

Written evidence from the CAA (AS 75)

1. Introduction

- 1.1 The CAA welcomes the Transport Select Committee's enquiry as a way of helping to inform the development of the UK's future aviation strategy. Given the timelines involved in delivering such a strategy, the need to develop a stable, long-term political consensus on the way forward is a crucial condition of success.
- 1.2 The UK has the benefit of addressing its aviation strategy from a strong position, having as it does one of the most developed and advanced aviation systems in the world. For example, the range of destinations available from London's airports make it the most globally connected city in the world, while over 70% of the UK population live within less than an hour's journey from an airport that offers connections to international destinations. The last two decades have seen sharp reductions in prices, particularly for short-haul flights, prompted by liberalisation which has driven competition and enabled the development of a successful "no-frills" sector that now accounts for four out of every ten passengers flying to or from the UK¹. The choice and value available to consumers have, in some ways, made recent years a golden age for UK passengers and for UK businesses that rely on aviation.
- 1.3 However, the aviation sector is already showing signs of stress and the UK faces significant challenges if it is to continue to ensure aviation meets the needs of its consumers and wider economy. In addition to the exposure to the weak world economy, it faces looming constraints from aviation infrastructure in the UK that, in some parts of the country, is operating at or close to capacity, as well as environmental constraints at the local and national level. In addition, there is evidence that the sector may not be meeting the needs of its consumers as effectively as it could. A successful aviation strategy needs to confront all of these challenges.
- 1.4 Government has a vitally important role to play in shaping the future of UK aviation by providing a robust framework that sends credible signals about the long-term direction of policy. However, Government's role is a supporting one, not as the main actor: the aviation sector is an overwhelmingly commercial industry, driven by private investment. Consumers benefit from the choice and value that have resulted from competition and innovation in the sector over recent decades. A successful strategy will need to provide a sufficiently stable regulatory environment to encourage investments that continue to deliver benefits for passengers and the wider economy, whilst targeting any interventions in ways that improve outcomes and minimise unintended consequences. Given the long lead times involved in delivering aviation infrastructure and in developing new technologies, policy stability is crucial. Consequently, an effective strategy will need to secure the support of successive Governments if it is to deliver successful change.
- 1.5 This submission summarises the views of the CAA, the UK's specialist aviation regulator, on the questions that have been posed by the Committee. The Submission has been kept short to comply as far as practical with the guidance

¹ Source: CAA airport statistics, 2011 figures

on submissions to Select Committees. Further information on a number of these issues can be found in the CAA's input to the Government's aviation policy framework, which informs much of this submission and is available from the CAA website².

² www.caa.co.uk/SustainableAviationFramework

2. What should be the objectives of Government policy on aviation?

2.1 In our response to the Government's scoping consultation paper published in October 2011³, the CAA set out its view that the Government's primary policy objectives should be clearly established from the outset. We suggested that there should be three primary objectives for the policy framework:

- *Safe and secure.* Aviation policy should be designed to ensure that flying remains amongst the safest ways to travel, with policy backed up by a focus on continuous improvement by those best placed to deliver. Safety underpins all other aspirations the sector might have.
- *Geared to delivering choice and value to consumers.* The benefits from aviation are a function of the sector's ability to transport business and leisure consumers, or their goods, from A to B, and to do so affordably, conveniently and comfortably. The more destinations that are accessible using aviation services, the greater the potential opportunities for both business and leisure activity. This concept is frequently referred to as 'connectivity' and we believe is a good measure of aviation's ability to serve the wider needs of the UK economy (see below).
- *Environmentally sustainable.* It is increasingly clear that the UK's broader environmental objectives will be threatened - and the sector's development will be blocked - unless environmental sustainability can be demonstrated. Achieving such sustainability is not optional – the choices arise in the domain of 'how', not 'whether'.

2.2 In recommending these objectives, the CAA was and remains driven by our statutory duties and the Government's letter of objectives, which we have brought together in our medium-term Strategic Plan⁴. The CAA's Strategic Plan focuses on the needs of consumers as the end user. It seeks to promote choice and value amongst passengers and shippers by encouraging the development of choice and competition that meet the needs of passengers, shippers and the many businesses in the UK that rely on aviation.

