CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT (UK)

Submission to the Airports Commission

Airport Operational Models

Introduction

1 The Chartered Institute of Logistics and Transport in the UK ("CILT(UK)") is a professional institution embracing all transport modes whose members are engaged in the provision of transport services for both passengers and freight, the management of logistics and the supply chain, transport planning, government and administration. We have no political affiliations and do not support any particular vested interests. Our principal concerns are that transport policies and procedures should be effective and efficient and based, as far as possible, on objective analysis of the issues and practical experience and that good practice should be widely disseminated and adopted. The Institute has a specialist Aviation Forum, a nationwide structure of locally based groups and a Public Policies Committee which considers the broad canvass of transport policy. This submission draws on contributions from all these sources.

2 This is the submission of the CILT(UK) to the Airport's Commission's Discussion Paper 04: Airport Operational Models. After this introduction, we make a number of general points about our submission and then respond to a number of the individual questions.

General

3 CILT is a membership organisation of professionals in transport and logistics. We have no particular business or location to lobby for, although many of our members are associated with a business or location. Our expertise is in transport and, as such, we can advise the Commission on how the transport industry will respond to passenger and freight shippers' demand for travel in various scenarios. It may be very valid for the Commission and certainly for the Government to ask wider questions about the economy, and others will undoubtedly respond, but that is not our expertise.

4 In the UK, aviation is predominantly delivered by the private sector, although there is public sector ownership of some airports and very small public subsidy involved in some operations, and of course, Government involvement in policy

and regulation. European aviation is also predominantly an international activity, with many states directly or indirectly involved in airlines and airports. Much regulation is at world level (eg. ICAO and IATA) and some is at European level. Some rules are set on a bilateral Government to Government basis. The result of this is that a desired outcome may not be achieved if it depends on commercial decisions, or the actions of non UK bodies, unless it is also in their interests. It is, of course, always possible for a desired outcome to be purchased by the public sector through subsidy or direct grant, but it is understood that the general policy of the UK Government is not to interfere with the market other than in exceptional circumstances. Subsidy can also lead to unintended consequences which may be contrary to the desired outcome.

5 Airlines, even if state owned, tend to operate in a particularly commercial manner to maximise profit. This means that they will always seek the highest yield, allocating their resources accordingly. Some airlines are very footloose and will not hesitate to withdraw from a route if it does not contribute sufficiently. Others have a longer term strategy that seeks to build a network over a longer timescale, sometimes involving alliances and partnerships.

6 Airline decisions are made on the basis of their own data about passenger and freight shipper demand and about their costs of operations. This data is very difficult to find in the public domain because it is commercially confidential and unique to each airline. The Commission's (and any other agency's) ability to collect and analyse such data is limited (although CAA data is, in many respects, better than for other modes). There must therefore be a strong health warning attached to any analysis which suggests an outcome as a result of a policy change because it is solely airlines who decide how to respond to demand with the policy in place.

Chapter 2 - Airports, Airlines and Route Networks

7 The first question in the Conclusions chapter is:

Do you consider that the analysis supports the case for increasing either hub capacity or non-hub capacity in the UK? Is there any additional evidence that you consider should be taken into account?

Our response is to make some broader comments on certain issues brought out in this section. The modal split between rail and air (paragraph 2.16) is not just determined by the rail journey times. While the overall market share is evenly balanced when rail journey times are around 3 hours, business travel is more time sensitive and often seeks a return journey in a day (as is highlighted by the success of London City to Edinburgh air services). The respective operating frequency of the two travel modes is also important. For most leisure travel cost is as important, if not more so, than journey times – the low cost Prestwick to Stansted route illustrated this. In 2001 640,000 passengers used this route but by 2012 it had been terminated because early purchase rail fares on Virgin Trains became cheaper whilst Air Passenger Duty and fuel prices pushed up the air fares. Another factor is the wide dispersion of travellers around London and the Home Counties where airports at Heathrow, Gatwick, Stansted, London City, Luton and Southend are often much more convenient to access for journeys to Scotland than Kings Cross or Euston stations. So air services continue to play an important part in connecting parts of the UK to London.

