london
luton airport

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We propose that Britain should build a new four runway hub airport at Luton for the following reasons:

1. Luton is in the best location to serve the population of the UK. An estuary airport might be a good solution for London but an airport north of London is best for Britain. Stansted is too isolated from the rest of the UK.

2. We believe the airport should be located utilising existing infrastructure rather than needing extensive new infrastructure provision. The new Luton Terminals would be fed directly by Thameslink and by a light rail spur linking the West Coast Mainline at Tring (10 minutes) and the East Coast Mainline at Stevenage (7 minutes). The M1 and the A1 feed directly into Luton. High Speed 2 will remove capacity from the West Coast Mainline allowing it to serve the airport better.

3. There are less than 50,000 people exposed to noise exceeding 55 dB compared to over 700,000 at Heathrow.

4. There is sufficient space and reasonably flat low grade agricultural land available. The costs estimated at £25 billion are much lower than other options, which reek an additional £15 - £28 billion of new infrastructure.

5. It is clear from an examination of the figures of passengers using Heathrow as a hub, that a substantial number of planes could be taken out of the sky by better high speed links with Manchester, Newcastle and Edinburgh. Similarly, as airports such as Hyderabad and Bangalore grow, they will use the UK less as a hub and fly directly to their final destinations although they will continue to be replaced by other emerging cities. There are such significant differences and anomalies in forecasts which make the proposals for the estuary and Stansted to be a gamble at this stage because of their high additional infrastructure costs estimated at an additional 20 Billion.

6. Luton is a good environmental option with less loss of houses, environmentally sensitive land and habitats than other options. There is a small international one runway airport already there so this has an advantage over other locations we have considered such as Milton Keynes and sites around Birmingham.

7. Luton is at the centre of the largest growth area as forecast by the office of the Deputy Prime Minister. Heathrow is at the edge of a smaller growth area as is the estuary. An airport at Luton would stimulate growth in Watford, Luton, Milton Keynes, Peterborough and the surrounding areas.

8. Although the current owners of the existing Airport at Luton are not supportive of a new four runway hub, there has been great interest shown by companies who are interested in buying the existing airport. The existing owners are currently formulating a sale strategy and a change of ownership will bring new ambition.

9. We believe British Airways would be supportive of a new four runway hub at Luton which would allow Heathrow to operate as a point to point airport. The 1972 Ruskil commission recommended that a new airport be sited at Culbington near to Luton. We believe that locations in this area should be reconsidered.

10. The project can be phased and allows flexibility. Heathrow does not need to close. It and other existing airports can continue to provide high intensity point to point routes for both business and leisure. There would be greater competition and better options for travellers. This flexibility is essential to ensure the accuracy of the forecast passenger numbers which assume a massive growth.

If it is not to be Luton as the UK major hub airport, the next best location would be Birmingham. This would take advantage of the proposed High Speed Line to London. This would enable Heathrow, Luton, Gatwick and Stansted to provide point to point air travel with the majority of hub traffic operating through Birmingham.
This distorted population map of the UK shows Luton in the centre. Why not put the airport where people can access it with existing infrastructure, rather than the Estuary in the middle of nowhere?
Heathrow Airport Ltd published an informative document “One hub or none - the case for a single UK hub airport” in November 2012. This sets out a convincing case for a single hub airport for the South East. It contains sections entitled “Trade matters to economic recovery” and “There is a correlation between direct flight and trade”. The document admits that this is not an exact science.

*Of course, trade between two countries does not take place just because there is a direct flight service between them. It is difficult to estimate the impact of flight connectivity on trade. Which comes first? Does more connectivity lead to more trade; or does more trade lead to increased connectivity? The answer is probably a bit of both. What is certainly true is that the more flights a country has with emerging markets the more business opportunities are generated or strengthened.

