

WHO SAYS THERE IS NO ALTERNATIVE?

An assessment of the potential of rail to cut air travel
(with particular reference to Heathrow)



With this report RMT becomes the first union to look for an environmentally acceptable alternative to expansion at Heathrow. The report finds that a good rail service can provide a viable alternative that is not just more environmentally-friendly but also contributes much more to the UK economy and job creation.



Summary

This short report has assessed the evidence from earlier studies that investment in rail could provide a viable alternative to expansion at Heathrow.

It has found that:

- Well over a third of all flights using Heathrow are short-haul
- 100,000 flights at Heathrow out of a total of 473,000 (in 2006) serve destinations where there is already a viable rail alternative
- Another 100,000 are to places where rail could offer a potential alternative
- The UK is being left behind as much of the rest of Europe invests in fast rail services
- Where high-speed rail lines have been opened, there has been a significant switch from air to rail
- Rail has significant environmental advantages over air
- Investment in rail would create jobs in the rail and related industries and significantly boost employment in the manufacturing, construction and engineering sector
- Investment in a fast rail network would bring a greater economic return than the current plans to expand Heathrow.

It has concluded:

There is the potential for a significant number of air trips from Heathrow to switch to rail. *But that would require:*

1. Government commitment to a long-term, strategic approach, backed up by significant funding.
2. A clear recognition of the social, environmental and economic benefits that investment in rail can bring.
3. The willingness to provide initial subsidy to keep fares low so that the trains attract sufficient passengers, including those transferring from the airlines.
4. A system which recognizes there is a place for centrally-driven, long-term government planning; which acknowledges that this cannot be left to the vagaries of the market.
5. Trade unions have to be centrally involved in a nationally planned and integrated transport strategy to ensure a Just Transition to more environmentally sustainable forms of transport.

Replacing Short-Haul Flights at Heathrow

Well over a third of all flights using Heathrow are short-haul. A study carried out by the campaign group HACAN (1) showed that of a total of 473,000 flights which used the airport in 2006, 100,000 served 12 destinations where there was already a viable rail alternative and a further 100,000 flights went to places where an improved rail service could provide an alternative. If a lot of these flights were replaced by rail, that would free up the space at Heathrow to bring in more long-distance flights without any need to expand the airport.

The figures in the HACAN report make for startling reading

Paris	50/60 flights a day to and from Heathrow
Amsterdam**	50
Edinburgh	40
Manchester	36
Brussels	30
Glasgow	28
Newcastle	12
Leeds/Bradford	10
Rotterdam**	6
Durham/Tees Valley	6

* the figures are those of a fairly typical day but will vary throughout the year
** Amsterdam and Rotterdam have been included because the high-speed line from Brussels to Amsterdam is imminent

- This makes **Paris** Heathrow's **top destination**
- **Amsterdam** is in **joint second** place with **Dublin**
- And in **fourth** place is **New York** with **42 flights**, just ahead of **Edinburgh**



Another 100,000 or so flights a year serve the following destinations. Many of them could be 'reachable' by improved rail services.

The main ones are:

Frankfurt	40	<i>flights per day</i>
Milan	32	
Munich	28	
Aberdeen	28	
Copenhagen	26	
Rome	24	
Stockholm	24	
Zurich	24	
Madrid	22	
Belfast	20	

Contrary to what is often believed, a sizeable number of the destinations served by Heathrow are within Europe. Apart from New York, the most popular destinations are all European.

There are:

- 28 flights to **Chicago** - the same as **Aberdeen!**
- 26 flights to **Hong Kong** - less than half the number to **Paris**
- 24 flights to **Los Angeles** - less than **Glasgow**

And note: there are a total of **54,000** flights a year serving Heathrow's 'competitor' airports – **Charles de Gaulle**, **Schiphol** and **Frankfurt**.

