

The Wider Economy - Impact of Heathrow

Airport's expansion on the number and
distribution of UK passengers and destinations -

Supplementary Report

A Report by the

All Party Parliamentary Group on

Heathrow and the Wider Economy

16th March 2015

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Publication/website

The wider economy - impact of Heathrow Airport's expansion on the number and distribution of UK passengers and destinations - Supplementary Report, can be found online at the Group's website www.heathrowappg.com.

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A Report by the All Party Parliamentary Group on Heathrow and the Wider Economy

The Wider Economy - Impact of Heathrow Airport's expansion on the number and distribution of UK passengers and destinations - Supplementary Report

INTRODUCTION

1. A report published by the All Party Parliamentary Group on Heathrow and the Wider Economy on 3rd February 2015 examined the Airports Commission's passenger forecasts and suggested that on any reasonable assumption there would be no overall increase in the number of UK passengers, flights or destinations as a result of Heathrow's expansion. Instead, the expansion would be fed almost entirely by re-distributing growth from other UK airports and particularly regional airports.
2. The report presented here is supplementary to the original report and examines in more detail spare capacity and the impact of Heathrow expansion on individual UK airports. The report is compiled using published data in the Commission's consultation report - 'Technical-strategic fit'.
3. In the 'do minimum' option (without an additional runway at Heathrow or Gatwick) the market produces growth at other airports without requiring government intervention. Conversely, were the government to support an additional runway at Heathrow or Gatwick, the intervention distorts the market and reduces growth at other UK airports, especially in the regions. So the Government has a choice that impacts the balance between Heathrow, Gatwick and regional airports.
4. It is reasonable to expect the negative reduction in growth at regional airports from expansion at Heathrow or Gatwick to translate into a negative impact on the affected regional economies. In addition, Heathrow or Gatwick expansion would require substantial investment in runway and surface access capacity that could just as well be provided by existing or planned capacity in the regions without additional regional runways. There may be some investment required in terminals and surface access but far less than would be required by expanding Heathrow or Gatwick and the investment would be dispersed across a number of airports.
5. The Commission's Interim report and recent consultation failed to examine fully the aviation and economic regional balance and therefore has failed to recognise the absence of an overall increase in the UK aviation market as a result of Heathrow or Gatwick expansion. It was premature at the Interim stage to reduce the decision to a choice between Heathrow and Gatwick expansion.
6. From an environmental stand point, using existing or planned capacity at airports other than Heathrow is not a case of transferring the environmental impact of growth from Heathrow to these airports. Instead the reverse is the case, in that a decision to expand Heathrow would result in additional adverse environmental impact from Heathrow that would not otherwise arise. Air pollution and noise in areas around Heathrow already challenge statutory limits on air quality and World Health Organisation guidelines on noise. Expansion of Heathrow would concentrate noise and pollution that otherwise would be widely dispersed over 30 airports.
7. The Commission conducted its appraisal using five scenarios, as described in Annex 1, and two different approaches to CO₂ - one is termed carbon capped (CC) and the other carbon traded (CT), making ten scenarios in total.
8. The following table provides details of the capacity and its use in the 'do minimum' option as background to considering individual airports. This supplementary report is largely based on air traffic movements (ATMs) but similar results arise when examining passenger numbers.

Airport runway capacity and use in the 'do minimum' option (no new London runways) - '000 ATMs per year													
	Runway Capacity		Runway Use for 2011 and the ten projected scenarios										
			Actual	AON CC	GG CC	RDE CC	LCK CC	GF CC	AON CT	GG CT	RDE CT	LCK CT	GF CT
Year	2011	2050	2011	2050	2050	2050	2050	2050	2050	2050	2050	2050	2050
London airports - 5 airports	1248	1299	1006	1198	1194	1205	1184	1207	1205	1182	1184	1176	1206
Regional airports - 9 largest	1939	2346	647	1118	1001	1029	995	1151	1214	1305	1231	1293	1180
Regional airports - 17 other modelled	2057	2368	333	723	656	704	668	490	795	957	827	972	1057
Total UK ATMs '000	5244	6013	1986	3039	2851	2938	2847	2848	3214	3444	3242	3441	3443