2.3 The CAA recognises that the Government's own considerations will be broader than ours and may wish to incorporate broader public interest considerations, such as the contribution of the aviation sector to direct and indirect employment in the UK, and the value generated by UK businesses which use aviation services. In many instances the interest of consumers and of the sector that serves them are aligned, but such an alignment is not inevitable. In cases of conflict, we would encourage the Government to give prime consideration to the consumer interest.

2.4 There are two main reasons for this.

³ CAA (2011) *CAA response to the Government's consultation on a Sustainable Aviation Framework*.

http://www.caa.co.uk/docs/589/UK_CAA_Response_To_Sustainable_Aviation_Framework.pdf

⁴ CAA (2011), *CAA Strategic Plan 2011-2016*,

<http://www.caa.co.uk/docs/1743/CAA%20Strategic%20Plan%202011-16%20v2.pdf>

- First, the economic benefit to the UK relating to consumer welfare (broadly, the value that consumers derive from aviation) is larger and more important to the UK economy than the economic benefits that would be maximised by focusing more narrowly on the producer interest in terms of profits, wages and taxes;
- Second, there is long experience in the UK and around the world of policy frameworks organised around helping the sector or particular players within it. These tend to be aimed at maximising the well-being or competitiveness of industry players, but the results have tended to be the exact opposite: weak and inefficient airlines and expensive airports, which have failed to thrive in the face of competition. In contrast, industries which focus on the interests of consumers tend to be more successful and competitive.

2.5 We believe that the present aviation strategy debate creates an opportunity to address this issue and develop a policy framework that puts the consumer, not airlines or airports, at the heart of policy.

How important is international aviation connectivity to the UK aviation industry?

- 2.6 It is our belief that connectivity is the single most important factor in measuring the economic benefit derived from aviation. Consistent with our belief that the consumer should be key to policy and that it is the consumer that benefits most directly from connectivity, we would suggest that the majority of the benefit of aviation can be measured by assessing the importance of connectivity to the consumer.
- 2.7 Connectivity is a term that is often used but rarely defined. At its simplest, connectivity combines a number of aspects of the choice and value available to consumers such as the range of airports they can access and the range of destinations available, the frequency with which these destinations are served, whether destinations can be reached directly or only through intermediate stops, and the price paid for the services offered. It is these factors that determine how effectively aviation is able to facilitate economic activity through the transportation of goods and services.

What are the benefits of aviation to the UK economy?

- 2.8 As mentioned earlier, there is significant evidence to suggest that aviation connectivity facilitates greater economic performance, particularly in high-value manufacturing and service sectors where access to people, knowledge, and high-value or time-critical products is vital. According to figures published by the World Economic Forum, despite the UK's relatively small size, its aviation network, measured in Available Seat Kilometres, is the third largest in the world behind only the USA and China⁵. Foreign businesses investing in the UK regularly cite the ease of access to international markets provided by the UK's aviation connectivity as a key factor in their location decision. In addition to facilitating leisure travel by UK residents, aviation is a key enabler of inbound

⁵ World Economic Forum (2011) Global Competitiveness Report

tourism into the UK, with over 65% of overseas visitors to the UK arriving by air⁶.

What is the impact of Air Passenger Duty on the aviation industry?

2.9 Taxation is a matter for government and we have not sought to quantify the impact of Air Passenger Duty (APD) on consumer demand in the UK. To the extent that airlines pass on the tax to passengers, we would expect APD to have some effect on demand. Similarly, some of the tax may be absorbed by the airlines by way of lower profits. Either effect is likely to have some impact on either supply or demand and so impact on connectivity. However, we note that analysis of aviation demand history suggests that general economic growth is a stronger determinant of passenger demand than lower prices.

How should improving the passenger experience be reflected in the Government's aviation strategy?

