Airports Commission Response

Paper 04 – Airport Operational Models

Introduction

RDC Aviation is an independent software, data and consultancy business headquartered in Nottingham. It provides specialist products and advice to airline, airport and investor clients within the aviation business and has recently worked on advisory assignments and long term traffic forecasts for operators and investors in the global air transport business. We have an international reputation built on detailed analytical modelling and a robust understanding of the air transport industry. In the last 18 months we have worked on projects involving analysis of the operating environment and operating models of major airports and major airport projects including:

- UK (Stansted, Edinburgh, Newcastle)
- Japan (Kansai International, Osaka Itami)
- Portugal (Lisbon, Porto)
- Turkey (Istanbul third airport, Antalya)
- Mexico (Mexico City)
- Nigeria (Lagos)

Our business is staffed by airline planners with over half-a-century of experience in airline and alliance network planning.

This response is written on behalf of RDC Aviation Limited by Peter Hind, Managing Director. At the time of writing we have no conflict of interests or vested interest in the outcome of the Commission; however we have a strong commitment to the UK air transport industry and contributing to the discussion about how best to solve the capacity bottleneck that has seen UK aviation fall behind the rest of the world in recent years.

Peter is a former **network planner and alliance manager** at bmi british midland, with significant experience in **alliance network strategy** and the **London airport system**. For the past decade he has been employed at RDC Aviation and is also a **visiting lecturer at City University**, London, where he teaches the **Sustainable Aviation** module of the MSc in Air Transport Management,

Section Questions

2. A rapidly changing landscape: airports, airlines and route networks

The Commission is particularly interested in answering the following questions:

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

Future 1 – in the next two decades there are likely to be fewer significant opportunities for additional de-regulation beyond ASEAN open skies. Political willing to open skies will be tempered by the loss of the weaker national carriers. The role of liberalisation will have a greater effect on regional traffic rather than inter-continental, as it did with domestic US, domestic EU and will do with intra-ASEAN. Inter-continental traffic is very likely polarise into a limited number of alliance-led hub airports and low cost carriers (LCCs) will provide the vast majority of point-to-point short haul traffic.

Future 2 – the MEB3 airlines (Emirates, Etihad, Qatar) are in a position to exploit open skies to offer the first successful global networks based around 5th 6th and 7th freedoms. Without investment it is plausible that European hubs will play a secondary role. This is of huge concern within the UK regions where, although there are options to connect via European and non-European hub airports, not having access to a hub airport within our country offers very significant challenges in conducting business overseas, particularly the Americas.

Future 3 – this seems very unlikely. Although the LCC sector is moving towards some of the characteristics of the 'full service' model (seat assignment etc) there are such significant differences in operating models that the integration or partnership of two service types is unlikely.

How are the trends discussed in this chapter (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-link capacity?

The US was the first market to deregulate in the 1970s and is widely seen as the most advanced aviation model globally. It maintains a number of hub-and-spoke carriers, competing with LCCs for short haul traffic. Without the benefit of Chapter 11 bankruptcy protection it is likely that there would now be fewer network carriers but none-the-less, the model is sustainable – particularly for international travel. Therefore it seems likely that the future will contain three mainstream models – hub/alliance; low-cost; regional.

The Commission must appreciate that the **"hub" is an airline operating model** in the same way that no-frills is an airline operating model. It is simply incorrect to assume that an airport can influence the strategy of an airline to the extent that it can force it to become a hub carrier. Look at Stansted, built to be a full service airport but now dominated by an ultra low-cost carrier. Although airports may invest in technology to enable self-interlining, if point-to-point air carriers find that it slows down their operational efficiency, they will simply not participate.

The complexity of running a hub runs FAR BEYOND the operational assistance that an airport can offer (fees, baggage system, and ease passenger of transfer). It includes national factors – taxation, visa policy including TWOV (Transit Without Visa) and logistical factors including the development of highly complex operational planning (crew bases, aircraft utilisation) and competitive pricing models to optimise revenue from online connecting markets. For example, the mechanics a UK hub carrier uses to compete for traffic from the US to Germany and how it deals with point-of-sale pricing is an area far outside the control of government or an airport.

