

Air and High Speed Rail Briefing Paper – The Realities of Rail

**Exploring the impacts of the development of High Speed Rail in the UK
and considering the example of the existing link to the Continent.**

March 2010

A Introduction

- **Context**

Demand for all forms of travel both within and to and from the UK has significantly increased over recent years.

BATA welcomes the current debate about the future development of High Speed Rail (HSR) in the UK. We see HSR as a complementary mode of travel rather than a replacement for domestic and short haul air travel. Indeed, we strongly support a modern integrated transport infrastructure for the UK which encompasses all modes of transport, including rail and air. However, we believe, even if a comprehensive HSR network was built, air travel will still remain the best, most practical choice for many passengers and a necessity for many long distance and 'over water' journeys within the UK.

- **A Truly National Perspective**

The national debate about transport infrastructure is all too often viewed from an overly 'London-centric' viewpoint. Interregional air links (for instance those between Scotland and Wales or the South West of England and East Anglia) are important to those regions and cannot easily be replicated by current proposals for HSR.

- **A Matter of Geography**

Additionally, some domestic air services, such as those operated in the Scottish Highlands and Islands, and those linking Northern Ireland and the Channel Islands with cities and regions in the rest of the UK are not only crucial but a necessity as a result of simple physical geography.

Indeed, in 2009, 52% of domestic routes (94 of the 181 city pairs) in the UK which carried more than 10,000 passengers per annum, were 'over water'.

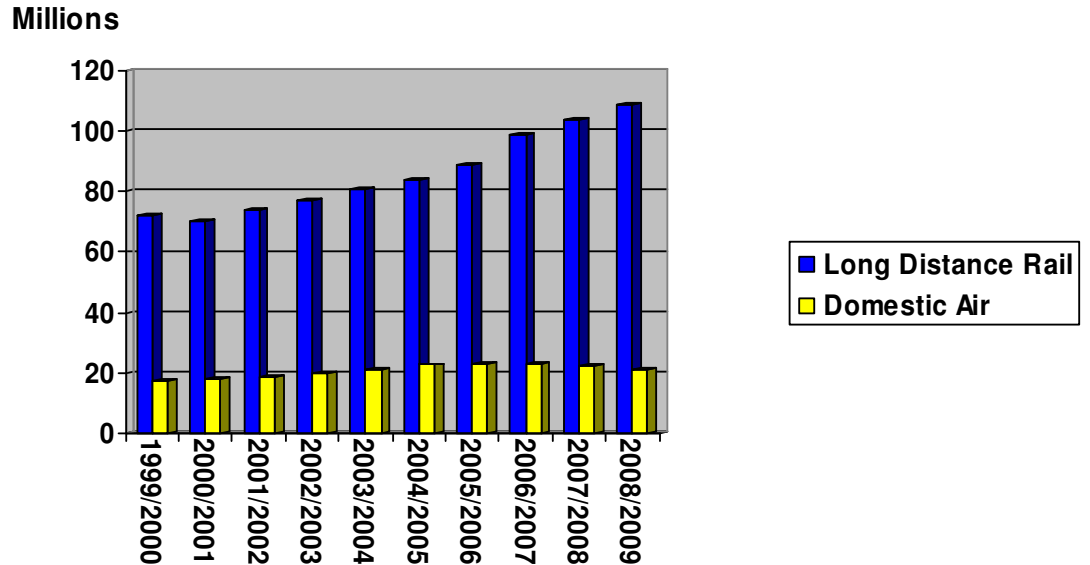
Key Findings

- Nearly 85% of domestic routes, carrying 60% of passengers are either over water or involve locations that cannot or will not be served by HSR
- At Heathrow 60% of passengers on domestic routes are transferring to another flight
- Two thirds of domestic destinations from London's airports are on routes unlikely to be affected by HSR

B Modal Share

Domestic Travel

Number of domestic passenger journeys on the national rail network and by air
– 1999/2000 to 2008/09



The Office of Rail Regulation reports that in 2008/09, 109 million long distance rail journeys were made in the UK. This compares with 21 million by air in the same period.