8 The “hub and spoke” network with intensive waves of flights throughout the day (paragraph 2.26) is really a characteristic of the US domestic “fortress” hubs where transfer passengers are very largely domestic, mostly with hand baggage only, do not require additional security checks, are English speaking and generally familiar with airports. This enables large volumes of passengers and flights to be processed within short connecting times. The International Transfer Hubs (focal airports) in Europe do not have such pronounced waves (except for the early morning departure peak of shorter distance flights) because their long haul flights (except for a few North American routes) do not operate frequently throughout the day, require connecting passengers to go through security checks, involve large volumes of hold baggage to be security screened and transferred between flights (and often terminals) - all of which dictate longer connecting times. So for passengers transferring between long haul/short haul flights airlines will identify the main flows to connecting destinations and schedule accordingly. An example is KLM’s flights at Heathrow from Schiphol (the continental European hub closest to the waves model and with over half its passenger numbers as transfers). This summer’s afternoon arrivals are at 1500, 1610, 1615, 1710 and 1725 which meet the demands of both the point to point and transfer markets. The growing number of airlines that operate frequent services out of Heathrow to their focal airports in mainland Europe, Middle and Far East and USA make up a second group of airlines that do not contribute to a wave effect. Normally these airlines are members of the three major alliances or have code shares with other major carriers.

9 The existence of a limited wave pattern at Heathrow where the runways are of course fully scheduled all day is mostly about aircraft diagrams to the major domestic and mainland European destinations (which have flying times of around 1 -1½ hours). The classic example was British Midland which based aircraft at either end of its main Heathrow routes (e.g. Edinburgh, Glasgow, Dublin, Belfast, Paris, Brussels and Amsterdam) each operating 4 return flights a day creating a peak every two hours. However the resultant “waves” at Heathrow were unrelated to transfers as their traffic was primarily O & D. In reality Heathrow is a more complex hub than the main continental European focal airports. BA’s share of slots even after the acquisition of BMI is still significantly less than the “national carrier” at those other focal hubs although BA now appears to have sufficient slots for the medium term with some evidence of “slot warming” on very short distance routes. Even in the 2 years before the purchase of BMI their priority did not seem to be introducing new long haul destinations with routes opened to Paris Orly, Gothenburg and Bologna. The mainland European transfer hub model appears to rely on around 70% of flights on short haul routes.

10 Within the third or more of annual passenger numbers who were transferring through Heathrow at the beginning of this decade around 30% were not flying

on BA. So a third major group using the Heathrow hub is made up by airlines operating point to point routes with many also generating significant transfer traffic. It is this group of airlines that have found slots hardest to obtain whether as new entrants or for new destinations.

11 Turning briefly to the comments on LCCs (or No Frills Airlines) (paragraph 2.33) the point about the diversity of models within Europe is well made although it does not emphasise the move for Full Service Airlines to operate parts of their short haul network with a LCC as has happened with Lufthansa/Germanwings and Iberia/Vueling. A third runway at Heathrow would almost certainly see some LCCs such as easyJet amongst the new entrants applying for slots which could have significant impact on BA's European network. Overall short haul operations in Europe still seem most susceptible to continued change.

12 The second question is:

To what extent do the three potential futures outlined in Chapter 2 present a credible picture of the ways in which the aviation sector may develop? Are there other futures that should be considered?

The three futures are stimulating but not mutually exclusive. Where there is disagreement it would be the future of Europe's major airports. Whilst it is inevitable that Europe's aviation sector will see its relative importance continue to decline as developing countries experience faster growth in passenger volumes and strengthening of their hubs, the major European airports will continue to handle a wide diversity of flights – point to point journeys are inherently more profitable to airlines and convenient to passengers than multi sector journeys through hubs. So the demand orientated scenario for the UK involves growing both the hub and non hub/regional airports. Specific comments on the futures are as follows:

- **Future 1**, continuing liberalisation, will be the case in **many** parts of the world, but in Europe and the UK in particular, the dominant role of focal airports will not be enhanced.

- **Future 2**, decline in Europe, is more likely as whatever decision is made in the UK, capacity at hub/focal airports in all of Europe will be operating at close to capacity.