We have one hub carrier in the UK – British Airways. In previous times, the author of this paper was **part of a team trying to implement a STAR Alliance hub at Heathrow** for bmi british midland, through a tri-lateral joint venture with Lufthansa and SAS; and a wide-ranging code-share relationship with, amongst others, United, Air Canada, Singapore Airlines and Virgin Atlantic. We were unable to make it work – for several reasons. Our network density was insufficient to match that of BA; integration of frequent flyer schemes, corporate and leisure contracts was almost impossible; and the commitment of the non-UK carriers was NOT TO THE UK market. Simply, Lufthansa would rather carry traffic via its home hub airports using its own aircraft than interline via an alternative hub. Whilst the theory suggests that deregulation increases competition and if there's a sufficient market to warrant new service in an offline market, an airline will commence service, the reality is that **no carrier has ever established a successful and sustainable hub operation based outside of its home nation**, when it also has a hub within its home nation. For many reasons, no matter what happens with the future of the airline model, this is very unlikely to change.

The UK needs a hub airline, and therefore airport, to maintain competitiveness of the UK. It needs air service feed from the more remote UK regions and excellent surface access from the nearer cities. It needs to facilitate a based hub carrier to offer a range of network destinations similar to those of its European and ME competitors through favourable bilateral and taxation policies.

3. What are the key characteristics of the different airport operating models?

The Commission is interested in views on these issues. In particular we would like to invite submissions which shed light on the following questions:

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

Increased delays, higher lost bag rates, uncompetitive total journey times and a lower combination of potential connecting options.

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

Modern airport operators are skilled in maximising use of assets. Clearly the ideal model would be to have one or two very large, modular terminals to facilitate connections easily. However within reason most airports could be expanded to accommodate a significantly larger number of passengers than they already handle

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

Yes absolutely. As already noted, the hub model is an airline operating model and the success of the hub goes hand-in-hand with a well-run hub carrier. Feed traffic from connecting points brings a wider network of routes to the UK than could be sustained by expanding point-to-point airports. The danger now with Heathrow is that short-haul connectivity is being sacrificed for more profitable long haul. Is it to the advantage of the UK regions to have 15 flights a day between London Heathrow and New York but no service from Inverness to Heathrow? The pure economic argument probably shows the New York route to give far greater economic benefit to UK PLC, but it doesn't do anything at all for the economy of Inverness.

Look at the history of regional long haul services in the UK. Whilst several airports have attracted US, Asia and Middle East services, more of these routes have failed than succeeded because of the lack of demand – not the leisure point-to-point volume, but the lack of business traffic and connecting passengers. The **long haul business traveller** underpins the route choice of most network carriers and in this respect London plays on a global scale that the rest of the UK, not to mention most of Europe, is unable to match.

Whilst there is attractiveness in having regional international flights – the reality is that other than a few select carriers, the modern aviation world is very unlikely to see a significant uplift in service to secondary, non-hub airports. We must remember that when evaluating new routes, inbound airlines from, say, Asia, have the pick of **anywhere in Europe** to fly. If Copenhagen is less profitable than London but more profitable than Birmingham, the service will go to Copenhagen if London is full.

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

Hub airports bring a mix of short and long haul connections; they enable stopover traffic which improves tourism and business connectivity. They tend to have a broader base of connecting, inbound and outbound traffic.

Non-hub airports serve local catchment areas and are largely driven by outbound traffic. They generally operate as a major base for a small airline or a small base for a larger airline. In either case, the incumbent carrier lacks either the financial muscle or strategic interest in developing the network to its fullest capability.

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

Airline competition is not a domestic matter, it is international. Failure to enable the UK to develop a better hub airline and airport will lead to loss of traffic to other hub airports and the long-term decline in the attractiveness of the UK as a centre for global trade. It will reduce the competitiveness of the regions and almost certainly lead to a widening in the disparity that already exists in prosperity between London and the rest of the country.

The downside risk is that the hub airline fails and the UK is left with a lack of adequate service provision and too much airport capacity.

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

They support the network development of the hub carrier and therefore enable us to reach a wider selection of routes than would otherwise be sustainable. Look at the lack of service provision in Czech Republic, Belgium, Switzerland, Austria and Hungary since their network carriers scaled back (or failed) – connectivity is lost and international competitveness is impacted.

4. The structure and operation of the UK aviation sector

The Commission would be interested in any submissions discussing these issues. In particular, respondents may wish to consider the following questions:

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

Reliance on overseas hubs means that we are reliant on the strategy of overseas governments, airlines and regulators. In the event that these hub airports become constrained, it is equally plausible that short, less profitable destinations will be axed in favour of long haul – as we've seen at Heathrow. It would thus be possible to see a situation where various UK regional airports lose their connection to, say, Amsterdam because the airport is operating at maximum capacity and the hub carrier decides to pull back from the UK market. THIS MUST NOT BE ALLOWED TO HAPPEN.

