

Airports Commission Guidance Document 01:

Proposals for making the best use of existing capacity in the short and medium terms

Heathrow Airport Limited

Date: 17th May 2013

This document is Heathrow's response to the Airports Commission's Guidance Document 01 (section 2) on proposals for making the best use of existing capacity in the short and medium terms (hereafter called the 'Commission's Paper').

With demand unequivocally showing the need for improved capacity at Heathrow, the UK's single hub airport, we have based this report on the premise that developing Heathrow is the best long-term solution. Pending additional runway capacity becoming available, we have structured this paper to examine ways in which additional capacity has been and continues to be maximised at Heathrow to serve immediate global interconnectivity needs.

Contents

1. Context – Heathrow already makes very efficient use of its capacity – there is no quick, easy fix	3
2. Heathrow is working hard to improve resilience and hub competitiveness.....	5
3. We suggest a package of measures to help hub competitiveness in the short & medium term	8
4. Conclusion	12

Overview

There is no quick or easy way to address the UK's aviation hub capacity crisis. Only a hub airport with at least three runways can deliver the economic growth we need to compete globally. Heathrow is the UK's only hub airport, and worthwhile capacity gains in international connectivity will only be secured by building on its capacity with as little delay as possible.

It is important to highlight the following relevant contextual factors when considering adding flights using its two existing runways:

- 1. Heathrow is already the world's most efficient and productive two-runway airport.** It carries nearly 80% more passengers per runway than the average for the top 20 airports globally, and it operates more flights off two runways than many airports achieve with three or four. With a flight taking off or landing at Heathrow on average every 45 seconds throughout the operational day, the scope for operating more flights from existing runways is extremely limited.
- 2. Flights at Heathrow are capped at 480,000 p.a. by a Terminal 5 planning condition imposed in 2001.** Due to the Local Planning Authority stated policy position on Heathrow expansion, the likely timescale, cost and effort required to lift that cap would be likely to take several years.
- 3. Airlines place a high value on predictable and reliable operations that allow them to offer a high level of customer service.** Heathrow's ability to offer such a service is challenged, because it is operating at near maximum runway capacity. This means that adverse weather typically causes more disruption here than it does at other airports.

We believe that any further marginal short-term improvements that we can bring to the efficiency of Heathrow's runways should be used primarily to make the airport more resilient, rather than to expand the schedule. In the short term, this is more important for maintaining the UK's global hub status. To remain competitive as a leading global hub, Heathrow must continue to improve the passenger experience. More punctual and predictable journeys will enable business passengers to make better use of their valuable time. Faster, more reliable connections will allow Heathrow to attract the transfer passengers that make its network viable.

Heathrow is working hard, in partnership with airlines and Air Traffic Control (ATC), to improve operational performance and efficiency that will deliver passenger benefits. Punctuality has improved from 52% in 2007 to 78% in 2012 and significant improvements to resilience have also been made. Continuing this improvement in future will involve investing in new infrastructure, such as rapid exit or wider taxiways that are suitable for A380s. It also involves developing collaborative airport and airspace management initiatives such as Heathrow's Airport Collaborative Decision Making programme; the CAA's Future Airspace Strategy; and the EU's Single European Sky Air Traffic Management Research Programme. All will improve the use of available runway and airspace capacity and enable airlines to fly in more environmentally efficient ways.

CAA's proposals for the regulation of Heathrow put further investment proposals at risk and threaten UK hub competitiveness

Up until very recently, we believed that the interests of the UK as a whole, the interests of Heathrow's passengers and the interests of Heathrow itself have been closely aligned. Heathrow has been incentivised to improve operational performance and passenger experience, and penalised where targeted service standards have not been met. Consequently there has been a sustained improvement in performance. For example, passenger experience has improved from 48% of passengers in 2007 rating Heathrow either excellent or very good, to 77% in 2013. There is now a very real risk of diverging interests. The CAA's recent proposals for the regulation of Heathrow (see paragraphs 2.15-2.17) have significantly reduced the incentive to invest in Heathrow over the short and medium term.

If the CAA's current proposals are implemented then capital plans that would help to improve UK hub competitiveness – such as those associated with widening taxiways, improving resilience, enhancing security capacity or automation of passenger's journeys – could be put at risk. This would be an unwelcome and backward step for the tens of millions of passengers using the UK's hub airport every year.

We want to keep making Heathrow better for our passengers and airlines by continuing to invest. The CAA must set the allowed returns at a competitive level in order for those investments and improvements to continue.

Maintaining hub competitiveness while reducing noise impact

In this submission we suggest a further package of measures the Commission may wish to consider that would help to maintain the competitiveness of the UK's hub while also addressing noise impacts for local communities. These include:

1. Redesigning the airspace local to Heathrow and the London Terminal Manoeuvring Area.
2. Introducing runway alternation when the airport is operating with aircraft landing or taking off heading east.
3. Introducing measures assessed during the recent Operational Freedoms trial.
4. Putting an end to the routine use of both runways for arrivals between 06.00 and 07.00.
5. Changing the policy of concentrating aircraft on only a few flight paths to one using a greater number of routes in a pattern that provides predictable periods of respite from aircraft flying overhead.
6. Reassessing the policy of 'first come, first served'.
7. Ending the policy of westerly preference.