2.10 Whilst the UK has good aviation connectivity when compared to other advanced economies, we believe that there is more that can be done to improve the passenger experience through focusing on the end-to-end journey of the passenger. During an average journey to or from the UK, a passenger's experience will be dependent on a number of services, including those provided by the surface access provider (train, bus, rail, etc), customs and immigration control, air traffic service provision, ground-handling providers, the airport, and the airline itself. Thus, actual outcomes in aviation are the product of a myriad of decisions by a network of actors from across the sector and beyond.

2.11 In part, the highly competitive and diverse nature of the sector makes coordination more difficult than would otherwise be the case. However, that does not fully explain or indeed excuse the reasons for the sometimes unsatisfactory levels of punctuality and resilience performance that are a common experience for many passengers and shippers. Looking past these intrinsic characteristics of the sector, the lack of proper coordination can also be attributed at least in part to issues relating to: the way that information on performance is generated, shared and responded to; fragmented governance structures that lead to those that are subject to the consequences of delay (the passenger, the airport, etc) often not being best placed to alter behaviour; and the absence of the right incentives. All of this is the result of fragmented structures and practices that have grown up piecemeal over time and which blur the line of accountability between Regulators, ANSPs, airports, airlines, slot coordinators, ground handlers and other actors. Each actor (an airline, airport, investor, technologist, etc.) has the best information about their own part of the network, but limited information about the network as a whole. Establishing if and how current structures and behaviours could be improved will not be quick nor will it be easy, but the process set up for the Davies Commission provides an opportunity to review this question in order to better optimize the operation of the overall network to the benefit of consumers.

2.12 The CAA has a key responsibility in acting to improve the overall passenger experience. In recent years, we have stepped up our work to improve sector

⁶ Source: International Passenger Survey

Where does aviation fit in the overall transport strategy?

- 2.13 As one of a number of transport modes, aviation needs to be considered in the context of the Government's overall transport strategy. Aviation's characteristics mean that it is well placed to deliver transport services over long distances in quick time, but is relatively poorly suited to providing mass transport over shorter distances due to the inconvenience of transiting to and through the airport, navigating check-in, etc. Aviation is also an intensive consumer of fossil fuels meaning that it faces a significant challenge in addressing climate change. Furthermore, access to many destinations is often possible only via larger "hub" airports meaning that noise and air quality effects will typically be concentrated around the vicinity of the airport. Until there is a step change in technology in the sector, these inherent characteristics of aviation will determine its place in overall transport strategy. This suggests that the Government's transport policy should promote alternative transport modes for shorter journeys where economic, including through better integration between aviation and other modes of travel and airports so as to promote connectivity and consumer amenity, and limit environmental effects.

3. How should we make the best use of existing aviation capacity?

- 3.1 As already mentioned, the UK is fortunate in having a well-developed aviation sector that delivers high levels of connectivity and choice for the consumer. A large part of this benefit has been generated by a conscious policy of liberalising markets that has been sustained across successive Governments, backed by a consensus view that market participants are best able to direct change and produce innovative outcomes that would not have been forecast or delivered through state planning. The corollary of this position is that intervention is only justified where it is to take account of issues such as externalities, market power, information asymmetries (or consistent failures of market players to interpret information correctly), time-inconsistency problems, or other factors that can lead to market failure. These principles naturally place constraints on Government intervention. Further limitations arise as a consequence of international law, private ownership of assets and the present constraints on public finances.
- 3.2 To some extent, the success of this approach to UK economic policy means that the ability to improve on the existing utilisation of capacity is limited. However, whilst it is difficult to recommend particular forms of intervention or reforms to market processes, we would make a number of observations:
- Outcomes should be set in a way that is targeted at the root cause of the market failure that the intervention is intended to address;
 - The range of policy levers available to Government may also influence the way outcomes are specified;
 - Less prescriptive approaches such as market-based policy measures will by their nature be more flexible and resilient to change as well as creating incentives for innovation. However, market-based approaches will not always be appropriate. Once again, the Government will need to satisfy itself that it has control of policy levers to ensure delivery of a prescriptive solution.