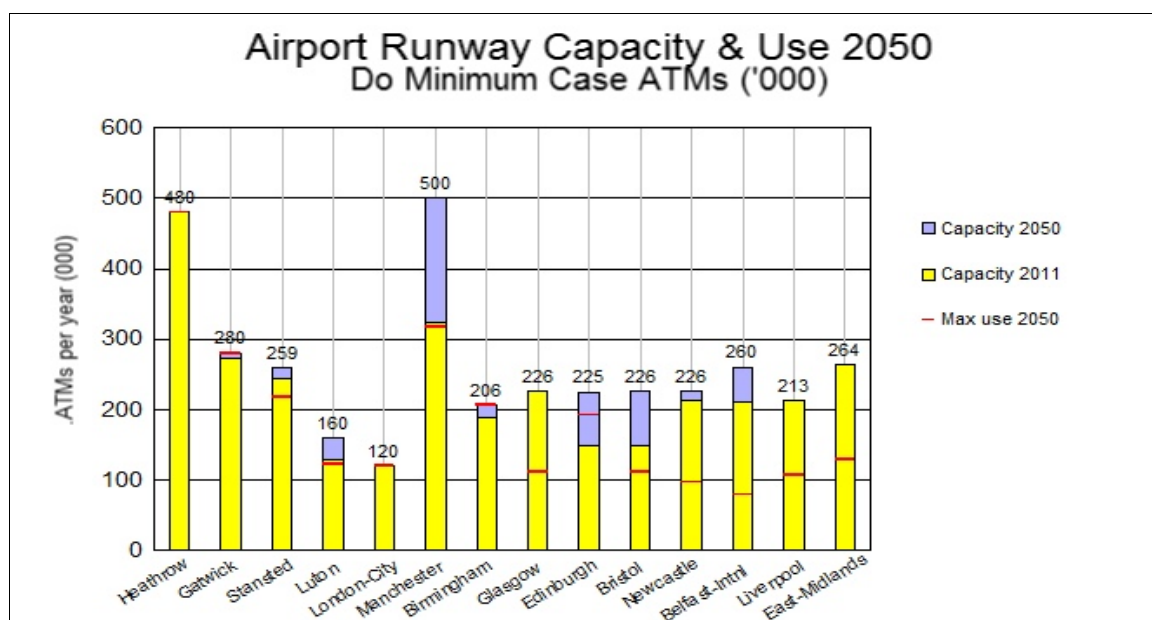
Source: Airports Commission Strategic Fit Tables

EXECUTIVE SUMMARY

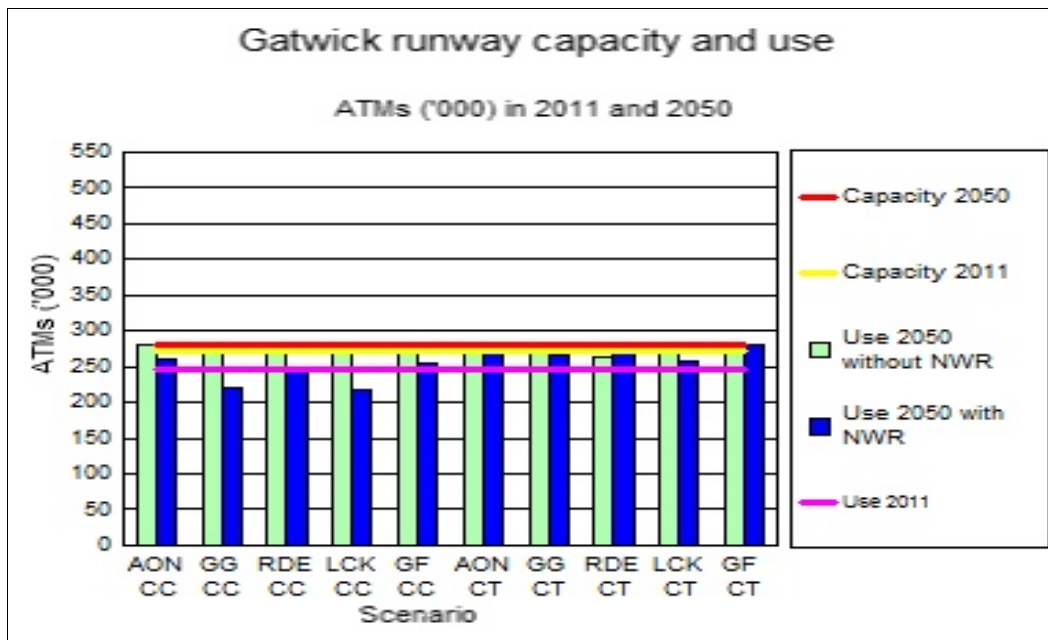
9. Aviation markets drive growth at airports around the UK without government intervention.
10. Expansion of Heathrow is fed by reducing growth at all other airports and so there is no overall incremental growth of the UK aviation market as a result (as examined in the original report and re-affirmed in this supplementary report).
11. Intervention by government to expand Heathrow and hence reduce growth at regional and other airports is likely to have a negative impact on local economies around the UK.
12. Expansion of Heathrow costs far more than using existing spare capacity at other airports. Market growth to 2050 without Heathrow expansion is shown in this report to be within individual airport existing or planned runway capacity for most UK airports and within existing UK runway capacity as a whole.
13. Expansion of Heathrow concentrates the environmental cost from noise and air pollution at a single airport instead of dispersing it across 30 airports and within the limits of their existing or already planned capacity. This report examines the dispersion of ATMs but does not examine the related noise and pollution effects and populations exposed.
14. Three airports are at capacity in 2050 without Heathrow expansion and so it is important to see whether Heathrow expansion relieves the pressure on these airports. In the case of London City, use is at capacity in 2050 and it makes no difference as to whether or not Heathrow is expanded. Gatwick is at capacity in 2050 across all scenarios without Heathrow expansion but the latter's expansion reduces Gatwick use below capacity in the carbon capped scenarios and opens up as much as 20% spare capacity or 7.5% spare capacity on average across all scenarios. Birmingham is at capacity in 2050 in some scenarios without Heathrow expansion. While Heathrow expansion may relieve the pressure at Birmingham in these scenarios it goes much further and reduces use by as much as 45% or around 25% on average across all scenarios resulting in use well below capacity. On balance it seems reasonable to conclude that while possibly relieving some pressure at Gatwick and Birmingham, Heathrow expansion is more likely to transfer runway use from these two airports to Heathrow, which in turn creates underutilisation of capacity at these airports.

