Time to rethink Britain’s airports

The UK is short of hub airport capacity. Heathrow – the UK’s only hub airport – is full, and has been for the past decade. The Government has set up the Airports Commission to recommend a way forward. This document is a summary of our submission to the Commission.

The proposals we’ve submitted are outlines – if the Commission shortlists any, there’s much work to do to put flesh on the bones – and lots of public consultation to make sure we create the hub airport the country wants.

Governments have delayed this decision for 40 years. Lack of hub-airport capacity costs the UK in jobs, growth and £14 billion in lost trade every year. By 2030 that could be a yearly loss of £26 billion in trade.

Growth is a long time coming

Expanded hub capacity is at least 12 years away

2013
Airports Commission shortlists options

2015
Airports Commission presents final options to Government

2019
Earliest date for final approval of any new runway development

2025
Earliest operational date for a third runway at Heathrow

2034
Earliest date for a new hub airport in the Thames Estuary
Expanding Heathrow

The fastest and most cost-effective option for passengers and the UK economy

Adding a third runway at Heathrow is the best option for Britain. It brings growth sooner, makes the most of the UK’s existing assets and is cheaper for the taxpayer.

Expanding Heathrow can:

• provide more flights for less noise than today
• can bring growth within current climate-change and air-quality limits
• make the most of surface connections and infrastructure already in place or planned
• cost from £14 to £18 billion
• provide more capacity in 12 to 16 years
• secure 114,000 local jobs, create a further 70,000 to 150,000 new local jobs
• support the vast economy that has built up around Heathrow over the past 50 years
• provide enough capacity to meet demand until at least 2040 with the option to add a fourth runway if needed
• add around £100 billion to the UK economy.

Britain is losing out

For 40 years, the debate about runway capacity has been characterised by delay and indecision. Now growth can’t wait. The rapid growth of emerging economies such as Brazil, Russia, India and China is shifting the balance in the world economy. By 2050 growth markets will account for nearly half the world’s GDP (Gross Domestic Product). To win the global race for trade, UK businesses have to be able to reach these markets with ease.

Lack of capacity is costing jobs and growth

Since Heathrow – the UK’s only hub airport – is already full, there’s no spare capacity to make additional connections. Heathrow is capped at 480,000 flights a year while the UK’s competitor hub airports in Paris, Frankfurt, Madrid and Amsterdam can provide 700,000 flights a year.

Daily direct flights = 20 times more trade: The UK does 20 times more trade with emerging markets connected by daily direct flights than with markets with less frequent or no direct flights.

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One successful hub for growth

The way to build connections to both mature and emerging markets is through a successful hub airport. Hub airports are different to point-to-point airports. They provide the short-haul connections and additional passenger volumes that airlines need to make long-haul flights viable.

One hub or none

The UK cannot have two hubs. Only a hub big enough to draw in a critical mass of direct and transfer passengers will be able to make a wide range of long-haul flights economic. A dual hub fails because it splits the critical mass in two, which is why no country of a similar size to the UK has more than one hub.

Heathrow – a superb example of what a hub airport can achieve

Over the past 50 years, a vibrant economic zone has grown up around Heathrow. 202 of the UK’s top 300 companies have sited their HQs within 25 miles. This vital economy thrives on the business generated by Heathrow’s international connections.

That’s what makes a hub airport such a valuable national asset. There are only five hub airports in Europe. In Heathrow, the UK has traditionally had Europe’s most successful hub, welcoming more international passengers than any other airport in the world. It’s one of only six airports with flights to more than 50 long-haul destinations. Restrictions on growth now put the UK’s position of leadership under threat.

Support a British success: Heathrow is good – and getting better. The proportion of passengers rating their journey as ‘very good’ or ‘excellent’ has risen from 48% in 2007 to 77% today.

Passengers from regional airports need to fly to a hub to connect with flights to through destinations.

A dual hub requires twice the number of short haul flights to operate on regional routes each with half the number of passengers.

Airlines need to maximise transfer opportunities. A dual hub halves the number of available transfer passengers making marginal routes unavailable for airlines.
Expanding Heathrow
The best option for Britain

This document presents three options for adding a third runway at Heathrow. All are better for passengers and business than expanding other airports like Stansted or building from scratch in the Thames Estuary.

The fastest option
Heathrow already has most of the infrastructure a hub airport needs. Our three options could be operational within around 12 to 16 years. A new hub airport in the Thames Estuary would take 21 years.

The cheapest option
Because we’re not starting from scratch, a third runway at Heathrow would be relatively affordable. Our three options cost from £14 billion to £18 billion. A Thames Estuary hub would apparently cost between £70 and £80 billion, of which £25 billion would come from UK taxpayers.

The flexible option
Heathrow is already successful. All three Heathrow options include the ability to add a fourth runway if needed, which means that neither we nor the country have to make that commitment now.