- **Future 3**, integration of low-cost and full-service models, will happen to a limited extent, but there will still be a demand for both models in their 'pure' form.

13 The third question is:

How are the trends discussed in Chapter 2 (e.g. liberalisation, growth of low-cost carriers, consolidation of alliances, and technological changes) likely to shape the future of the aviation sector? Do they strengthen or weaken the case for developing hub versus non-hub capacity?

It is possible that, if Future 2 occurs, the case for developing a major 4 runway hub is weakened, although the case for additional runway capacity at Heathrow remains strong simply because of its current utilisation. The case for developing non hub capacity would be the same whichever future occurs.

<u>Chapter 3 - Characteristics of Airport Operating models</u>

14 We answer the fourth and fifth questions together:

What are the impacts on airlines and passengers of the fact that the wave system at Heathrow operates under capacity constraints?

How does increasing size and scale affect the operation of a focal airport? Is there a limit to the viable scale of an airport of this kind?

Airports are derived demand businesses and it is airlines that market and sell tickets. Certainly airports can stimulate airline interest in starting new routes with excellent market data and good facilities. But it is the passenger who makes the choice of airlines and destinations. Conversely airports can and have deterred passengers from using air services by poor operations and facilities. It cannot always be assumed that either the airport or airline always act as a proxy of passengers' views and requirements so passengers will balance their experiences against competitor airlines and hubs to determine their travel patterns. Indeed there is little unanimity in the views of either airports or airlines about such issues as capacity, development of facilities or even Air Passenger Duty. In the previous section we commented on the applicability of the "wave concept" to international transfer hubs. It should be said that the "wave" pattern is not a particularly efficient use of airline resources or airport capacity but was very much part of the market share wars between the US majors (which ultimately saw all of them enter financial administration at one time or another). Economic reality has seen some smoothing of these waves – for example American started this at Chicago in the early part of the last decade. The most extreme example of a "wave" hub and spoke is at Atlanta with 5 parallel runways whilst the only airport (indeed city) worldwide with two separate airline hub and spoke operations is Chicago O'Hare.

15 Despite what is said in paragraph 3.1 transfer hubs were thriving by the early 1960s when two European carriers – KLM and Swissair – had long haul networks way above what would have been expected from the size of their domestic market and GDP. This was achieved through transfer traffic although Swissair was hampered by the political need to have joint hubs at Zurich and Geneva. At that time those airlines used service quality to attract transfer traffic through their hub, now it is largely price driven except where the long haul network from the focal airport is very superior (eg China routes out of Schiphol) or where domestic access to the national hub is capacity restricted - London. So KLM which now connects to 15 UK airports will offer a range of cheaper fares to long haul destinations than are available through Heathrow. Similarly BA will offer cheaper fares through Heathrow from its European network than

are available using the national carriers of those countries. Where these long haul connections involve passengers in longer overall journey times than flying through or direct from their national focal airport, the transfer traffic tends to be leisure dominated (although frequency on long thin routes can attract premium fare business passengers to use an overseas focal airport) - the most profitable routes from a focal airport are those that can attract premium fare business transfer traffic. Since point to point traffic is normally more profitable, generally airlines do not develop or attract transfer volumes which would displace point to point traffic.

16 *Would expanding UK hub capacity (wherever located) bring materially different advantages and disadvantages of expanding non-hub capacity? You may wish to consider economic, social and environmental impacts of different airport operational models.*

For the UK to ignore the focal airport issue when this is the major strategy adopted by its main European competitors and increasingly widely elsewhere in the global economy, would appear to be marginalising the ability of the UK and it's airlines to compete internationally. However over reliance on this approach will be damaging to the local economies in other parts of the UK and more importance could and should be made by government to develop international services from major local airports. The comments on user costs at focal airports are of particular relevance to Heathrow which, because of the layout and design parameters of the original airport scheme, looks increasingly difficult and expensive to expand. Any development proposal therefore should demonstrate that it will not result in excessive costs to passengers which will then negate the benefits to the UK economy of that additional capacity. This point is even more applicable to proposals for a new focal airport site. In view of the network of global companies that have located offices, activities and staff in West London, the Thames Valley and adjacent Home Counties because of the proximity to Heathrow, there is a clear risk that some companies would relocate to mainland Europe if the Heathrow hub was replaced elsewhere. Indeed the EU refers to the London Urban Zone which encompasses Greater London and the outlying communities. This contains 12.9m people and is one of the largest and wealthiest catchment areas in Europe.