CAPACITY

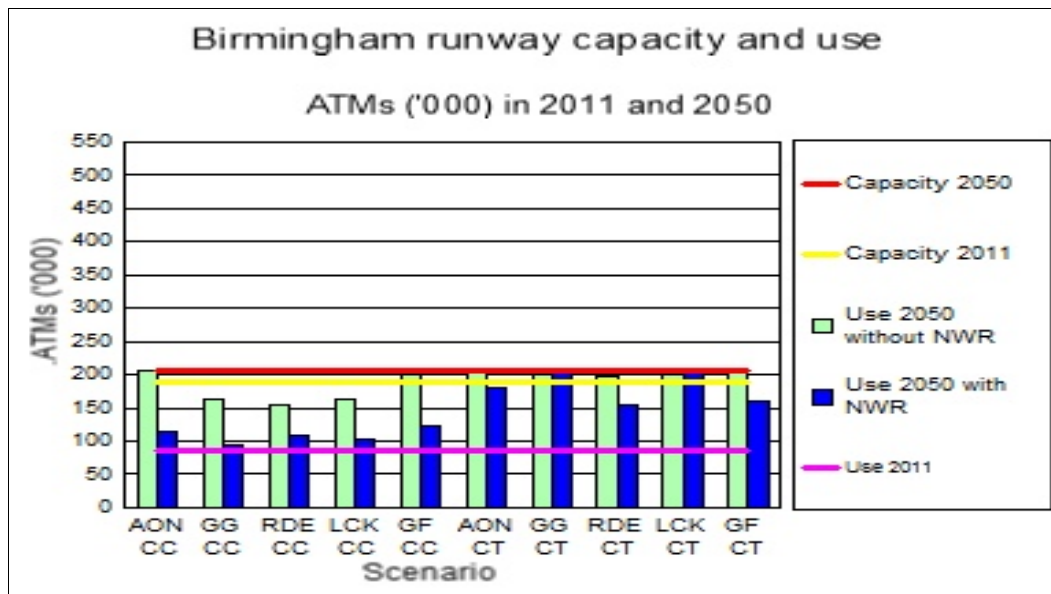
15. The following chart depicts runway capacity and maximum use in terms of ATMs in the ‘do minimum’ option (i.e. no expansion at Heathrow or Gatwick). The yellow columns show the runway capacity in 2011 to which is added further capacity by 2050 at some airports and this is shown in light blue. The chart shows the capacity of the five London airports and nine largest regional airports. It also shows with red lines the maximum use in 2050 taken from the range of ten scenarios examined by the Commission.
16. It can be seen from the chart that in the ‘do minimum’ option maximum runway use reaches capacity in 2050 at Heathrow, Gatwick, London City and Birmingham but there is substantial spare capacity at other airports. Although incremental runway capacity is added at nine airports, only Gatwick, Birmingham and Edinburgh seemingly make use of this additional capacity. The capacity does not involve additional runways.