Expanding Heathrow
The best option for passengers and business

The best-connected option
Heathrow is more convenient for passengers and businesses than any other option. People have already chosen to live, work and invest in locations with easy access to Heathrow. Travelling to a Thames Estuary airport would increase average journey times for 90% of passengers.

More connections are in the pipeline, offering even more choice over fares and service levels at Heathrow. Within a decade, almost 12 million people will live within a 60-minute journey from Heathrow. That’s about 4.5 million more than for a Thames Estuary airport.

The low-fares option
Airport infrastructure in the UK is currently privately funded and ultimately paid for by passengers through airport charges. The lower costs of building a third runway at Heathrow compared to building a new airport will translate to lower fares for passengers.

The continuity option
Heathrow is at the heart of an outward-looking, internationally minded regional economy built on 60 years of corporate investment. 202 of the UK’s top 300 companies are within 25 miles and the area around Heathrow has 60% more international businesses than the UK average.
Our commitments

In 2013 we understand our neighbours better and we’re more determined than ever to improve the lives of those nearby. To show how much we’ve changed – and to highlight the differences between our current proposals and those of the past – we’re making ten commitments to our local communities and to the country as a whole.

"These ten commitments set out what Britain can expect from a third runway"

If government supports a third runway at Heathrow, we will:

1. Connect Britain to economic growth by enabling airlines to add new flights to fast-growing markets
2. Connect UK nations and regions to global markets by working with airlines and government to deliver better air and rail links between UK regions and Heathrow
3. Protect 114,000 existing local jobs and create tens of thousands of new jobs nationwide by developing our local employment, apprenticeships and skills programmes and supporting a supply chain throughout the UK
4. Build more quickly and at lower cost to taxpayers than building a new airport by building on the strength the UK already has at Heathrow
5. Reduce aircraft noise by encouraging the world’s quietest aircraft to use Heathrow and routing aircraft higher over London so that fewer people are affected by noise than today
6. Lessen noise impacts for people under flight-paths by delivering periods of noise respite with no aircraft overhead and providing noise insulation for people in high-noise areas
7. Treat those most affected by a third runway fairly by ensuring compensation greater than market value is offered to anyone whose home needs to be purchased
8. Keep CO₂ emissions within UK climate change targets and play our part in meeting local air quality limits by incentivising cleaner aircraft, supporting global carbon trading and increasing public transport use
9. Increase the proportion of passengers using public transport to access Heathrow to more than 50% by supporting new rail, bus and coach schemes to improve public transport to Heathrow
10. Reduce delays and disruption by further improving Heathrow’s resilience to severe weather and unforeseen events
More flights, not more noise

More flights don’t have to mean more noise. Quieter aircraft and changed ways of working can reduce noise and the number of people affected. All of our three-runway options reduce the number of people within Heathrow’s 57dBA Leq noise footprint – the level of noise above which the UK Government says communities are annoyed.

New runway locations
Two of our options locate the third runway further to the west than previous proposals. For every mile west an aircraft lands, it flies 300 feet higher on its approach over London, reducing noise at ground level.

New aircraft
We’ll continue to encourage newer and quieter aircraft by charging them less to land. The Government could help by introducing ‘green slots’ – granting more capacity only to airlines that fly quieter aircraft.

New ways of working
Modern aircraft are equipped with precise navigation technology that allows us to reorganise airspace to avoid areas of high population.

Noise respite on all three runways
Unlike previous proposals, all our third-runway options include runway alternation to give periods of respite for all communities living under a Heathrow flight path.

New noise insulation schemes
We’ll offer noise insulation to homes and schools in new high-noise areas. In the highest noise areas, we’ll offer help to those who want to move home.

Tenfold reduction in noise:
Over the past 40 years, the area of Heathrow’s noise footprint and the number of people living within it has fallen tenfold.

Less noise than now:
By 2030 up to 20% fewer people will live within our noise footprint compared to today.

Areas that will experience more noise or less noise than today for NW, SW and N proposals.

Key to diagrams opposite:
- Less noise: Runways and flight paths alternate to provide respite
- Broadly similar noise: Runways and flight paths alternate to provide respite, costs of insulation provided for high noise areas
- Increase in noise: Runways and flight paths alternate to provide respite, costs of insulation provided for significant new noise
A third runway will inevitably affect some of our neighbours. The greatest effect will be on those whose homes have to be purchased, and those who would be exposed to higher levels of aircraft noise. We intend to treat affected communities fairly.

**Greater-than-market-value compensation**
Above-market-value compensation will be offered to anyone whose home has to be compulsorily purchased.

**Bond to guarantee values of affected property**
If the Government supports a third runway at Heathrow, a bond scheme will be set up to guarantee the value of affected property until a new runway is constructed.

