Gatwick and Stansted compliance data reported to the DfT Reports to local authorities, local residents through ACCs and via NAP reporting process.
Penalty schemes in relation to aircraft taking off or landing at the airport not complying with noise controls.	Airports The Government can require designated airports to have penalty schemes.	Airports Reports to local authorities, local residents through ACCs and via NAP reporting process.
Fixing landing charges in relation to noise emissions	Airports The Government can direct designated and other airports to fix landing charges in relation to noise emissions.	Airports
Noise insulation grant schemes	Airports The Government can require grant schemes at designated airports.	Airports Reports to local authorities, local residents through ACCs and via NAP reporting process.

[123] Guidance to the CAA on Environmental Objectives Relating to the Exercise of its Air Navigation Functions

Annex C: Current EU noise proposal

C.1 On 1 December 2011 the European Commission launched the Better Airports Package[124] which includes a proposal for an EU Regulation on noise which would repeal the current Operating Restrictions Directive (2002/30) and further harmonise and strengthen EU rules on aircraft noise management and assessment.

C.2 The Commission's proposal included a legally binding procedure for competent authorities to assess the current and future noise situation at an airport. It also made clear that, when new measures are necessary to achieve or maintain noise abatement objectives, competent authorities shall take into account the combination of measures available under the "balanced approach" before resorting to operating restrictions. They must also assess the cost effectiveness of new measures.

C.3 The proposal contained some significant changes from the 2002 Directive. For example, there is a proposed requirement for Member States to designate a competent authority and an appeal body that is independent of any organisation which could be affected by noise-related action. This means that no organisation linked to or affected by an operation of an airport can be a competent authority and implies that there would need to be a new role for national authorities or some other independent body.

C.4 This proposal has the potential to amend the regulatory landscape relating to control of aircraft noise and, if adopted, would need to be considered in the development of future UK policy and regulation.

C.5 We support the overall aim of ensuring appropriate analysis of the cost-effectiveness of noise management measures at the largest EU airports. Consistent with our policy to increase transparency and trust in the noise management process (see paragraph 5.17), we can see potential benefits in giving an independent body a role in overseeing the noise management at an airport, but we will want to ensure that the associated administrative burdens are not disproportionate to the problems being addressed.

[124] The European Commission's *Better Airports Package* was launched in December 2011, http://ec.europa.eu/transport/air/airports/airports_en.htm

C.6 Following discussions in Council Working Groups, the UK successfully negotiated some changes which make the proposal less burdensome. For example, we were able to ensure that the new assessment rules in the Regulation would only apply where noise was identified as a problem and new noise related operating restrictions were being considered. We also ensured that the new process would align more closely with the existing process to produce NAPs every five years to avoid duplication or inconsistency.

C.7 A general approach was agreed on the proposal at the Transport Council in June. The European Parliament is now due to consider the proposal in the coming months which may result in amendments. At this stage therefore, we cannot predict the final outcome. We will continue to discuss the proposal with stakeholders in the context of how the EU proposal fits with our proposals for UK noise policy.

Annex D: Noise descriptors

D.1 The previous Administration's policy, as set out in the 2003 Air Transport White Paper, was to use 57 dBA $L_{Aeq,16}$ as the level of daytime noise (based on an average summer day) marking the approximate onset of significant community annoyance (see paragraph 4.25). In practice this value has influenced the production of annual contour maps at many airports, from which information is obtained about the area and population exposed to average daytime noise from aircraft of at least 57 decibels (L_{Aeq16h}).

D.2 The level of 57 dB(A) has previously had significance in planning terms. This is because Planning Policy Guidance Note 24 (PPG 24) on noise referred to 57 dB(A) as being the level below which aircraft noise did not need to be considered as a determining factor in granting planning permission for new houses. It has also been used in airport planning decisions (e.g. the Heathrow Terminal 5 planning condition which limits growth of the 57 dB(A) contour).

D.3 Following the adoption of the NPPF on 27 March 2012, planning policy guidance notes became defunct. On noise, the NPPF states that the planning system should prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of noise pollution. In line with the NPSE (see paragraph 4.20), the NPPF also says that planning policies and decisions should aim to avoid noise giving rise to significant adverse impacts on health and quality of life as a result of new development. The NPPF contains no reference to specific noise exposure levels.

D.4 We note that many stakeholders in their response to the scoping document have argued that people are now more sensitive to aircraft noise and that just producing contours down to 57 dB(A) understates the impact. The argument is also made that individual aircraft movements and the frequency of movements are contributing more to the annoyance experienced. Therefore just using an average noise level is not meaningful.