17 This leads into the other issues – Heathrow has operated under significant capacity constraints since the early 1970s when the EC first declared it a congested airport (that was an airport where an airline could not obtain a slot within 4 hours of that requested). Following the removal by government of the Traffic Distribution Rule which denied all new airlines starting international routes access to Heathrow, over 20 airlines moved their routes to Heathrow from Gatwick. The full impact from the distortions to operations at Heathrow as a result of this long term capacity shortage are now difficult to quantify specifically but include restrictions on BA's ability to schedule connecting services (whether waves or otherwise), new entrant airlines unable to win slots and the elimination some domestic routes (transferring those to Gatwick served O & D traffic but not transfer passengers). A few long haul new entrant airlines have started service from Gatwick but this is really only successful for airlines that are not in head to head competition with a carrier from Heathrow. (The

major exception has been Emirates which has a very volume driven model and has a good service pattern from both airports, although Etihad and Qatar have not chosen this option). The overall impact of this capacity crisis will have been fewer destinations served from London and higher fares on some routes where competition has been restricted. It is worth noting that the airline industry has an inherent characteristic of wanting to schedule services at the same time – particularly early morning European departures. This is to obtain maximum aircraft utilisation (which is why easyJet recently bought slots at Gatwick), and because the first service on a route where there are competitors sells better - business travellers go for the first departure and it is at the top or front of any sales or web booking screen. As a consequence most reasonably busy airports have constraints at some parts of the day.

18 *Do focal airports and non-focal airports bring different kinds of connectivity and, if so, which users benefit the most in each case?*

There is no doubt that large focal airport hubs are inevitably less user friendly to many passengers. This is because of multiple terminals or excessive walking distances in single terminals, extended MCTs and long aircraft taxy times. In contrast Munich is an example of a popular but smaller focal airport with less long haul routes. Heathrow has also suffered through over intensive scheduling in the morning and evening peak demand periods resulting in runway delays whenever weather conditions etc are less than ideal (e g strong winds, poor visibility, minor airside incidents) which create anxiety and delays to transfer passengers. Successful increases to the scale of focal airports therefore depend on the ability to create an efficient and customer friendly expansion and one that is cost effective (or subsidised!).

19 *What would be the competitive effects (both international and domestic) of a major expansion of hub capacity, and what are the associated benefits and risks?*

The effects of expanding UK hub capacity are straightforward. It would see more destinations with direct service (not just long haul but to such areas as the Balkans and Baltic states); more foreign airlines; more frequency on some routes; and the re-establishment or ensure the continuation of a number of domestic/British Isles routes as well as increased belly hold capacity for freight both inbound and outbound. The risks are primarily about excessive costs both to air passengers through expensive alterations and the local communities through environmental issues and congestion. The advantages of expanding non – focal airports are primarily about capacity for LCCs, other point to point carriers and most importantly developing more long haul flights from the regions (n.b. the current structure of APD hits air travel from the regions hardest).

20 It is axiomatic that focal airports and non-focal airports bring different kinds of connectivity if for no other reason than the latter group has far lower proportions of transfer passengers, but ultimately air services go to where passengers wish to travel! (There is some evidence that the LCCs stimulation of the off season short break market saw passengers choose destinations simply on the basis of

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very low fares until the impact of surging fuel prices and escalating APD eliminated most of those offers). The LCCs have revolutionised connectivity to Europe from non-focal airports as leisure orientated flights are just as available for business travel and other categories of passengers.

