

A response from the Royal Aeronautical Society to the Airports Commission consultation on the short-listed options for a new runway in London and the South East

The Royal Aeronautical Society is the learned society for the aerospace and aviation community. It has approximately 20,000 members world-wide and its activities are supported by a number of Specialist Groups, including an Air Transport Specialist Group which comprises the widest range of representation across the air transport community.

Assessment Methodology

The Airports Commission has undertaken a detailed appraisal of all three short-listed options in line with its previously published evaluation criteria.

The RAeS believes that this appraisal is both comprehensive and robust (with some exceptions as noted below). We are slightly concerned that there is little direct comparative analysis of the three options, although impacts are measured on a similar basis and that there are no summary comparison tables. This does make the appraisal reports difficult to interpretate and may perhaps deter some consultees and other interested parties who are perhaps less familiar with the issues and the report structures.

It should also be noted that, whilst the appraisal is structured in terms of a separate business case and sustainability appraisal for each option, these will ultimately need to be linked when the Airports Commission weighs up all issues for each option before making its final recommendation(s).

Strategic Fit

All three short-listed options meet the strategic fit requirements defined by the Airports Commission, including the additional capacity required to meet the central traffic forecasts ('Assessment of Need') by 2050.

With a second runway, Gatwick's throughput would rise to 60-96 mppa by 2050 dependent on the forecasting scenario. The highest figure is achieved under a 'Low Cost is King' scenario. This also gives the greater increase in traffic to emerging markets. Whilst we acknowledge that the forecasting scenarios are illustrative only – we do not believe that substantial growth in low cost, particularly in long-haul is realistic. Although Norwegian does currently offer low cost flights to the US from Gatwick, this is largely experimental and there is no historical precedent for sustained low cost long haul operations either in the UK or elsewhere in the world.

Forecasted traffic under the Heathrow North West Runway and Extended Northern runway options are, not surprisingly, very similar (132-149 mppa and 126-142 mppa by 2050 respectively). The two Heathrow options facilitate a larger traffic increase than the Gatwick option – albeit with a greater number of transfer passengers. The Heathrow options also give the greatest potential for hub operations, although the extent to which new routes to emerging markets will develop does depend on the forecasting scenario. It should also be noted that the UK's main hub carrier, IAG, will undoubtedly benefit most from a Heathrow option (with consequent benefits to the UK economy and airline industry), although it is recognised that the extent to which passengers will also benefit will depend on the extent of airline competition.

Economic Benefits

The economic benefits derived from a new runway include transport economic efficiency benefits (eg reduced passenger travel time), reduced flight delays and increased Gross Domestic Product (GDP) both locally and within the UK as a whole). There will also be increased employment locally and to a lesser extent across the UK as a whole, which itself will be a major contributor to the increase in GDP.

The Gatwick option will generate between £3.7-44.1 billion in transport efficiency benefits dependent on the forecasting scenario and a further £0.73-1.78 billion from reduced flight delays. The expected benefits from increased GDP amount to between £42-127 billion.

The Heathrow Extended Northern Runway option provides between £9.4 – 36.7 billion in transport economic efficiency benefits, £0.64-2.18 billion in reduced flight delays and between £101-214 billion in increased GDP.

Slightly higher figures are obtained for the Heathrow North West Runway (£10.3-42 billion in transport efficiency savings, £0.84 -2.36 billion in reduced flight delays and £112-211 billion in increased GDP).

There appears to be relatively little difference between the Gatwick and the Heathrow options in terms of the economic benefits from reduced flight delays. We find this surprising given the current (and potential) number of delays at Heathrow (a two runway airport) and average delay times.

We note that one of the key issues within the appraisal as a whole, which has been highlighted by the promoters themselves, is the extent to which the UK will benefit from increased GDP as a result of a new runway. Given the scale of these benefits (eg in comparison to the other economic benefits) and to the differences between the options, this is likely to be a key consideration in the Commission's final recommendation(s). As the Commission acknowledges, the modelling methodology used to derive these figures is 'innovative' and the results must be treated with

caution. In these circumstances, we believe it would be appropriate for the Commission to undertake some further analysis on this, perhaps using an alternative methodology, to verify these results.

Cost and Financial Deliverability

The two Heathrow options have a higher cost (the Extended Northern Runway option- £13.5 billion and the North West Runway option – £18.6 billion) than the Gatwick option (£9.3 billion). As such, the necessary increases in airport charges would be higher. We doubt whether the prefinancing of any scheme by the airlines would be feasible – particularly at Gatwick, given its strong proportion of low cost and charter traffic. It is unclear as to whether economic regulation would be required eg to set charges – particularly if long-term agreements cannot be obtained with the airlines. We believe that the Commission, in conjunction with the CAA, needs to undertake further assessment of this.

Catchment Area and Surface Access

Geographically Heathrow is better located to serve a wider catchment area than Gatwick – particularly to the Midlands and the North. This would be enhanced by a link to HS2 via Old Oak Common. Gatwick has poor road access into central London – but sufficient rail capacity with the addition of new Thameslink services.

We agree with the Commission that it is appropriate to exclude the concept of a rail hub interchange (Heathrow Hub) on the Great Western Mainline to the north of the airport at this stage of the appraisal. In practice, the Commission's own analysis conducted by Jacobs suggests that the traffic demand for this hub would be low and that it would not be financially viable. We would concur with this conclusion.