Source: ORR National Rail Trends Chapter 1, Rail Usage (Published 11 February 2010)
Table 1.2b and DfT GB Transport Statistics 2009 – Section 1, Modal Comparison, Table 1.2

In the analysis of the 2008 Annual Airport Statistics, published in March 2009, the CAA said; “In 2008, 25 million* passengers took domestic flights. This represents a fall of 4.8 per cent (1.2 million) on 2007, a trend that has been apparent for a number of years”.

*Note: CAA report this was actually rounded up from 24.3 million

Source: CAA Press Release, “CAA Airport Statistics Show First Fall In Passenger Numbers For 17 Years”, (Published 16 March 2009)

Provisional figures for 2009 calculated by BATA indicate a further fall of around 8 per cent (to 22.37 million) on the 24.3 million in 2008.

Source: CAA Monthly Airport Statistics 2009, Domestic Air Passenger Traffic Route Analysis, Table 12.2

Short Haul Travel

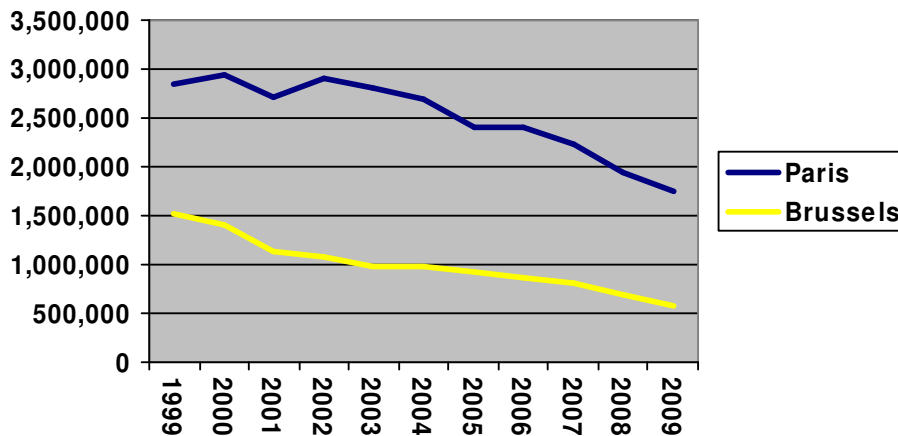
Between London and Paris/Brussels

There has been some transfer of traffic from air and indeed maritime to rail since rail services started operating through the Channel Tunnel.

According to CAA data, in 2009 there were 0.577 million passengers between (to and from) London's airports and Brussels and 1.74 million between London and Paris (Charles de Gaulle, Orly and Le Bourget airports).

Source: CAA Monthly Airport Statistics 2009, International Air Passenger Route Analysis, Table 12.1

Number of air passengers to/from London and Paris and Brussels 1999 to 2009



Source: CAA Annual Airport Statistics (1999-2009), International Air Passenger Route Analysis, Table 12.1

We believe that Eurostar has a market share of around 80% with 9.2 million passengers carried in 2009, compared to 20% travelling by air. However, this illustrates that even with a fully developed HSR link offering journey times of around 2 to 2.5 hours, demand still exists for air services.

Source: Eurostar Press Release, "Eurostar Release Annual Figure For 2009" (Published 19 January 2010)

C Domestic Air Travel

Domestic Percentage of Total UK Air Passengers

In 2008 there were around 212.6 million terminal* passengers at UK airports and about 11% of those (22.8 million) were domestic terminal passengers. In 2009 the proportion is expected to be broadly similar at around 10 - 11%, while actual numbers fell to 22.1 million.

Source: DfT GB Transport Statistics 2009, Aviation, Table 2.2b

NB: *Terminal passengers are defined as passengers joining or leaving an aircraft at a United Kingdom airport (a passenger who changes from one aircraft to another, carrying the same flight number, is counted as a terminal passenger both on arrival and departure). Domestic terminal passenger numbers are adjusted to eliminate double counting.