How do we make the best use of existing London airport capacity? Are the Government's current measures sufficient? What more could be done to improve passenger experience and airport resilience?

- 3.3 We believe that the approach set out above, which targets intervention only at clear cases of market failure, is as applicable to London and the South East as it is to other parts of the UK. The difference between the South East and other parts of the UK is that certain airports, namely Heathrow and Gatwick, face near-term capacity constraints that threaten consumer outcomes, including resilience and delay performance. The Government's South-East Airports Taskforce is perhaps the most high-profile recent examination of these impacts⁷, and the CAA has been responsible for facilitating implementation of some its recommendations⁸. As already noted, the CAA believes that there is more that can be done to improve the customer experience for passengers

⁷ <http://www.dft.gov.uk/publications/south-east-airports-taskforce>

⁸ <http://www.caa.co.uk/apfq>

across the UK, focused largely on better signalling to the various actors in the sector involved in service delivery.

Does the Government's current strategy make the best use of existing capacity at airports outside the south east? How could this be improved?

- 3.4 It should be noted that, in contrast to the supply challenges at Heathrow and Gatwick, airports outside the South East are more likely to face problems that arise from a lack of demand for aviation services that threatens the viability of commercial services needed to provide connectivity. The relative lack of demand for services from these regions can create problems such as poor connections to major business centres such as London. Our work on the dynamics of airport competition suggests that although there are limits to the travel times that consumers will tolerate in considering airports alternatives, a significant proportion of the market is prepared to travel reasonable distances to access an airport with a direct connection to their end destination⁹. Thus, part of the answer to the imbalance of supply between the regions lies in the promotion of an integrated transport infrastructure that facilitates greater intra- and inter-regional access to airports by consumers. This has the potential of promoting consumer choice and value through greater competition, enabling the geographical location of the airport to become less dominant in determining passengers' choice of airport¹⁰.

How can surface access to airports be improved?

- 3.5 Good surface access connections need to be frequent, reliable and good value if it is to help improve transport connectivity and offer an attractive proposition for passengers. Better surface access also facilitates greater spatial separation between centres of population and airports thereby potentially playing an important role in minimising the impacts on humans of noise and air quality emissions.
- 3.6 We note that relatively poor surface access for airports outside of the South East is an explanatory factor in the lower proportion of passengers accessing those airports by public transport¹¹ as well as the higher proportion of passengers for whom geographical proximity inevitably becomes a key determinant of the airport they use.

⁹ CAA (2011) *Airport Competition Assessment: Catchment Analysis Working Paper*
<http://www.caa.co.uk/docs/5/Catchment%20area%20analysis%20working%20paper%20-%20FINAL.pdf>

¹⁰ Results from the CAA's passenger survey showed that 40% of passengers using London airports rated airport location and surface access as the most important factor in choice compared to 65% for non-London airports, suggesting that airport choice was more constrained by location outside of London. CAA (2011) *Passengers airport preferences: Results from the CAA Passenger Survey, November 2011*. <http://www.caa.co.uk/docs/5/Passenger%20survey%20results%20-%20FINAL.pdf>

¹¹ CAA (2011) *CAA Passenger Survey Report 2011*,
<http://www.caa.co.uk/docs/81/2011CAAPaxSurveyReport.pdf>

4. What constraints are there on increasing UK aviation capacity?

- 4.1 Addressing the aviation sector's growing share of CO₂ emissions and mitigating the impact of aircraft noise nuisance and the detrimental effect on air quality that affect local communities is central to the sector's future success. The challenge of addressing climate change is genuinely global in nature. In contrast, the impact of aircraft noise and local air pollution are highly localised and demand local solutions.

Are the Government's proposals to manage the impact of aviation on the local environment sufficient, particularly in terms of reducing the impact of noise on local residents?