The new London Luton hub airport would be 10 minutes from the West Coast Mainline from Euston, and 7 minutes from the East Coast Mainline from St Pancras. Thameslink would run directly in to the new West terminal. All three railways have had substantial investment in the last few years and all provide a good service. Locating Londons hub airport at Luton would save the UK economy £20 billion in infrastructure investment.

Heathrow

Birmingham

Derby

Leicester

Bedford

Sheffield

Manchester

Liverpool

Peterborough

Preston

York

Newcastle

Edinburgh

Glasgow

Leeds

Thames Estuary

Ashford

Thames Link Services to Mainland Europe

West Coast Mainline

East Coast Mainline

Possible Crossrail

M1 and A1 road links
Despite this there is a further paragraph explaining that:

“A lack of direct connection could already be costing the UK up to £14 billion a year. This figure could rise to up to £26 billion a year in lost trade by 2030.”

There are massive assumptions in all of these figures but most commentators are in agreement that the south of England needs a four runway hub airport but there is no consensus as to where it should be. Luton is the most attractive and economic option. Any new airport to the east would cost an additional £20 billion in transport infrastructure compared to Luton which already benefits from good links that can be improved at a low cost. Similarly, Stansted is not well served by good transport links at present and will need up to £15 billion infrastructure investment if it is to become a World Class airport facility. Luton however is close to the East Coast Mainline at Stevenage, the West Coast Mainline at Tring, and Thameslink would run in to the heart of the new airport. A light rail system would link all of these facilities for a cost of £600 million.

If the UK government could remove aeroplanes from London without damaging the economy would this be an interesting proposition? If BA decided to move all or most hub activity to Madrid and this did not affect our economic prospects, would that be a good solution? Is the effect of a hub airport overestimated in economic benefits versus environmental damage and costs?

HS2 will remove capacity for the West Coast mainline to enable it to meet provision for the new London hub airport at Luton. A light rail link will connect Tring and Stevenage directly through all 5 terminals at the airport in addition Crossrail 1 and Crossrail 2 could link directly to Luton allowing passengers of Luton airport much more variety and choice in the final London destination without needing to change trains.
Over 60% of passengers arrive at Heathrow by road and this pattern is likely to continue. Building new roads to an Estuary airport would be expensive. Luton is already well served via the M1 and A1.
Perhaps the most compelling argument for an estuary airport is the additional benefit of regeneration of the East of London. London is forecast to expand from 8 million to 10 million inhabitants over the next 30 years and where these additional people are housed is an important decision. The success of the 2012 Olympic Games has focused attention on the East of London and the regeneration possibilities. Whilst this is laudable there are other probably equally worthy possibilities. Indeed the Mayor’s London Plan shows expansion in four locations. The Thames Gateway, the Western Wedge, the Stansted - Cambridge - Peterborough corridor and the Luton - Bedford corridor.

At present the Mayor’s thinking is focused too strongly on the East of London. Our view is that the focus should shift to the north of London and consider the UK as a whole. This would be more consistent with Her Majesty’s Government policies.

There are four major growth areas planned for London. Luton is to the south of the planned growth of Milton Keynes and South Midlands and is strategically placed to respond to the growth in London’s population.
This map analyses where people fly from London’s airports. 45.7% are from greater London and 20.4% from outside the south east. Luton is the most easily accessible location for 70% of the current passengers. Also of interest in the analysis of which of the 4 London airports are used by each region. There is a clear correlation between the population and the airport nearest to them.
This diagram shows Gross Disposable Income split regionally. Luton has good links with 80% of these regions. Stansted has good links with 40%. The Estuary has good links with 20%.

It is clear that the views of Kasarda have had a large influence on the team at the GLA. The book ‘Aerotropolis’ has an impressive argument but it is not without flaws. The book supports the idea that airports attract growth wherever they are cited. This is a simple case of demand and there are many examples which show the effect of London and Manchester airports and elsewhere.