We note that the Commission has not undertaken any detailed analysis on the average surface access journey times for each option, both for existing passengers (who will benefit from new surface access improvements) or for new passengers generated by the additional runway.

Impact on UK Regions

All of the options would have some impact on the UK regions both in terms of their connectivity and the potential increase in GDP (which may have a differential impact in each part of the UK). Some passengers, particularly those based in the West of England, the Midlands and the North, will benefit from the new capacity available from an additional runway and the consequent reduction in journey times from new surface access improvements. We suspect that these regional benefits are likely to be greater with a Heathrow rather than a Gatwick option.

Air Freight

A new London runway would provide substantial benefits to the air freight industry – with consequent impacts on the UK economy as a whole. There is little doubt that the benefits would be greater with a new runway at Heathrow rather than at Gatwick. As the Commission points out, the bulk of air freight is carried bellyhold on long haul flights, a greater number of which are generated under a Heathrow option. Furthermore there is significantly more existing infrastructure (eg cargo operators, freight forwarders etc) at Heathrow rather than at Gatwick.

Operational Aspects

All the options are presented as being operationally feasible, particularly in terms of airspace issues. The airspace impacts of each option will however be very different and it is perhaps disappointing that NATS has not provided any supplementary analysis, even as an overview, to accompany the appraisal.

We also note that the Commission has not, in association with the CAA or NATS, provided any firm assurance as to whether the proposed innovative use of the extended Northern Runway at Heathrow would meet the necessary safety standards required by the relevant authorities. We recognise that further work needs to be undertaken on this – although the absence of any assessment of this, even on a preliminary basis, is rather concerning.

Airline Views

The views of the airline community need to be a key consideration in the Commission's final recommendation(s). The UK's main hub airline, IAG is publically in favour of a Heathrow option – whilst Easyjet, the largest airline at Gatwick has stated that passengers would prefer expansion at Heathrow rather than at Gatwick and is concerned about a possible rise in airport charges at Gatwick if this option is selected.

IATA, the worldwide airline industry trade association, has also stated it would prefer a Heathrow rather than a Gatwick option. The views of BARS (Board of Airline Representatives) UK are unknown at this stage although it has indicated that no advance financing is inflicted on existing passengers and that all new airport infrastructure must be paid for by those who use it.

Noise

There are substantial differences in the noise impacts under the Heathrow options in comparison to those under a Gatwick option. At Heathrow, over 600,000 people are currently exposed to noise levels of 55 Leq (16 hour) or more during an average Summer day. In the case of the North West Runway option, this is expected to reduce under all traffic forecasting scenarios as new noise reduction technologies and procedures

are introduced – although some new populations will be introduced to noise exposure for the first time. Under the Northern Extended Runway option, the noise levels would appear to be higher – despite the fact that the use of the extended runway would in principle shift the noise contour to the West, which is less densely populated.

We are concerned about these discrepancies which would appear to be due to the greater use of noise mitigation measures (eg continuous descent approaches etc) in the North West rather than the Northern Extended Runway option – and we believe that this analysis should be re-run to present a ‘level playing field’. Irrespective of this, the Northern Extended Runway option does not expose any new populations to aircraft noise and it would provide greater opportunities for periods of noise relief.

In the case of a Gatwick option, the noise impact is significantly less with a maximum of just over 35,000 people exposed to noise levels of 55 L_{eq} (16 hour) or more during an average Summer day under a ‘worst case’ traffic scenario. Most of these, however, would experience aircraft noise for the first time - often in areas of previously tranquil countryside.

Air Quality

It is recognised that EU and national air quality limits could potentially be breached under both of the Heathrow options. Much of this is however derived from local road traffic rather than by, or as a result of, the airport. Further work is needed on these impacts and, if ultimately required, it may be possible to introduced differential road pricing on the M25 and or other access roads to the airport.

Carbon Emissions

In line with the greater traffic increase and the average size of aircraft used, the expected carbon emissions under the two Heathrow options are higher than those under a Gatwick option. It is possible, however, that the net effect would in practice be broadly neutral as some passengers who might otherwise use Heathrow would use other European hubs instead.

Housing Loss and Community Aspects

The Heathrow North West option would require greatest housing loss and land take (783 residential properties) in comparison to the Northern Extended runway option (242 properties) and the Gatwick option (168 properties). In the case of the Heathrow North West option, it should be pointed out that many of these properties are currently vacant after purchase by the promoter, Heathrow Airport Limited (HAL) and that the remainder would be subject to a blight compensation scheme at 25% above market rates.

Conclusions

We fully concur with the Commission's findings that there is a clear need for at least one new additional runway in London and the South East by 2030 and we endorse the short-listing of the three options presented in the Consultation document.

To meet this timetable it is important that decisions are taken promptly – starting with the Commission's recommendation for at least one runway – which is scheduled to be announced in Summer 2015.

The decision must be based by balancing the benefits to passengers and the UK economy as a whole against the environmental disbenefits. The two Heathrow options clearly have the greater economic benefits, particularly in terms of the UK economy as a whole, although they have the greatest aircraft noise impacts (or loss of an expected reduction in noise due to improved aircraft technologies and mitigation procedures. Gatwick has the advantage of being the cheapest option although there are doubts about its financial deliverability due to its current airline structure.

As indicated above, we believe that further work is required in some areas (eg a rerun of the noise analysis for the two Heathrow options and some validation of the expected GDP benefits) and it is hoped that consultees will be given an opportunity to comment on these before the Commission makes its final recommendation.