17. In the case of Heathrow, while the number of flights is at the legal limit of 480,000 ATMs per year, passenger numbers are planned to increase by around 30% using larger planes and higher load factors (72 mppa today rising to 95 mppa). Also, as discussed in the original APPG report, international transfers (representing around 30% of demand) do not generally add economic value and could be reduced to free up capacity.
18. At Gatwick there is scope to increase the number of passengers in the ‘do minimum case, after the number of flights reaches runway capacity by using larger planes. The alternative option of expanding Heathrow has a negative impact on Gatwick in some scenarios, as shown by comparing the green and blue columns in the following chart.



19. At Birmingham the following chart shows that in the 'do minimum' option the number of ATMs reach runway capacity in some scenarios but not all. But the alternative option of expanding Heathrow has a particularly negative impact on the number of ATMs at Birmingham, as shown by comparing the green and blue columns in the chart.



20. London City is at or close to capacity in 2050 irrespective of whether or not Heathrow is expanded, as is shown by the chart in Annex 4.
21. The Commission modelled another 17 regional airports (listed in Annex 7) but only detailed capacity and not usage by individual airport. But, as can be seen from the table in the Introduction, the overall use is a small fraction of the capacity at these airports; so while not ruling out potential capacity constraints at one or more of these smaller airports, the overall UK impact of such constraints is likely to be insignificant.

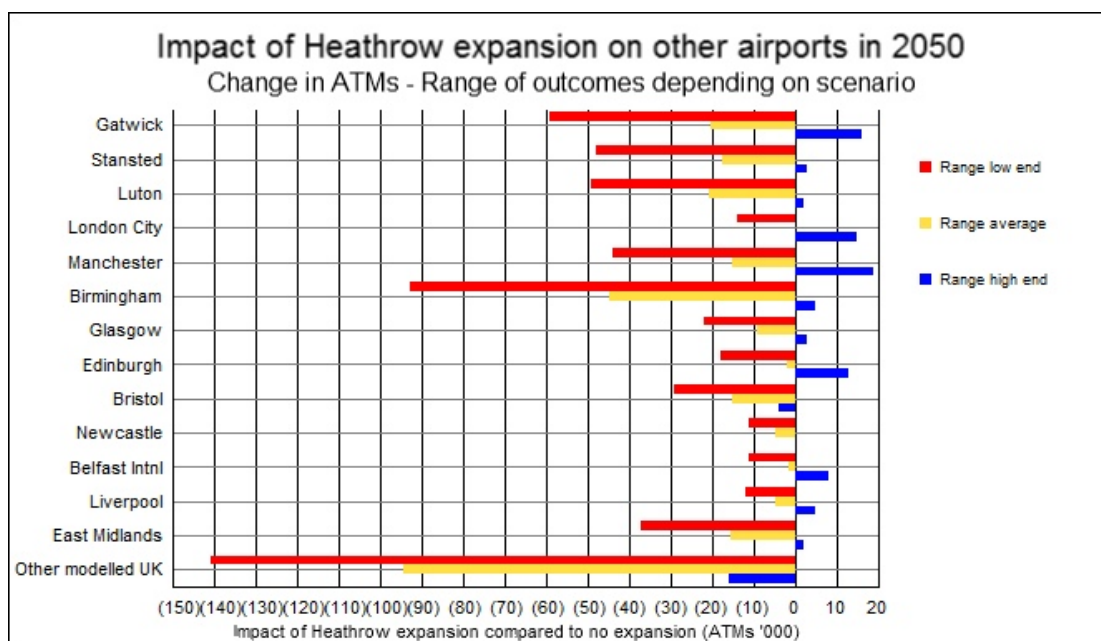
22. The original APPG Report concluded that adding capacity at either Heathrow or Gatwick does not facilitate an increase in the overall UK aviation market. But the alternative option of not expanding these two airports does not reduce the overall UK aviation market. As pointed out above, not to expand these two airports could result in both of them and possibly Birmingham reaching capacity by 2050. However, this possible constraint needs to be balanced against the reduction in growth at other airports should Heathrow or Gatwick be expanded. This is examined in the case of Heathrow in the following section.

IMPACT OF HEATHROW EXPANSION ON INDIVIDUAL AIRPORTS

23. The original APPG Report reviewed the impact of Heathrow expansion on Gatwick, on the other three London airports in aggregate and on the regional airports in aggregate. This supplementary report goes into greater detail and examines the impact on each of the main UK airports.