The Greater London Authority is seemingly convinced that a hub airport to the east of London will help the impetus to house an additional 2 million Londoners over the next 20 years. What might be best for London might not be best for the UK and it would be beneficial to examine the effects of a hub airport to the north of London and expanding the towns of Watford, Luton and Milton Keynes and elsewhere.

Comparative Output Contribution

- Wales: 3.5%
- Scotland: 8%
- N Ireland: 3%
- North East: 4%
- North West: 10%
- North Yorks & Humber: 7%
- Midlands: 14%
- East of England: 10%
- London: 16%
- South East: 15%
- South West: 15%

Regional Gross Disposable Income 2010

- London: 21.1%
- South East: 14.4%
- South West: 7.6%
- Midlands: 20.2%
- North Yorks & Humber: 6.9%
- Wales: 3.2%
- Scotland: 8.1%
- N Ireland: 3.2%
- North East: 3.2%
- North West: 9.3%
climate change impact

There are specific environmental advantages of locating London’s hub airport at Luton in reducing journey times from the North of England and by choosing a location which will be more accessible. 20% of air journeys from London’s airports are from passengers going to or from the North of England. The increased journey time for them and also for goods to Heathrow, Stansted and the Estuary would constitute significantly to climate change. Luton is easily accessible from Greater London which accounts for 46% of passengers using London’s Airports.

Almost 40% of Heathrow passengers are connecting to another flight compared to 10% at Gatwick. There is no hub activity at other London airports. There is a clear preference in the aviation industry for one hub airport in London. We propose that it is in Luton and that Stansted close, and Heathrow, Gatwick and City become point to point airports. As Manchester and Birmingham continue to grow, there will be hub activity there also.
80% of passengers flying to Heathrow from Manchester are connecting to other flights. The next highest proportion are for emerging economies and cities where the UK have historic links - Hyderabad, Yerevan, Dar es Salaam and Bangalore.

As their economies grow and their airports expand, there is the likelihood that they will fly more point to point destinations and the hub traffic will decrease.

It is often suggested that London is falling behind the rest of the world in terms of airport capacity and provision. We are however way out in front. This is however spread over 5 airports, one of which (Heathrow has no spare capacity. We need to ensure we continue at the top of the list and there are options as to how this is achieved. We suggest that Luton becomes London’s hub airport, Stansted closes and Heathrow, City and Gatwick become point to point airports.
It is estimated that 290 million passengers will fly from London Airports in 2050. If 80% of journeys are by car and 20% of those cars are travelling 75 miles further than they need to by driving past Luton there would be 75 million more gallons of petrol or diesel on car journeys per annum.

Where the location of Luton really scores high in climate change terms is the following. 80% of all passengers from Manchester, Newcastle and Edinburgh are using London airports as a hub. If they were encouraged to use rail as an alternative to flying it will take these flights from the sky.

A hub in the estuary is unlikely to discourage these same passengers from flying but an airport easily accessible for by rail will.

The forecasts for air traffic growth are staggering. A future UK government could adopt policies which encourage more environmentally responsible forms of transport such as rail wherever possible. This would affect the number of flights to UK cities and European destinations.

The dots here represent the current biggest airports in the world. The red dots emphasise how many of those have entered this top 20 in the last few years. Over the next 20 years these dots will include several in India and the Middle East.
It is a common preconception that the area around Luton Airport is too topographically challenging to develop. This is probably due to the 50m incline on the existing approach road to the airport. Once at the airport level however, the terrain is surprisingly flat. The ground does fall away towards Luton Hoo and the Capability Green Business Park, but there is enough space for a four runway hub airport on reasonably level ground.
Aerial view of Luton 2013
The site of the new Luton Hub Airport looking towards the existing control tower and single runway.

There would be some loss of farms, dwellings and other buildings. The surrounding land is mainly agricultural with some woodland. Some listed buildings will need to be demolished at Breakwood Green, Peter’s Green and Arseels End Farm. Although this would be a loss, the environmental disruption would be minimal compared to a new estuary airport. The airport fits between Kimpton to the south and Luton to the north. Our estimate of the number of people affected by noise above 55dB is less than 50,000. For comparison, Heathrow currently affects 700,000.