D.5 International research carried out in recent years by the World Health Organization, European Environment Agency (EEA) and others seems to reinforce the finding that the level of aircraft noise exposure at which a certain level of annoyance occurs has decreased in the last 20-30 years. For example, the EEA published a good practice guide in 2010

to help practitioners understand and fulfil the requirements of the END[125]. The report describes the results of research that supports the view that people are becoming more sensitive to aircraft noise (i.e. the same level of adverse reaction is now occurring at a lower noise exposure). In particular the report concludes that the level of noise at which a certain percentage of people are highly annoyed is lower in post-1990 studies in comparison to studies done before 1990. However, the reasons for this change remain inconclusive and there are still large uncertainties around the precise change in relationship between annoyance and the exposure to aircraft noise. Noise is defined as unwanted sound and unwanted is by definition subjective. As such, people's response will vary.

D.6 The Government acknowledges that the balance of probability is that people are now relatively more sensitive to aircraft noise than in the past. We recognise that people living outside the 57 dB $L_{Aeq,16h}$ contour are also affected by aircraft noise and that, for some, the annoyance may be significant. Indeed, many complaints about aircraft noise come from outside the 57 dB $L_{Aeq,16h}$ contour.

D.7 As there is no conclusive evidence on which to base a new level, for the present time we are minded to retain the 57 dB $L_{Aeq,16h}$ contour as the average level of daytime aircraft noise marking the approximate onset of significant community annoyance. However, to facilitate monitoring to provide more information about noise impacts we would welcome views on whether it would be useful to ensure that the contour maps produced annually to show noise exposure around the designated airports are drawn in future to a lower level. We consider that there are two measurement options. One is to use L_{den} and produce contours down to 55 dB(A). This aligns with the level to which airports are required to map noise exposure under the END. The other alternative is to continue to use $L_{Aeq,16h}$ but to map down to 54 dB(A), which is the next logical step down from the current 57 dB $L_{Aeq,16h}$ contour,[126] along with the concurrent production of night noise contours ($L_{Aeq,8h}$).

D.8 The table below highlights the main differences between the two measures, and we would welcome views on these options:

[125] *Good practice guide on noise exposure and potential health effects*, EEA, November 2010, http://www.eea.europa.eu/publications/good-practice-guide-on-noise

[126] $L_{Aeq,16h}$ contour maps for the designated airports have historically shown contours in increments of 3dB(A) from >57 to >72. Hence if we were to produce contours down to a lower level, the next logical contour would be 54 dB(A)..

	55 dB(A) L_{den}	**54 dB $L_{Aeq,16h}$**
What is measured	Average noise over 24 hours. Made up of day (0700-1900), evening (1900-2300) and night (2300-0700) noise levels with a five dB(A) weighting added to evening noise and 10 dB(A) added to night noise to reflect the different way people are affected by noise at these times of day.	Average noise in a 16 hour summer day period (0700-2300). No weightings used.
Measurement Period	24 hours. Based on annual data which averages out the traffic movements over the year.	16 hours (0700-2300). Based on average summer day movements only. For most airports this will be the busiest period.
Size of contour	Larger than 57 dB $L_{Aeq,16h.}$ Also larger than 54 dB $L_{Aeq,16h}$ at airports with many night flights.	Larger than 57 dB $L_{Aeq,16h}$
Relevance to all airports	Relevant to standard commercial civil airports, with a mix of day and night flights. Less so for smaller airports, and especially those with no, or very few, night flights. Could be argued that the 24 hour averaging is artificially diluting the impact, especially where operations are concentrated in a short period.	This indicator would dilute the impact for airports not open the full 16 hours, but in general that is a small effect.
Sensitivity to changes in airport operations	Not sensitive to small changes in night movements. For example, if the number of night flights at Heathrow were reduced by half, the reduction in L_{den} would be very small.	Not impacted by a change in night flights as does not measure the night period. Supplementary annual $L_{Aeq,8h}$ night contours (with no weighting) would directly show changes in night noise.
Historic compatibility	Would only allow comparisons back to 2006 when such measures began to be used.	Effectively as far back as contours have been produced. The corresponding 57 dB(A) value would automatically be produced by the modelling work. Comparative 54 dB(A) contours could in theory be produced retrospectively.
Cost of production	Additional costs of £40-50k for all three noise designated airports compared to 57 dB $L_{Aeq,16h,}$ as information for day, evening and night periods is needed to produce $L_{den.}$	No additional costs compared to 57 dB $L_{Aeq,16h,}$ but additional costs of £10-15k to produce $L_{Aeq,8h}$ night contours.

D.9 At this time we do not consider that routinely producing contours down to even lower levels would be appropriate as this would increasingly

represent a level of noise which is approaching typical background noise levels in an urban environment. Previous CAA research[127] concluded that it would take much longer and be more costly to produce noise contours down to those lower levels. So whilst it would not be realistic to map noise at very low levels, we nevertheless recognise that there may be some individuals living outside the 55 dB L_{den} or 54 dB $L_{Aeq,16h}$ contours who will also consider themselves significantly affected by aircraft noise, especially outside urban areas where background noise levels are lower.

D.10 For smaller airports which are not covered by the END, or where non-designated airports covered by the END wish to produce additional contour data, we consider that it should be for the airport concerned to determine the most appropriate method for monitoring noise, in consultation with local communities and its Consultative Committee. This would be consistent with the Government's policy preference for local solutions for local issues and would enable local circumstances (including local attitudes and any bespoke compensation schemes) to be taken into account when determining the appropriate noise measurement.