The Heathrow Expansion Proposals

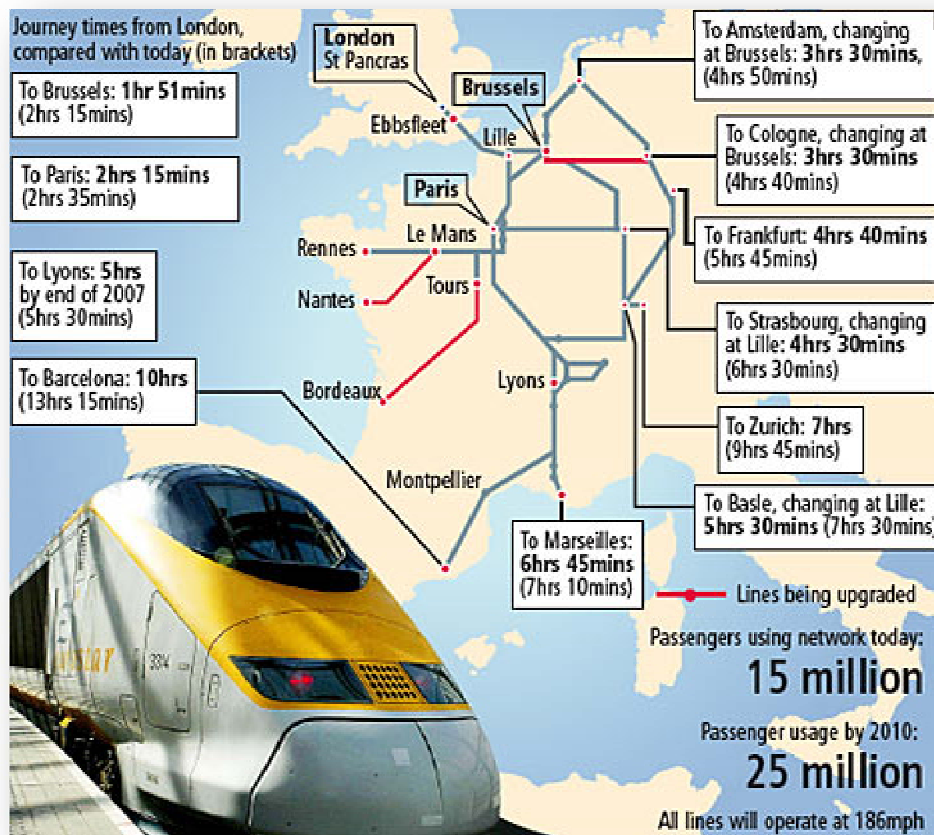
In late 2007/early 2008 the Department for Transport consulted on its proposals for Heathrow expansion. *It proposes:*

An end to runway alternation. This is the practice where planes landing over West London switch runways at 3pm in order to give residents in the boroughs closest to the airport a half day's break from the noise. Flight numbers would increase from 475,000 to at least 540,000 a year.

A 3rd runway and 6th terminal. This would require the demolition of at least 700 homes, including the entire community of Sipson, and would result in over 700,000 flights a year using the airport.

The Potential of Rail

The growth of high-speed rail on the continent of Europe has been phenomenal. An extensive network continues to expand (2). It is the UK which has been left behind.



It is this extensive network that is providing a challenge to budget flights across Europe. There will soon be a high-speed rail network stretching across seven countries in Europe which will start competing with low-cost airlines as the most convenient way to travel. The intercity network will mean people will be able to travel by train from London to Frankfurt in just five hours for as little as £69. Passengers will also be able to travel between France, Germany, the Netherlands, Belgium, Switzerland and Austria using good rail services.

And beyond London

A study carried out by WS Atkins for the Strategic Rail Authority in 2001/03, updated this year (3), developed the idea of a high-speed rail to the north with two branches at the southern end: one directly to London; and one London via Heathrow. It gave journey times of:

- London - Birmingham 40min
- London -Manchester 1hr 25min
- London – Leeds 1hr 20min
- London - Edinburgh or Glasgow 2hr 45min

The Demand for Rail

There are a number of factors which influence the mode of travel a person chooses to make the journey.

Distance

under 150km - car or traditional rail are the preferred modes;

150 - 400km - high speed rail wins out over air, but car still has around 70% of the market;

400 - 1200km - there is competition between high speed rail and air, with the fiercest competition at distances of between 400 and 800km;

over 1200km* - general preference for air (4).

Fact: 45% of air trips within Europe are 500kms or less in length.