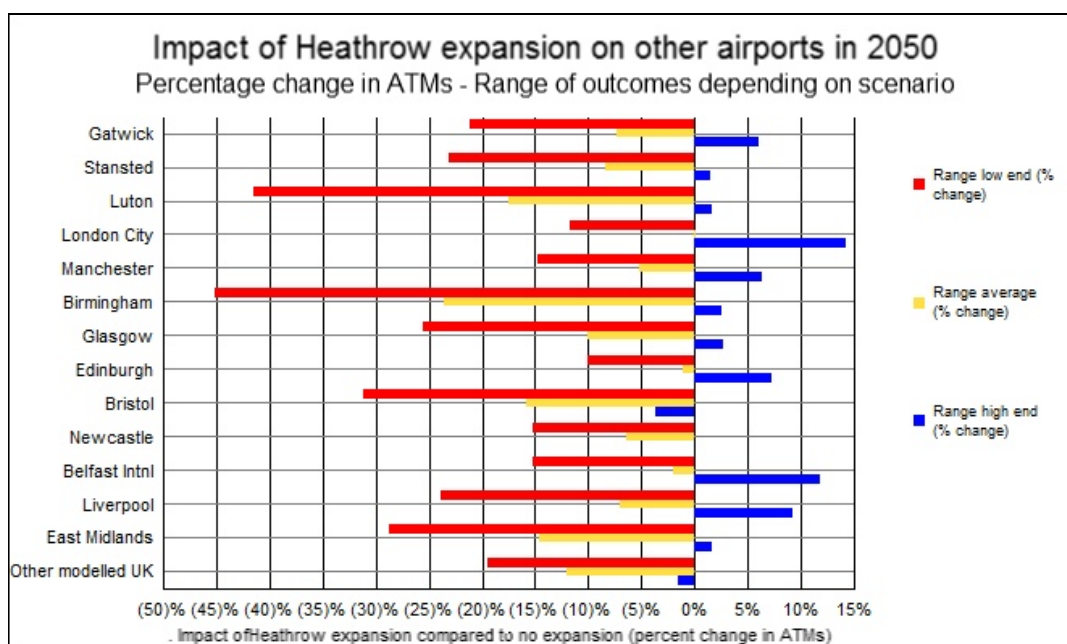
24. The following chart shows the range of outcomes in 2050 for the ten scenarios - comparing the ‘do minimum option with Heathrow expansion option. This chart is prepared from Annex 3 which shows the increment between the two options and Annex 3 is calculated from Annex 2 that provides detailed ATMs for each airport for the two options.

25. The low end (red column) of each range and the high end (blue column) and average (yellow column) are shown for each airport. For example, the impact on Birmingham growth in 2050 ranges between minus 93,000 ATMs per year and plus 5,000 ATMs, depending on scenario; on average across all ten scenarios growth is reduced by 45,000 ATMs. Birmingham has the largest reduction in growth and the largest range of outcomes, which is indicative of the uncertainty and risk to its growth. This is followed by Gatwick, Stansted and Luton. All the airports experience a reduction in growth on average across all ten scenarios as a result of Heathrow expansion, as is shown by the yellow columns.



26. The percentage changes for each airport in 2050, assuming Heathrow expansion, are shown by the following chart prepared from Annex 3. For example, the impact on Birmingham’s ATM

growth ranges between minus 45% and plus 2% depending on scenario and on average across all ten scenarios growth is reduced by around 25%. It can be seen that Birmingham, Luton, Bristol and East Midlands experience relatively high percentage reductions in growth as a result of Heathrow expansion.



27. Annex 4 shows charts of capacity and use for all five London airports and Annex 5 shows charts for the nine main regional airports. Annex 6 shows summary charts separately for London, the regions and the UK.
28. It can be seen from the two charts above that the expansion of Heathrow has negative impact on all other airports by reducing their growth. The airports Commission has itself pointed out that fixed costs represent around 80% of operating costs of an airport. So reducing the number of flights by very large percentages by deciding to expand Heathrow (as much as 45% at Birmingham and 41% at Luton across all scenarios) is likely to have a large negative financial impact on these other airports.
29. Sufficient evidence has not been identified in the Commission's consultation to determine why some airports experience greater negative impact than others. But tentatively it seems that the airports potentially sharing Heathrow's catchment area are most at risk, e.g. Birmingham, Luton and East Midlands. Bristol also seems vulnerable. On the other hand, Stansted and Gatwick appear to be less vulnerable to reduced growth.
30. The overall conclusion is that a decision not to expand Heathrow may result in Heathrow, Gatwick and possibly Birmingham experiencing ATM demand at or near capacity. But the cost of this constraint is likely to be more than offset by considerable benefit from allowing other airports to realise their market potential and without the huge cost of expanding Heathrow and potentially a very large cost to the public purse of financing its expansion. Also, a decision not to expand Heathrow or Gatwick would disperse economic benefits and environmental costs across the UK in a more equitable way than if growth were to be concentrated at either one or other of these two airports.

End