In 2009, the top 10 UK domestic air routes by scheduled passenger numbers were:

Between	And	Passengers
London Heathrow	Edinburgh	1,305,830
London Heathrow	Glasgow	1,079,970
London Heathrow	Manchester	908,723
London Gatwick	Edinburgh	647,908
London Heathrow	Aberdeen	641,294
London Gatwick	Jersey	555,906
London Heathrow	Belfast City	522,676
London Gatwick	Glasgow	514,660
London Heathrow	Newcastle	475,615
Belfast International	Liverpool	397,052

Source: CAA Annual Airport Statistics 2009, Domestic Air Passenger Route Analysis, Table 12.2

Domestic Percentage of Flights from UK Airports

In 2008, there were 1.94 million air transport movements (landings or take offs). 390,000 of those were domestic (just over 20% of the total) and around 1.55 million were international movements.

Source: DfT GB Transport Statistics 2009, Aviation, Table 2.2a

Domestic Percentage of Total London Heathrow Flights and Passengers

Currently there are around 1000 domestic flights (500 arrivals and 500 departures) a week at Heathrow. In July 2009 they accounted for 11% of all flights and 7.6% of all passengers. There are only six domestic destinations (Aberdeen, Belfast, Edinburgh, Glasgow, Manchester and Newcastle) now served from Heathrow, down from a peak over 20 in the early 1990s.

Transfer Percentages on Manchester/Edinburgh/Glasgow to London Heathrow:

Between around 40% and 70% of passengers on domestic flights into Heathrow are transferring there onto another plane for a connecting flight. The average is 60% for all domestic flights.

Edinburgh	48.6%
Glasgow	40.9%
Manchester	74.0%

And from the other three domestic destinations with services to Heathrow:

Aberdeen	46.3%
Belfast City	36.7%
Newcastle	55.8%

Percentage of domestic routes “over water” and involving regions unable to be served by High Speed Rail

In 2009, just over 16% of the domestic air routes which carried over 10,000 passengers were between cities that are commonly accepted as being likely to be directly served by HSR (these are London, Birmingham, Manchester, Newcastle, Glasgow, Edinburgh and Leeds). These services carried around 8.78 million passengers in 2009, just 40% of the total.

52% of domestic routes were “over water” and around another 31% served places not likely to be part of any early HSR scheme due to their geographical location (cities such as Aberdeen, Inverness, Plymouth and Cardiff). In total, these routes carried about 60% of domestic passengers (8.81 million or 40% and 4.37 million or 20% respectively).

It is apparent therefore, that nearly 85% of current major domestic routes cannot be served by High Speed Rail and that these routes account for more than 60% of domestic air travel by passenger numbers.

Number of scheduled air passengers between cities on:

Example of Proposed HSR Route A – (London – Birmingham – Manchester – Leeds – Newcastle – Edinburgh – Glasgow)

Between	And	Passengers - 2009
London	Birmingham	None
London	Manchester	1,218,827
London	Leeds	51,591
London	Newcastle	726,836
London	Edinburgh	2,969,264
London	Glasgow	2,339,926
Birmingham	Manchester	None
Birmingham	Leeds	None
Birmingham	Newcastle	16,176
Birmingham	Edinburgh	335,999
Birmingham	Glasgow	269,411
Manchester	Leeds	631
Manchester	Newcastle	None
Manchester	Edinburgh	158,292
Manchester	Glasgow	100,275
Leeds	Newcastle	None
Leeds	Edinburgh	18,960
Leeds	Glasgow	19,923
Newcastle	Edinburgh	None
Newcastle	Glasgow	None
Edinburgh	Glasgow	None

Total **8,226,111**

Example of Proposed HSR Route B – Network Rail Preferred Route (London – Birmingham – Manchester – Liverpool – Glasgow – Edinburgh)

Between	And	Passengers - 2009
London	Birmingham	None
London	Liverpool	None
London	Manchester	1,218,827
London	Edinburgh	2,969,264
London	Glasgow	2,339,926
Birmingham	Liverpool	None
Birmingham	Manchester	None
Birmingham	Edinburgh	335,999
Birmingham	Glasgow	269,411
Liverpool	Manchester	None
Liverpool	Edinburgh	None
Liverpool	Glasgow	None
Manchester	Edinburgh	158,292
Manchester	Glasgow	100,275
Edinburgh	Glasgow	None