People are switching:

- Eurostar is now capturing over 70% of the market between London and Paris; and over 60% between London and Brussels.
- The air service between Paris and Brussels has ceased since the train journey was reduced to about an hour.
- Rail held only 22% of the combined Paris-Marseille air-rail market before TGV Mediterranean went into service (2001), but in four years that market share rose to 65% and in 2006 it was 69% and EasyJet abandoned its Paris-Marseille flights.
- In the UK, since its improvement in the West Coast Mainline, rail has snatched 20% of passengers from the airlines, increasing its share of the market to 60%.

Time

Traditionally, the tipping point has been three hours, but this threshold has recently been increased to between four and four-and-a-half hours for business travel. The French railway, SNCF, has found that on journeys of less than four-and-a-half hours, where their trains compete with airlines, their share of the market is over 50%. This is backed up by other European rail companies, which are capturing more than 60% of the business market from airlines on four hour journeys.

Productive Time

But comparative figures about the time a journey takes only paint a partial picture. What is more important than the absolute journey time, particularly for business travellers, is how productively the time can be used. It is here that rail can have a big advantage. A first-rate report from TRANSform Scotland compared current air and rail services between London and Edinburgh and Glasgow (5).

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City Centre – City Centre Journey Actual Times

Rail: Glasgow – London 4hr 30min - 5hr 20min

Air: Glasgow – London (via Heathrow) 3hr 42min
(assumed average waits for connecting buses and trains and typical check-in times)

Rail: Edinburgh - London 4hr 20min – 4hr 30min

Air: Edinburgh – London (via Heathrow) 3hr 42min

Productive Working Time

Air: 1hr. Time lost 2hr 30min

Train: 4-5 hrs (depending on length of journey). Time lost: negligible

Reliability

Rail services are consistently more punctual than air.

- Between London and Scotland rail services are 21-22% more punctual than the plane;
- 91.5% of Eurostar trains between London and Paris/Brussels were on time compared with 68.8% of planes.

Cost

The cost of rail travel is often cited as a problem. And fares, especially in the UK, can be very high indeed. But the picture is complex (6). The fares quoted below should be seen as indicative.

London – Edinburgh Return Fares

Booked 24hrs in advance:

British Airways	£200
Rail	£90
easyJet	£90

Booked 2 months in advance

British Airways	£70
easyJet	£55
Rail	£25

Rome – Milan Return Fares

Booked 1 day in advance

Ryanair	275 euros
Alitalia (plane)	220 euros
Trenitalia (train)	50 euros

Booked 2 months in advance

Alitalia	220 euros
Ryanair	40 euros
Trenitalia	20 euros

Paris – Marseille Return Fares

Day Return or booked 24hrs in advance:

Air France	390 euros
SNCF (Rail)	120 euros

Weekend Return or booked 2 months in advance

SNCF	120 euros
Air France	110 euro

The Benefits of Investing in Rail

Economic

Investment in fast rail links would bring higher economic benefits than expansion at Heathrow. The WS Atkins 2006 report found that high-speed links from London, via Heathrow, to Birmingham and Leeds would cost £31bn but would bring benefits of £63bn over a 60 year period. These benefits would only accrue if the lines were city-centre to city-centre. According to the Department for Transport the current proposals to expand Heathrow would only generate economic benefits of £5bn spread over a 70 year period.

Employment

Investment in high-speed rail would be expected to create tens of thousands of jobs across the country, including new jobs at Heathrow. Jobs would be created in three areas. There would be the rail jobs in operating the new services. There would be the construction jobs in building new rail lines and also the prospect of reviving UK train manufacturing. And there would be the jobs that resulted from the stimulus that the rail investment would bring to the wider economy. It is essential that steps to reduce carbon emissions from the transport sector are part of a nationally planned and integrated strategy that involves all stakeholders. In this respect a Just Transition from sectors with high carbon emissions to more environmentally sustainable forms of transport such as rail must fully involve the trade unions in specifying and delivering the integrated transport plan.

Environmental

A fast rail service which substituted for further expansion at Heathrow would result in significant environmental benefits. For residents under the flight paths, it would mean that already unbearable noise levels would not become even worse. Air pollution levels around the airport, already amongst the highest in the UK, would probably fall. And climate change emissions would not rise so fast. High-speed rail emits between 8 and 11 times less CO₂ than air travel.