For example, since the Air France/KLM merger, regional airports with a connection to Amsterdam but not Paris – e.g. Humberside, Durham, Cardiff – have lost vital connections to markets that KLM no longer serves from Amsterdam. It is not economically or strategically viable for Air France to add a Paris service to the same UK airports as have an Amsterdam only. The loser is the UK regions. Again.

Equally, we are at the mercy of the pricing strategy of those airlines. A hub carrier – let's take KLM or Air France – makes its money on the long haul network. Thus, when looking to fill seats on the long haul flight with connecting traffic, it will select those markets with the strongest price-demand. For example, the Paris CDG to Beijing service will have connecting traffic from Scandinavia, the UK, Spain and various other markets. The airline will offer seats for sale in the market where it feels demand is strongest – and there is a risk that this either means UK consumers pay more, or perhaps do not have access to seats at all, because of the strength of another market.

The UK regions should not be reliant on other governments or jurisdictions maintaining a pro-aviation policy

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?

No, quite the opposite. It gives the UK an opportunity to develop the most diverse and strongest network in Western Europe.

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?

Not likely – history shows that Heathrow is the preferred entry point for London. STAR Alliance attempted to create a hub at Heathrow and failed. British Airways attempted a dual-hub strategy in London with its Gatwick hub – it failed. There is only one obvious example of an airport that supports two hub carriers – Chicago O'Hare, with American and United. There are very few examples of airlines operating more than one hub, other than in the US and Lufthansa in Munich and Frankfurt; though the latter is circumstantial and would be unlikely to be repeated in a blank canvass environment.

Sadly it is highly unlikely that any airline would seek to establish a hub at an alternative UK airport. What is there to be gained? Local demand is too weak and, despite the rosy long-term forecasts, probably always will be. If cities such as Vienna, Brussels, and Barcelona struggle to support a decent network of long haul services, it seems unlikely that Birmingham or Manchester would be able to do so.

Development of a hub-and-spoke network requires a delicate balance of local and transfer demand. Too much transfer traffic and the hub is easily undermined.

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 is impossible for anyone other than the operating airlines to make this happen – it would require regulation of the airlines' ability to choose what to sell in which markets; return to route licencing and be unworkable in every respect.

The reality is that, once completely constrained, transfer traffic would be lost to other hubs and the focal airport will offer a reducing selection of high revenue markets.

Specific Questions of Interest

The following answers relate only to questions not answered elsewhere in this response.

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?

Hub capacity should be increased to enable the UK to remain on a competitive footing with other European and ME hubs and nations. Those European countries that have either insufficient local demand to support a hub carrier or where the carrier is weakened by either political or other factors – Austria, Hungary, Portugal, Italy, the Scandinavian countries – have inferior connectivity to global markets. This entails longer or indirect routings and greater time/expense for business and leisure travellers which in turn reduces global appeal. *It is interesting to note that there are more flights* *from Heathrow to New York than from the whole of (individually) Spain, Italy, Switzerland and the Netherlands to anywhere in the US.*

Look at the evidence base globally – whilst there have been new airports built in many parts of the world over recent times, THERE HAVE BEEN NO NEW HUB AIRPORTS DEVELOPED i.e. the absolute number of hubs is falling. This is because of the consolidation amongst airlines. We have a simple decision to make, do we want to be a global hub or not.

There is also a good argument for adding runway capacity at another site in the South East to accommodate an ultra-long term picture. Outside of the SE, there seems little need for additional runway capacity at any of our regional airports.

IT IS VITALLY IMPORTANT FOR THE UK ECONOMY – THE SOUTH EAST AND EVEN MORE THE REGIONS – THAT WE ARE IN CONTROL OF OUR OWN DESTINY WHEN IT COMES TO AIRPORT ACCESS. RELIANCE ON OVERSEAS JURISDICTIONS MAINTAINING A SUPPORTIVE PRO-AVIATION STANCE PUTS OUR LONG-TERM COMPETITIVENESS IS REAL JEOPARDY.

Contact Details

Peter Hind
RDC Aviation Ltd
The Hub
40 Friar Lane
Nottingham
NG1 6DQ

t: 0115 852 3040
d: 0115 852 3050
m: 07740 477882