**Noise-insulation schemes**
New noise-insulation schemes will be introduced if the Government supports a third runway.

**Extensive consultation**
Since our proposals are in outline form, it’s too early to begin formal consultation. If any of our proposals are shortlisted by the Commission, we’ll work closely with our neighbouring communities to achieve the best possible outcome for everyone.

**Saving heritage sites**
As currently set out, our Third Runway North-West option results in the loss of the Grade I-listed Harmondsworth Tithe Barn and Grade II-listed St Mary’s Church. There may be ways of developing this option so that both are preserved in their current locations.

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**Climate change**
The UK can have a third runway at Heathrow and still achieve its legally binding climate-change targets. With new aircraft, operational efficiencies and sustainable biofuels, the UK can more than double air traffic by 2050 without creating a substantial increase in gross emissions. By factoring in international carbon trading, emissions can be reduced over time.

**Air quality**
A third runway will not cause Heathrow to exceed EU air-quality limits. With greater use of public transport, cleaner aircraft engines, cleaner vehicle engines and zero-emission airport vehicles, levels of nitrogen dioxide and fine particulates (PM$_{10}$ and PM$_{2.5}$) will stay within limits.

**Flood zones and the natural environment**
Our third option results in the loss of flood-zone water storage and wildlife habitat. Through the creation of new habitats and new flood-zone storage, there will be no net loss of natural environment.

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**Cutting 2005 emissions by 50% by 2050:**
The global airline industry intends to cut its 2005 emission levels by half by 2050. Our plans for Heathrow – including a third runway – are in line with that target.
The cheapest and fastest route to growth

Building a third runway at Heathrow is the quickest way to increase hub-airport capacity. For UK taxpayers, it’s also the cheapest option.

<table>
<thead>
<tr>
<th>Speed</th>
<th>Who pays?</th>
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<tbody>
<tr>
<td>• A third runway at Heathrow could be operational as soon as 2025 (for the North option)</td>
<td>• Heathrow has invested £11 billion in airport infrastructure since 2003 without any contribution from British taxpayers</td>
</tr>
<tr>
<td>• The earliest a Thames Estuary hub airport could be operational is 2034</td>
<td>• In the current climate, raising private finance for the entire cost of a third runway will be challenging. We’ll encourage the Airports Commission to consider whether public finance should play a part in funding such a major investment for the UK</td>
</tr>
<tr>
<td>• Every year of delay costs the UK more jobs and growth.</td>
<td>• The promoters of a Thames Estuary hub face the same finance challenges. They believe UK taxpayers will have to contribute about a third of the cost, roughly £25 billion. That’s more than the entire cost of the most expensive Heathrow third-runway option.</td>
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Cost

- Depending on the option chosen, a third runway at Heathrow would cost between around £14 billion and around £18 billion
- A Thames Estuary hub airport is said to cost between £70 and £80 billion
- Adding capacity at Heathrow avoids the huge transition costs of moving hubs (transferring staff, suppliers and equipment to a new airport, compensating Heathrow and the airlines, building new towns, hospitals and schools for the tens of thousands of airport and support staff needed).
Three options for a third runway

We are submitting three options for a third runway to the Airports Commissions.

They are:

**Option 1: Third Runway North-West**
Performs better than today on noise and residential-property impact. Comparatively fast and cost-effective to develop. Has a greater impact on heritage buildings. Full-length, 3,500-metre runway provides maximum capacity, flexibility and resilience.

**Option 2: Third Runway South-West**
Performs better than today on noise and residential-property loss. Takes longer and costs more to build, and has a bigger impact on natural habitats and flood-zone storage. Full-length, 3,500-metre runway provides maximum capacity, flexibility and resilience.

**Option 3: Third Runway North**
Faster and cheaper to develop, but has a comparatively higher noise and property impact. Shorter, 2,800-metre runway reduces flight capacity, operational flexibility and resilience. Has implications for UK competitiveness compared to other options.

While we recognise that determining the right balance between the economic and environmental impacts of additional flights is ultimately a decision for Government, we believe the westerly options offer clear advantages. Read on for more detail on each option...