- 4.2 Although there are significant local impacts from aviation elsewhere in the UK, Heathrow accounts for more than one quarter of people affected by aviation noise in Europe, based on the European standard measure of 55LDen. Additionally, in terms of people affected, Heathrow has the greatest impact on air quality of any UK airport. Both these issues relate to the size and scale of the airport's operations and to its geographical location with approach and departure routes that cross the UK's principal population centre.
- 4.3 The CAA's second insight note, Aviation Policy for the Environment¹², noted that the development of the aviation policy framework presents an opportunity to develop a new, twin-track approach to noise policy focused on two high-level outcomes:
- seeking continued reductions in the number of people affected by noise; and
 - encouraging better engagement with communities in order to achieve greater consensus
- 4.4 The Government's draft proposals echoes much of that thinking and, if implemented, would result in positive improvements in terms of the number of people affected by noise. There are few options that have not been seriously considered, and it is worth noting that step change improvements in noise performance at Heathrow, for example, would require a more radical rethink of the operational conditions at the airport or an alternative hub, something that would need to be considered in the context of the longer term question of capacity provision (see below).

Will the Government's proposals help reduce carbon emissions and manage the impact of aviation on climate change? How can aviation be made more sustainable?

- 4.5 There are a large number of initiatives at the industry level to improve on the emissions performance of the sector and these promise to make a considerable difference to the sectors' carbon footprint. One of the most important from a CAA perspective is the Future Airspace Strategy (FAS)¹³, which is aimed at modernising the use of airspace in the UK in order to improve on the efficient use of capacity.

¹² www.caa.co.uk/SustainableAviationFramework

¹³ www.caa.co.uk/FAS

- 4.6 The CAA supports the UK Government's long-standing view that an essential part of any policy on aviation and climate change is to make the sector - in common with other energy-intensive sectors of the economy - meet the costs of its carbon emissions.
- 4.7 The ideal approach would be to secure a global agreement to this end. However, to date this has not been forthcoming and, in the absence of a global alternative, we believe that inclusion of aviation in the EU's Emissions Trading Scheme is the best way forward. However, we find encouraging the news from the International Civil Aviation Organisation (ICAO) that they are progressing discussions amongst member states, including the UK, on a number of market based measures to tackle aviation's impact on global warming. Though the outcome of these discussions is as yet unclear, we are hopeful that this work might lead to a global scheme to tackle aviation's climate change impacts.

What is the relationship between the Government's strategy and EU aviation policies?

- 4.8 As the question suggests, many regulatory aspects are governed by European and international law. European involvement in aviation has delivered significant benefits to the consumer as the internal market has been opened up. However, the flip-side to this is that some policy options are no longer possible. Laws set at the European level has a significant bearing on policy in many areas of aviation, including safety, consumer protection legislation and the approach to the economic regulation of airports and airlines. This, combined with the overwhelmingly commercial nature of the sector, means that the parameters within which policy is established at the national level are tightly set.
- 4.9 The UK has exerted considerable influence in the development of aviation policy at the European level, reflecting the relative size and importance of the UK aviation sector and a pro-competitive approach that has sat well with the move to develop the single market in aviation services. With the single market now bedded in, the European legislative process in the future may focus more on a fine-tuning of the now well-established regulatory framework with the aim of generating performance improvements through the better coordination of infrastructure and service providers at the national and European level, for example in the areas of the airspace management (e.g. Single European Sky) and airport infrastructure (e.g. the Airports Package recently proposed by the European Commission). The UK Government will wish to look at ways to work with the grain of these changes to further its national aviation objectives over the duration of its aviation strategy.