Number of people exposed to noise exceeding 55dB

- Madrid
- Amsterdam Schiphol
- Paris CDG
- Frankfurt
- London Heathrow
- Luton

700,000 people are affected by high noise levels at Heathrow. We forecast 50,000 at Luton.
This is where Luton scores extremely well compared to all competing locations. A new hub airport at Luton would be well served by public transport. By bus and coach via the M1 and A1 and by the East Coast Mainline, the West Coast Mainline and by Thameslink. Those important links are available also to support those who will work at the airport and the businesses located nearby.

It is estimated that a new hub airport at Luton would employ over 150,000 people directly with another 200,000 in associated employment. These could be located in Luton, Stevenage or as far away as Milton Keynes, Watford or other town expansion areas.

The great opportunity for a new hub airport at Luton is to fit into existing infrastructure improvements. Exciting transport links already exist and can be improved. Similarly schools, hospitals, water and waste disposal facilities can be adapted to meet the new demand without exorbitant expense.

A real opportunity exists to consider Luton as the gateway to the north. Luton is an obvious location for London’s hub airport to provide specific social and economic impacts for the north of England. We envisage that 45% of airport passengers would travel to the airport by car and 55% by public transport. Luton is well served by the M1 and the A1 from the south and also the north of England.

This shows the new layout superimposed onto the existing landscape. Ancillary facilities such as hotels will be incorporated into the wider context.
We propose a new dedicated light rail link from Tring station on the West Coast Mainline running directly to both new airport terminals and each of the 5 satellites. A similar light rail link will run from Stevenage Station on the East Coast Mainline. At Tring and Stevenage we will provide check-in desks and luggage drop facilities so that passengers can relax unencumbered by luggage as they board the dedicated rail links. The Thameslink service would be diverted to run directly into the new West Terminal.
feasibility considerations

The 2012 report by Tim Leunig for the Policy Exchange says:

“If for any reason Heathrow cannot be expanded, the next best location is near to the current Luton airport. This airport is on the right side of London for the rest of the country, and can easily be linked with high quality connections to London, the M1, the West Coast Mainline and the East Coast Mainline. There are disadvantages: the site is relatively hilly, and Stansted would have to close. In addition, business individuals that have located near Heathrow for access to the airport would need to relocate. For those reasons Luton is second best, but deserves to be considered.

There is no rationale for trying to make either Stansted or Gatwick into Britain’s major hub. Both should be treated as commercial airports, whose primary function is to service point to point leisure traffic. They may grow or decline, according to the commercial acumen of those who operate them. There is no need for Britain to accept second best. We can build an effective and cost-efficient hub that works for passengers, airlines and people who live in and around.

The reality is that the estuary airport is in the wrong place, and as a result is slow and expensive to get to: it just doesn’t work for business travellers. Foster’s are proud of their vision, and cite the Victorians as inspiration. Foster himself writes in his foreword that “We need to recapture the foresight and political courage of our 19th century forebears if we are to establish a modern transport and energy infrastructure in Britain for this century and beyond.” Yet he has got the Victorians flat wrong. The Victorians did not come up with grand visions.

The Victorians love of competition over planning and foresight gave us competing rail lines run by competing companies, who built a veritable spaghetti system of rail lines. Brunel, a man of vision and many achievements for sure, built his railway to a different gauge to the rest of the country, while neither his vacuum railway nor the Great Eastern succeeded. Vision can lead to mistakes as well as success.

The reality is that the Foster proposal is an engineering and architecture led solution to a problem that is human. Airports are not about fancy buildings or high speed train lines to a handful of places. They are much more prosaic. They are about getting people from A to B quickly, while limiting disturbance to others. Nothing more and nothing less. The plans for an airport at Cliffe - like Maplin, Whitstable and other estuary plans - fail on this criterion.”