[127] *ERCD Report 1006: Measurement and Modelling of Aircraft Noise at Low Levels,* CAA, October 2010, http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=4297

Annex E: Revised guidance on master plans, airport transport forums and airport surface access strategies

This Annex updates and, once finalised, will replace existing guidance on the content of airport master plans, ATFs and ASASs.

Master plans

Suggested content

E.1 The Government recommends that the more ground covered in a master plan and the more extensive the consultation which has informed its preparation, the greater its value in informing future land use, transport and economic planning processes, and in supporting prospective planning applications. We would anticipate that, in the case of most airports, master plans will address the following "core" areas:

- forecasts;
- infrastructure proposals;
- safeguarding and land/property take (please see paragraph E.5);
- impact on people and the natural environment; and
- proposals to minimise and mitigate impacts.

Forecasts

E.2 It would be helpful for airport operators to provide an introduction to the forecasts on which the master plan is based in the form of an up-to-date breakdown of current traffic (daytime and night-time, passenger, cargo and air transport movements). An explanation of this data in relation to historic trends and expected market developments would provide important context.

Infrastructure proposals

E.3 To help recipients of the master plan it would be helpful for airports to include information on existing airside and terminal infrastructure. It may also be helpful if airports were to include a statement of their adopted planning standards. These would include issues such as gate utilisation and queue lengths for normal throughput, average and maximum delay criteria for landings and take-offs and how these would impact on their proposals.

E.4 The plans are not expected to take the form of detailed engineering or architectural drawings, such as those that might accompany a planning application, but to be of value they ought to contain sufficient information, including drawings where appropriate, so that they may be clearly understood by the lay person as well as professionals. In addition to airside and terminal development and surface access infrastructure, plans for the next 10 years might usefully include landside development (e.g. car parking, servicing and support areas, environmental features, landscaping and other mitigation measures), clearly identifying what is new and what already exists. They should also show airport boundaries and highlight any additional properties or land that may need to be taken. Maps showing safety surfaces and PSZs can be provided separately (see below).

Safeguarding and land/property take

E.5 Perhaps one of the most important issues master plans should seek to address is what the long term land requirements are for future airport development and whether this requires changes to airport boundaries. Where it does, the additional land and property involved, including those associated with PSZs and safety surfaces, should be clearly identified to minimise long term uncertainty and non-statutory blight.

Mitigation

E.6 Proposals for mitigation measures across the major impact areas identified will be an important component of master plans, for example emission controls, noise abatement measures, sound insulation, surface access schemes and traffic management and measures to address landscape and biodiversity impacts.

E.7 It will be appropriate for master plans to address any proposals for compensation measures that may be required where the scale of impacts is such that they cannot adequately be mitigated. Such measures might include appropriate voluntary purchase schemes and assistance with relocation costs where the extent of property and land-take is clear.

Airport transport forums

Suggested Content

E.8 The Government suggests that ATFs are made up of the following groups:

- Airport operator (who should lead the forum);
- Local Highway Authority and Integrated Transport Authority;
- Local Enterprise Partnership;
- Local transport providers (e.g. bus, rail, coach, car hire);
- Local authorities;
- Passenger representatives;
- Freight industry representatives;
- Local businesses;
- Representative from the Airport Consultative Committee;
- Representatives of airport users;
- Representatives of airport employees; and
- Bodies representing interests of walkers, cyclists and disabled people in the area.

E.9 However the Government recognises that local circumstances will have a bearing on the make-up of the group. This list should not therefore be taken to be prescriptive or exhaustive.

E.10 The Government suggests that ATFs should meet at least twice per year, and engage proactively in dialogue with group members throughout the year.

E.11 In order to ensure the forum is effective, we recommend that airport operators should limit the membership to a manageable number. However they should engage frequently in wider consultation with interested parties including members of the local community e.g. through workshops.

E.12 Costs relating to ATFs should be borne by the airport operator.

Airport surface access strategies

Suggested content

E.13 The Government suggests that ASASs should include:

- analysis of existing surface access arrangements;

- targets for increasing the proportion of journeys made to the airport by public transport by passengers and employees; cycling and walking. There should be short and long term targets;
- consideration of whether freight road traffic can be reduced;
- consideration of how low carbon alternatives could be employed;
- short term actions and longer term proposals and policy measures to deliver on targets such as:

- proposed infrastructure developments e.g. light rail;
- car/taxi sharing schemes;
- improved information provision on public transport, cycling and walking options;
- car park management; and
- through-ticketing schemes;

- indication of the cost of any proposals;
- performance indicators for delivering on targets;
- monitoring and assessment strategies (internal and external); and
- green transport incentive schemes for employees.

E.14 The Government recognises that different targets and proposals for meeting targets will be appropriate for different areas. This list is therefore not prescriptive or exhaustive.