Total **7,391,994**

Note: London includes 5 London airports of Luton, Gatwick, Heathrow, City and Stansted
 Glasgow International and Prestwick airports combined for Glasgow
 Note: HSR1 Route taken from Guardian newspaper example of August 2009

Source: CAA 2009 Airport Statistics, Domestic Air Passenger Route Analysis – Table 12.2

D Comparisons with other countries operating High Speed Rail

France, Spain, Germany and Japan are often used as examples of countries that operate successful HSR routes with a corresponding impact on domestic air travel. Indeed, Network Rail, in their document ‘Meeting the Capacity Challenge’, - Making the Case for New Lines’ published on 26th August 2009 said:

“Experience across Europe has shown how high-speed rail generates large revenue streams, takes significant traffic off roads and can almost eradicate domestic air travel.”

Source:
http://www.networkrail.co.uk/documents/About%20us/New%20Lines%20Programme/5886_NewLineStudy_synopsis.pdf

We believe that statements such as this fail to recognise the reality of domestic air travel markets in those countries with High Speed Rail networks.

Domestic Links from Capitals and Main Hubs

France

There are at least **30** domestic destinations (mainland France and Corsica) served from **Paris** Charles de Gaulle and Orly airports, including cities such as Marseille, Lyons, Toulouse, Strasbourg, Brest, Nantes, Bordeaux and Nice.

Flights also continue to be operated to short haul destinations such as Amsterdam, Brussels, Frankfurt and Cologne.

Source: Aeroports de Paris website:
<http://www.aeroportsdeparis.fr/adp/en-gb/group/home/>

Spain

There is still significant demand for domestic air travel within Spain, driven in part by the size and geography of the country and the need to maintain links with the Canary and Balearics Islands.

There are over **30** domestic destinations served from **Madrid** Barajas airport including Almeria, Alicante, Barcelona, Bilbao, Girona, Malaga, Santander, Seville and Zaragoza.

Source: AENA (Spanish Airports and Air Navigation) website
http://www.aena.es/csee/Satellite?Language=EN_GB&SiteName=Destinos&c=Page&cid=1043051457943&pagename=Destinos&pestaana=aena

Flights are also operated to short haul destinations such as Nice, Montpellier, Marseille, Lisbon and Porto.

Germany

Over **15** domestic routes are served from **Berlin's** two airports (Tegel and Schönefeld)

Source: Berlin Flughäfen website
<http://www.berlin-airport.de/EN/ReisendeUndBesucher/Reiseplanung/Flugplanung/suche.php?direction=WB&airport=ber>

Frankfurt, Germany's main aviation hub, offers **14** domestic routes including to Berlin, Bremen, Dresden, Dusseldorf, Hamburg, Hanover, Leipzig, Munich, Nuremberg and Stuttgart. These are in addition to the AirRail Service which connects Frankfurt airport by HSR with Cologne, Bonn and Stuttgart.

Source: Frankfurt Airport Timetable, July – October 2009:
<http://www.frankfurt-airport.com/cms/default/dokbin/358/358223.flugplan20093.pdf>
http://www.frankfurt-airport.com/cms/default/rubrik/25/25047.airrail_service.html

Flights are also operated to short haul destinations such Luxembourg, Brussels, Antwerp, Paris, Amsterdam and Vienna.

Japan

There are over **40** domestic destinations served from Haneda Airport in Tokyo, with Boeing 747's famously being flown on some of these routes.