21 *To what extent do transfer passengers benefit UK airports and the UK economy?*

The benefits from the transfer passenger model have been well documented. For domestic transfers it opens up access to a wide range of destinations which will never justify a direct service from regional airports (as of course in the UK have Emirates and Continental/United Airlines from some non focal airports). There has also been some suggestion that Inward Investment opportunities are easier to market by regional development agencies where there is a connecting service through London (to combat the argument that if you have to connect through Holland or Germany to get there why not just locate in Holland or Germany). For international transfers the benefits are that the extra passengers stimulate the hub carrier through enabling new routes to be introduced, increasing frequency on existing routes (which is important to the business community) and enabling larger more efficient aircraft to be deployed. Other economic benefits are that UK airlines turnover increases (and hopefully profits) through imports (ie foreign nationals buying fares), employment levels grow at the focal airports and inbound leisure travel is stimulated as indeed is bellyhold cargo capacity. BA for example is able to market leisure fares selectively in mainland Europe to top up flights on days or periods when UK demand is weaker thereby having more profitable and robust schedules. For airports where road access and/or check-in are limiting factors transfer passengers bypass both constraints.

Chapter 4 - The Structure of UK Aviation Sector

22 We make some general points first before addressing the questions. The aviation legacy from World War 2 and the subsequent “Cold War” was considerable – an apparently endless supply of airfields, trained air and ground crew and surplus transport aircraft. Between 1946 and 1976 around 750 companies were licensed for commercial operations of one type or another - from pleasure flying to international carriers. An excess of airports initially fuelled start up operators but subsequently hindered the establishment of international routes – the most obvious example was Central Scotland where 3 airports (Edinburgh, Glasgow and Prestwick) served a catchment population of around 3.5M.

23 The last 20 or so years have seen radical structural change in the UK aviation sector - some market driven, others policy driven. The reduction of domestic flights into Heathrow has been referred to in para 4.9. Since 1990 when domestic traffic made up nearly 20% of Heathrow’s passengers a continuous decline now sees the share at around 7.5%. At one time or another 18 mainland cities have had air service to Heathrow – now it is 6/7(depending on whether BA’s re-opening of Leeds is long term). This decline has many causes

and included several routes that were never viable but those airlines that sold or swapped their domestic services slots for long haul routes have caused the most concern particularly to the regions. Gatwick simply does not offer comparable interlining. The second major change has been the development of BA's Heathrow product into a world class international transfer hub – with on some days half the passengers through Terminal 5 being transfers.

24 The third change has been the rise of the LCCs and in particular their business model which enabled the setting up of hubs or mini hubs at local airports country wide. This gave a new purpose and dynamism to many airports as widely diverse as Stansted, Liverpool and Prestwick but not to more sparsely populated areas - Inverness or Humberside. The LCCs have radicalised scheduled services to mainland Europe and have impacted significantly on both the IT carriers and full service airlines. The fourth change has been the rise of airlines connecting the UK to their focal airports in mainland Europe, Middle East Far East and USA from both the two main London Airports and many other airports around the country. The final change has been the very substantial reduction in the number of new start carriers over the last five or so years and indeed the loss of several well established names.

25 The one remaining model to which reference has not been made is the Long Haul Low Cost airline. For many years airlines have struggled with this (from Laker and People's Express to Zoom and Air Asia X) although there does seem to be some mileage in this concept for Asian routes. It would be unwise to discount it altogether but it seems unlikely to have major impact in the short/medium term. Conversely the short haul LCCs are gradually extending into middle distance routes.

26 The evidence from both worldwide and the UK is that the UK could not support two focal airports whether in the London area or elsewhere (which is not to say that there cannot be or is not useful transfer flows whether informal or formal through other airports). Worldwide there are several examples of countries with more than one or multiple hubs including the US, China and Germany, but the geographic, economic and population demographics of those countries are very different to the UK. In the UK various secondary transfer hubs have not survived. The classic example was the Edwards Committee's vision for a second hub second force airline at Gatwick. This failed for several reasons including the difficulty of integrating schedules on a busy single runway. But the main issue was that BCAL could not get higher yield passengers to use its routes when there were competing services from Heathrow (there was around a 10% shortfall in loads mostly in business/first cabins despite BCAL offering a demonstrably superior service product). BA then tried a multi-hub approach with hubs at Heathrow and Gatwick (the "hub without the hubbub") and smaller hubs at Manchester and Birmingham (Eurohub) operated by BA Regional (which was probably "overcooking" the hub concept). That these failed was partly due to internal issues within BA. Other "mini" transfer attempts by BMI at Manchester and Air Berlin at Stansted did not survive for long. Even so a number of airports continue to handle useful numbers of transfer passengers. The possibility of self-connecting passengers referred to at paragraph 2.39 may be attractive to short haul leisure passengers which are a very significant sector

at Gatwick and Stansted, although this will be balanced by the withdrawal of Flybe from Gatwick and its connection arrangements.