5. Do we need a step-change in UK aviation capacity? Why?

- 5.1 Current evidence suggests that the distribution of current capacity is poorly suited to meet the demands of the future. The latest demand forecasts, published by the Department for Transport in August 2011, show demand growth becoming restricted by capacity constraints at all airports in London and the South-East before 2030¹⁴. In addition, some of the larger regional airports are also forecast to become capacity constrained by 2030.
- 5.2 Long-term demand forecasts are, by their nature, always subject to considerable uncertainty. This is especially true in the current economic climate. However, we recognise that the Government is looking to put in place a sustainable framework for aviation that takes a long-term view of the challenges facing UK aviation. A number of these challenges are forecast to have a considerable effect on the ability for aviation to serve the consumer, and by extension the wider UK economy.
- 5.3 In terms of consumer choice, constraints on capacity are likely to limit this. For example, at Heathrow, which has been operating at or close to capacity for approximately 10 years, experience has shown that airlines have tended to enhance 'slot productivity' by allocating scarce capacity to the most profitable routes. These routes tend to be operated at a higher frequency than at other airports, but with the total number of destinations served from Heathrow declining over time. The opportunity cost of scarce slots mean that airlines at Heathrow are less able than those at other European airports to try out new routes to emerging markets. Furthermore, there is evidence that the lack of available capacity at Heathrow is already beginning to affect the UK's ability to negotiate more liberal air services agreements with foreign states, including a number of key emerging markets.
- 5.4 A further trend at Heathrow is the reduction in the number of domestic airports with connections to Heathrow. For example, the figures show that that between 2000 and 2010 the number of domestic airports served from Heathrow fell from ten to seven (though this has to some extent been reversed following the recent merger of British Airways and bmi).
- 5.5 A further effect is the likely increase in fares. The Department for Transport's forecasting model generates a 'premium' on fares to simulate the additional costs to passengers where capacity constraints become binding. The level of demand growth predicted by the 2011 forecasts suggests that the value of fare premiums resulting from capacity constraints at UK airports is predicted to total £1.7bn in 2030. Spreading this equally across the 330m terminal passengers predicted to use UK airports in 2030, this equates to £5 per terminal passenger or £10 per return journey. There is much variation in how this impact is distributed with significant increases at some airports and very little impact at others. The implied 'premium' per one-way trip at Heathrow would be £12 with the maximum predicted increase being £17 per terminal passenger at London City.

¹⁴ DfT, UK Aviation Forecasts 2011

5.6 Lastly, there are clear implications for the passenger experience. Analysis carried out for the CAA in 2008¹⁵, and updated in 2011 for the South-East Airports Taskforce, demonstrated the trade-off between throughput and delay as airport utilisation approaches capacity. This relationship becomes increasingly severe as congestion grows. The analysis suggested that the optimal level of capacity utilisation, beyond which the congestion cost of adding additional services outweighs the consumer benefits of the additional flights, is likely to be significantly less than an airport's technical capacity.

What should this step-change be? Should there be a new hub airport? Where? What are the costs and benefits of these different ways to increase UK aviation capacity?

5.7 The implications of inaction in this area are significant in terms of the impact on the consumer and - following on from that - the wider economy. The Government has recently announced the establishment of the Davies Commission to look into the question of whether new airport capacity is required and what kind of capacity would be most beneficial. This is a mid-term project and further detailed work is needed to establish the evidence base for these decisions, the nature of which will be driven partly by the Government's view of the objectives for aviation policy.

5.8 History suggests that any decisions in this area have the potential to be politically divisive, underlining the need for both a consensual, objective framework for guiding decisions and, perhaps more importantly, mechanisms for ensuring cross-party support.

5.9 To contribute to this end, the CAA is recommending four key decision criteria, that the Commission should have regard to when considering options and potential solutions.

- **Demand-focused:** to ensure that any capacity solution is consistent with trends in demand and geared to deliver connectivity, choice and value for consumers.
- **Financeable:** to ensure that any solution can be funded on the basis of airport charges at a level consistent with ensuring value for consumers;
- **Safe:** to ensure that any solution is designed to further improve the safety of the UK aviation system and is consistent with effective airspace management;
- **Sustainable:** to ensure that any growth in capacity is consistent with environmental objectives, including balancing the needs of consumers with those of local communities.

5.10 Though the CAA recognises that these criteria may not be exhaustive and there may be other considerations that the Davies commission, or Government, feels are valid, they are considerations that are central to the debate and where the CAA is well placed to offer its view. Looking ahead, the CAA intends to shape much of its advice around these key criteria.

¹⁵ Both reports can be accessed at www.caa.co.uk/apfg