Integration

A high-speed rail network has most to offer as part of an integrated transport system, not replacing local and regional rail services, but linked to them. Integration offers the prospect of both train stations and airports becoming coordinated transport hubs. But integration will remain an unattainable goal under the UK current transport set-up: uncoordinated; deregulated; privatised. Government, in conjunction with local and regional authorities, needs to set out a long-term transport strategy, framed by what it wants transport to achieve for the country's citizens, its environment and its economy. Within such a framework, there would be no need to expand Heathrow, given rail's environmental advantages over air, and the potential of a sensibly-priced high-speed rail network to persuade enough people to switch from short-haul flights.

Investment in fast rail links would bring higher economic benefits than expansion at Heathrow: net benefits of £30bn compared with £5bn at Heathrow. It would also create many more jobs.

The Spanish Experience

The latest country to invest in high-speed rail is Spain.

A new high-speed train between Madrid and Barcelona carves its way through the Spanish countryside at speeds of nearly 220mph. The Ave S103 is the kind of train that British commuters can only dream of, and forms the centrepiece of plans to make Spain a model for the rest of Europe, and the world leader in high-speed trains by 2010. The director general of the state rail operator Renfe's high-speed service, Aberlado Carrillo, said: "These trains are the future of travel in Spain and show that the train is anything but obsolete. Trains will again be the dominant mode of transport in this country." Spain's aim is to have 10,000km (6,200 miles) of high-speed track in Spain by 2020, meaning that 90% of the population will be no more than 30 miles from a station through which the train passes. The Barcelona line is to be extended to Perpignan in France, making the Catalan capital just four-and-a-half hours from Paris. Work to join Madrid and Lisbon is under way.

Christian Wolmar, the author of a history of Britain's railways, says that the difference between Spanish and British models on investment comes from conflicting philosophies of rail's worth. He says: "We ignore the social values of trains. Just as we don't expect motorways to pay their own way, we shouldn't expect trains to. "All the recent legislation in the UK, with privatisation, franchising and the complex structures of investment, has meant that it is impossible to have a rational transport policy to maximise the use of trains for environmental and economic reasons (7)."

In its first term in office, the socialist government of José Luis Rodríguez Zapatero has spent €21bn (£15.7bn) as part of a 15-year €108bn project to transform the rail network.



So can High-Speed Rail be an Alternative to Heathrow Expansion?

The experience from Europe suggests that it can. Anywhere between a fifth and more than a third of all flights using Heathrow could be replaced by a fast, affordable, reliable rail service. It requires a change of mind-set to make it happen. Particularly on the part of government. Other governments across Europe have recognised the potential of investing in high-speed rail. The UK Government could learn much from what is happening there. The Spanish experience is particularly instructive. Spain is a larger, less densely-populated country than the UK, but there are clear lessons that could be learnt in developing a high-speed rail network.

1. Government commitment to a long-term, strategic approach, backed up by significant funding.
2. A clear recognition of the social, environmental and economic benefits that investment in rail can bring.
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Conclusion

RMT believes in a balanced transport policy with a role for all transport modes. The current proposals to expand Heathrow, however, would be unnecessary if there was serious investment in rail as part of a coordinated, integrated transport system. The experience of Europe is that this will not happen if the Government sits on the sidelines and leaves transport to market forces. It will require government to get centrally involved in developing a sustainable approach to transport. If it did so, the evidence suggests that there would be significant benefits to the wider economy, to workers in industry, to the environment and to residents under flight paths and around airports. It would be a win-win solution: an environmentally friendlier solution which at the same time boosted the economy and protected and created jobs.

References:

- (1). Short-Haul Flights: Clogging up Heathrow's Runways, published by HACAN, (2006)
- (2). Map from Daily Mail, (3/7/2007)
- (3). High Speed Rail Report, WS Atkins (2008)
- (4). Milan Janic in *Towards Sustainable Aviation*, published by Earthscan (2003)
- (5). The Railways Mean Business, TRANSform Scotland, (2007)
- (6). The Impact of High Speed Rail on Heathrow Airport, Greengauge, (2006)
- (7). Quote appeared in the Guardian (2/2/2008)

A Win-Win Solution

High-speed rail would create tens of thousands of jobs across the country, including new jobs at Heathrow. It would be a win-win solution: an environmentally friendlier option than airport expansion which at the same time boosted the economy, protected employment levels at Heathrow and created jobs across the country.

Who Says There is no Alternative? has been published by the RMT.

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