Similarly Stansted fails because it is also in the wrong location for the majority of the UK to access. It is unacceptable in any terms of environmental criteria to enlarge Heathrow. Luton however has a number of overwhelming advantages and deserves further consideration.

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The new four runway hub airport is located between Luton and Kimpton to the south. The new airport would impact on the following villages.

New Mill End
- Small hamlet consisting of predominantly agricultural buildings
- Former location of Luton Hoo/New Mill End railway station
- Present location of a large sewage treatment centre and industrial yard
- Unaffected by airport development

East Hyde
- Village consisting of predominantly residential dwellings (Approximately 30)
- Majority late 20th century brick construction of no architectural merit
- Amenities include a Greek Orthodox Church, village hall and a private cosmetic surgery clinic
- Unaffected by airport development

Kimpton
- Large village with population of roughly 2000
- Some houses date back to the 16th century however predominantly late 20th century
- Amenities include a primary school, church, memorial hall, sports grounds and pub
- Small industrial estate located on the outskirts
- Strong community with many clubs and organisations
- Unaffected by airport development

Peter's Green
- Small hamlet consisting of approximately 30 dwellings
- Amenities include a pub and a church
- Pleasant character with village green
- Residents relocated for site of 2nd runway

Chilten Green
- Small hamlet consisting of a few residential dwellings and agricultural buildings
- Residents relocated for site of airport buildings

Bendish
- Hamlet consisting of roughly 30 dwellings and agricultural buildings
- Pleasant character but with no public amenities
- Unaffected by development

Breachwood Green
- Small village with a population of roughly 600
- Originally a farming community however it now consists of predominantly residential dwellings, most of which were built in the mid to late 20th century
- Amenities include a primary school, church, pub, and cricket club alongside tennis and football facilities
- Residents relocated for site of 1st and 4th runways

An aerial view of the proposed airport looking east from the M1 junction at sunrise
The Roskill Commission ran an inquiry between May 1968 and December 1970. Its task was to find a site for a 4 runway airport. It whittled down 78 options to 4 - Nuthampstead, Cublington, Stansted and Foulness. Roskill took the following course in evaluating alternative sites:

- They aimed to remove subjectivity from their judgement by the use of cost-benefit analysis thus quantifying all advantages and disadvantages.
- They expressed their evaluation in terms of differences in cost as compared with the cheapest site - a relative rather than an absolute judgement.
- Following criticisms, they modified the process to involve weighting advantages and disadvantages through a carefully balanced judgement process.

In comparing the two preferred sites, Cublington was judged better for access and had better defence potential and was also likely to prove “cheaper” in terms of call on resources. On the other hand Thurleigh was marginally preferable on planning aspects, while both sites clearly posed problems for local residents.

In spite of the environmental advantages of Thurleigh, all but one of the Commission opted for Cublington. The dissident, Professor Colin Buchanan publicly denounced the cost-benefit analysis approach, which, he claimed, gave undue weight to economic considerations as against environmental factors.

An alternative strategy would be the expansion of point to point airports at Stansted, Gatwick and Luton with a small increase in hub activity and Heathrow combined with a large major hub airport at Birmingham.

We believe that HM Government should consider Luton seriously. At present the process appears to require a beauty parade of various proposals which cannot be compared in a balanced way. Hopefully however they will lead to the definition of the problem to which a solution can evolve. If the problem is defined that the UK needs a new four runway hub airport in the south of England then we believe that the best solution is Luton will utilise the existing infrastructure of road and rail at Luton.

The setting for the airport provides an inspiration for a truly world class design. The design will be inspired by the rolling countryside.
The new airport provides an opportunity for a world class interior setting bringing the countryside inside the airport buildings. The airport will make a departure from the sterile environments provided currently and will have inside / outside spaces with lots of natural ventilation for a low carbon footprint.