Source: Haneda Airport website
<http://jatns.tokyo-airport-bldg.co.jp/en/flight/domestic/timetable/>

UK (South East England To/From UK Regions)

There are **15** domestic destinations currently served by the combination of London's 5 airports (Heathrow, Gatwick, Luton, City and Stansted). They are:

- **Edinburgh**
- **Glasgow (International and Prestwick)**
- Dundee
- **Aberdeen**
- Inverness
- **Belfast (City and International)**
- Londonderry
- Jersey
- Guernsey
- Isle of Man
- Plymouth
- Newquay
- **Manchester**
- Leeds/Bradford
- **Newcastle**

Bold indicates served from Heathrow

As can be seen, of these only **three** are on routes within England where HSR is a potential alternative (Manchester, Leeds/Bradford and Newcastle) and only **two** more if HSR was extended to Scotland (Edinburgh and Glasgow). Of the remainder, **five** are over water (Jersey, Guernsey, Isle of Man, Belfast and Londonderry) and **five** are in South West England or remoter parts of Scotland (Newquay, Plymouth, Inverness, Dundee, Aberdeen) and not likely to be part of any HSR network in the foreseeable future.

Hence, **two thirds** of domestic destinations served by London's airports are unlikely to be affected by HSR.

The Network Rail preferred HSR route, announced in August 2009, would connect only **three** of these domestic routes (Manchester, Glasgow and Edinburgh) with London.

Following is more information about the domestic air travel market in these countries.

The European Context



At the end of 2008, the website anna.aero reported that:

“In 2007 the UK domestic air travel market ranked as the third largest in Europe with 25.5 million passengers, some way behind Spain (44.5 million) and just behind Italy (with 28.0 million). Germany with 23.8 million and France with 23.2 million are not far behind. However, while Spanish domestic traffic grew by 9% in 2007, and Italian and German domestic passenger numbers were up 8% and 6% respectively, UK domestic air traffic fell by around 2%.”

Source: 5th December 2008: Airline Network News and Analysis “Flybe heading for #1 in UK domestic market; overall demand down around 4% in 2008”

<http://www.anna.aero/2008/12/05/flybe-heading-for-no-1-in-uk-domestic-market/>

France



With 750 daily flights in 2010, Metropolitan France has a very dense domestic network: Air France operates 115 routes, including 76 which inter-link the French provinces without going through Paris.

There are 39 direct routes from the Main French cities to and from Paris-CDG or Paris-Orly, so that all the French regions are linked to the rest of the world, not forgetting routes on departure from the French regions via the other connecting hubs of the Air France-KLM group.

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Source: <http://corporate.airfrance.com/en/network/the-air-frances-regional-network/a-powerful-regional-network/>

Spain



“In the 2009 summer season, Spanair will operate a total of 756 domestic weekly flights to/from Barcelona....; it will operate 550 domestic flights to/from Madrid. Spanair will offer 820 weekly mainland flights in 21 domestic routes. The company will also offer service in 138 flights in the Air Shuttle service Barcelona-Madrid: 12 dailies from Monday to Friday; 4 on Saturday and 6 on Sunday.”

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Source: <http://www.spanair.com/web/en-gb/About-Spanair/Spanair-News/Summer-2009-Schedule-/>

The Iberia Group serves 38 domestic destinations within Spain

Source:

<http://grupo.iberia.es/portal/site/grupoiberia/menuitem.8d4d9fb9661bc259f54c0f10d21061ca/>



Germany

Unlike France and the UK where domestic travel is dominated by flights to and from Paris and London, Germany's domestic market has no such hub. Nine city-pairs experienced demand of between one and two million passengers last year. Of the top 15 domestic routes only two showed a fall in traffic in 2007. These were the two shortest routes of fewer than 300 kilometres between Frankfurt and Düsseldorf (down 4.9%) and Frankfurt and Munich (down 4.7%). These 15 routes account for around 70% of all German domestic air travel.

Lufthansa operated 45 domestic routes in the week of 22 September 2008 and Air Berlin 35.

Source: <http://www.anna.aero/2008/09/26/air-berlin-gaining-ground-on-lufthansa-in-germany-by-acquisition-and-mergers/>



Japan

In the first three quarters of the Financial Year 2009, 28.5 million passengers flew on domestic routes with JAL Group airlines and in the same period the 2009 Financial Year, over 30 passengers flew with ANA Group. The total figures for the 2008 Financial Year were 41.15 million (JAL) and 42.75 million (ANA)

Source: <http://www.jal.com/en/traffic/> and http://www.ana.co.jp/eng/aboutana/press/index_sm.html