27 *Is there any evidence that the UK (or individual countries and regions within the UK) are disadvantaged by using overseas focal airports?*

There is no inherent reason why using a mainland European or Middle East hub should increase costs to UK passengers – the standard pricing pattern for journeys from the UK through these hubs is either the same as or lower than through Heathrow. However as mentioned previously there may be some reluctance for foreign nationals to transfer through a third country into the UK. In the final analysis it is passengers that decides on their preferred routing and balance such factors as cost, timings and convenience. Turning to the UK economy as a whole, passengers transferring in this method are a net loss to the UK Balance of Payments and UK employment levels.

28 *What specific characteristics of the UK and its cities and regions should be considered? For example, does the size of the London origin and destination market and the density of route networks support or undermine the case for a dominant hub?*

There are certain key characteristics which are relevant. The UK has largely but certainly not entirely withdrawn from manufacturing – and the main drivers of international business traffic are those service industries which compete in the global economy. These are the prime generator of premium yield fares and tend to be concentrated around London, the SE and Thames Valley because Head Offices and European Corporate offices tend to be located in and around capital cities (which is also why Edinburgh has a higher frequency of flights to Newark than Glasgow even though Strathclyde is a much larger catchment area) and this is a main factor in Heathrow's success as a focal airport (and also the success of London City). However it is also important to support those parts of the manufacturing sector that are competing in worldwide export markets which are located away from London and the SE. This requires good connectivity from local airports. The other specific characteristics of the UK are that it is an island and experiences very indifferent weather. These were the drivers behind the UK Inclusive Tour airlines (which were the original low cost carriers in Europe) and created the market conditions on which the LCCs have capitalised to operate their multitude of flights from UK airports.

29 *Could the UK support more than one focal airport? For example, could an airline or alliance establish a secondary hub outside London and the south east, for instance in Manchester or Birmingham?*

Currently, there is no UK airline apparently willing to set up a secondary hub outside London and it is airlines not airports that operate hubs. BA has made attempts in the past, but was not successful. BMI, despite being Midlands based, focused on Heathrow. Star Alliance appears to have scaled back its ambitions to set up a transfer hub in the new Terminal 2 at Heathrow. Outside of Heathrow Flybe has a reasonable network of short haul services but no long haul, and is now retrenching by pulling out of Gatwick. Star Alliance or Skyteam are more likely to want to feed their European focal airports (Frankfurt, Munich, Paris, Amsterdam). The only option would therefore seem to be for a more distant long haul airline (eg. one from the Emirates) to establish a hub using a network of short haul flights to connect with other parts of the UK and the rest of Europe. Such an airline might find it profitable to contract with a short haul airline to provide the connecting services. Alternatively, the short haul links could be provided by LCCs, although these depend on self-connecting passengers rather than through ticketing. As well as connecting passengers, the hub would have to have a sufficient local point-to-point market, and Manchester and Birmingham have this potential.

30 If additional capacity is provided for a London focal airport, it is unlikely that any airline, UK or non UK, would set up a major secondary hub outside London. The only scenario where a regional hub might be established is therefore where no additional capacity is provided in the South East. This scenario has, of course, many disadvantages, but is not out of the question.

31 *To what extent is it possible to operate a successful 'constrained' focal airport by focusing on routes where feeder traffic is critical and redirecting routes which are viable as point-to-point connections to other UK airports?*

It clearly is possible to run a successful constrained focal airport - both Heathrow and Newark are examples. Heathrow Airport Ltd is now encountering a cost of use issue as the massive investment in T5 and now T2 has to be reimbursed from passenger charges without any growth in air transport movements (and commercial income already being included the "single till"). The pertinent issue is whether a constrained hub will meet the ambitions and aspirations of the London, SE and UK passenger markets and serve the needs of the UK economy. The evidence to date is that it will not.

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