<table>
<thead>
<tr>
<th></th>
<th>Heathrow today</th>
<th>North West</th>
<th>South West</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passenger capacity</strong></td>
<td>80m</td>
<td>130m</td>
<td>130m</td>
<td>123m</td>
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<tr>
<td><strong>Maximum flights</strong></td>
<td>480k</td>
<td>740k</td>
<td>740k</td>
<td>702k</td>
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<tr>
<td><strong>Cost</strong></td>
<td>-</td>
<td>£17bn</td>
<td>£18bn</td>
<td>£14bn</td>
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<tr>
<td><strong>Length of new runway</strong></td>
<td>-</td>
<td>3,500m</td>
<td>3,500m</td>
<td>2,800m</td>
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<tr>
<td><strong>Noise (population within the 57dBA Leq contour)</strong></td>
<td>-</td>
<td>243k</td>
<td>-15%</td>
<td>-20%</td>
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<tr>
<td><strong>Residential properties lost</strong></td>
<td>-</td>
<td>~950</td>
<td>~850</td>
<td>~2,700</td>
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<tr>
<td><strong>Opening date</strong></td>
<td>-</td>
<td>2026</td>
<td>2029</td>
<td>2025</td>
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<tr>
<td><strong>Ecology impact (hectares)</strong></td>
<td>0</td>
<td>0</td>
<td>716</td>
<td>0</td>
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<tr>
<td><strong>Volume of flood zone 3 storage lost (m³)</strong></td>
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<td>116k</td>
<td>1,416k</td>
<td>6k</td>
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<td><strong>Grade I/II listed buildings lost</strong></td>
<td>-</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Construction complexity</strong></td>
<td>-</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
</tr>
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</table>
Option 1:
Third Runway North West

- To the west of 2003 proposal for a short runway, just south of M25/M4 junction
- Runway covers Old Slade sewage works, Harmondsworth Moor, Harmondsworth and Longford
- Performs well on noise – 15% fewer people would lie within Heathrow’s noise footprint

- Runway alternation provides noise relief for all communities
- Performs better than Benchmark Option on residential property loss – around 950 homes compulsorily purchased
- Part of M25 would have to be reconfigured
- Potential not to disturb Harmondsworth Tithe Barn and St Mary’s Church
- Comparatively fast and cost-effective to build with no need to move reservoirs
- Full-length runway provides maximum capacity, flexibility and resilience
- Estimated operational date: 2026; estimated total cost: around £17 billion.
Option 2: Third Runway South West

- Runway would go over the King George VI and Wraysbury reservoirs
- New apron and terminal facilities on site of Stanwell Moor
- Performs well on noise – 20% fewer people would lie within Heathrow’s noise footprint
- Runway alternation provides noise relief for all communities

- Performs best on residential property loss – around 850 homes compulsorily purchased
- New sites to be provided for wildlife habitat and flood-zone storage
- M25 Junction 13 rebuilt and a larger section of M25 tunnelled than for Option 1

- Complex construction challenge increases costs and time
- Full-length runway provides maximum capacity, flexibility and resilience
- Estimated operational date: 2029; estimated total cost: around £18 billion.
Option 3: Third Runway North

- Runway would go over villages of Sipson, Harlington and Cranford Cross
- 10% fewer people would lie within Heathrow’s noise footprint
- Runway alternation provides noise relief for all communities
- Performs least well on residential property loss – around 2,700 homes compulsorily purchased
- Fastest and most cost-effective runway to build
- Shorter runway reduces flight capacity, operational flexibility and resilience
- Estimated operational date: 2025; estimated total cost: around £14 billion.
Flexible approach to long-term capacity

Expanding Heathrow is not a short-term fix. Heathrow is for the long-term because all third-runway options can be extended to four runways.

Capacity of a three-runway Heathrow

The maximum capacity of a three-runway Heathrow is around 740,000 flights and 130 million passengers a year. We think that’s enough capacity to satisfy demand until at least 2040.

Extending to four runways

No one can predict demand beyond 2040 with enough accuracy to say a fourth runway will be needed. That makes Heathrow the best option as additional capacity can be added as demand requires and finance allows. In contrast, a new hub airport would require investment upfront based on uncertain future demand.

We think Heathrow could have four runways and still reduce the total number of people within the airport’s noise footprint.

Developing a fourth runway (if it were needed) following either of our lead options would cost around £8 to £14 billion and involve the compulsory purchase of another 200 to 2,700 homes depending on the option.
Winning the race for growth

Growth and jobs won’t wait. Time is tight and our competitors are already out there doing deals and stealing trade. Britain must move fast if it wants to win.

Expanding Heathrow is the logical solution to the UK’s shortage of runway capacity.

A three runway Heathrow:

• has most of the infrastructure in place or planned – why waste time and money starting from scratch?
• is best for the British and overseas businesses that already made Heathrow their choice by investing nearby for the past 50 years
• is easier to reach for more of the UK than the Thames Estuary
• will be quieter than the current two-runway airport
• will operate within the UK’s climate-change and air-quality limits
• will be ready sooner than any other
• will cost less than any other option.
Our vision for Heathrow isn’t more tarmac

There are no painless ways to add new hub capacity for the UK. Whichever option the Government chooses, there will be significant costs and disruption for some communities.

It’s a tough decision for a government to take, but one it has to take. History shows the UK is better off connected. For 350 years, the country has had the world’s largest port or airport on its shores. Britain’s trading connections have put it at the centre of the world map. Without those links, these are just small islands in a large ocean.

The world is a mere 3,500 metres away


Heathrow’s third runway is not about more tarmac. It’s about Britain’s place in the world.