With none of these proposals generating more flights at Heathrow, the airport would remain within its current limit of 480,000 flights per annum over the short to medium term.

A new view on noise respite under mixed mode operations

In preparing our response to the Commission, we have looked in detail at options to increase the number of flights at Heathrow on two runways, such as mixed mode. Heathrow is not advocating the use of mixed mode as a short-term measure to increase capacity. 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 that the incremental capacity delivered by full mixed mode comes at a significant cost to the local community as it would end periods of respite from noise, without providing a real solution to the UK's shortage of hub capacity.

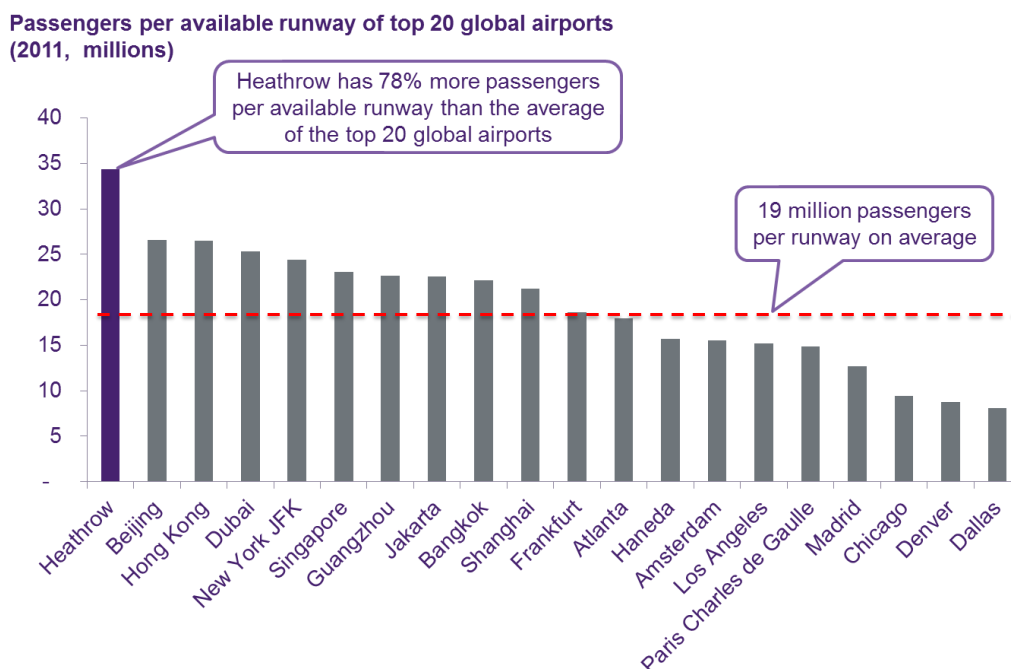
An additional runway at Heathrow would deliver sufficient new capacity for the foreseeable future, while providing periods of noise respite for residents. We believe that more intensive use of two runways at Heathrow should only be considered as part of a transitional plan towards a third runway. Any transitional plan should recognise the importance of respite to local residents.

An additional runway: the only long-haul connectivity solution

Although the measures we propose in this submission are valuable, by themselves they can only make a small contribution to maintaining the UK's global hub status. They are no substitute for providing an additional runway at a single UK hub airport – the solution ultimately required to deliver long-haul connectivity for the UK.

1. Context – Heathrow already makes very efficient use of its capacity – there is no quick, easy fix

- 1.1. Heathrow makes more efficient use of its capacity than any other hub airport. It carries 34m passengers per available runway – nearly double that of its closest European competitor (Frankfurt at 19m) and 78% more than the average of the top 20 largest airports in the world. As a consequence of its runway constraint, Heathrow operates at near capacity (~98% of its Air Transport Movement [ATM] cap).



- 1.2. Over the last decade there have been numerous actions to extract as much connectivity and capacity from Heathrow as possible. They include:

- **Government liberalisation of aviation markets.** The UK Government has worked internationally to liberalise aviation markets – allowing market forces to take effect, driving airline consolidation and the growth of joint businesses and alliances. This has created a more stable and networked marketplace.
- **The shift from short to long haul.** Over the last decade, Heathrow has experienced a gradual tightening of its capacity constraint. Alongside this, the emergent Low Cost Carriers have taken a significant share of the short haul, point-to-point market from the network airlines operating at Heathrow. This has contributed to a conversion of some Heathrow slots from short to long haul. The proportion of Heathrow's passengers that travelled long haul rose from ~36% in 1995 to ~50% in 2008, a much higher proportion of passengers than at any other airport. It is not expected that this proportion will rise significantly as network airlines need short haul flights to supply the transfer passengers that make long haul flights viable.
- **Growth in average aircraft size.** As a result of the substitution of short-haul for long-haul routes, Heathrow has experienced some growth in average aircraft size. Despite this increase, the average number of seats per aircraft movement has broadly remained steady. In part this has been driven by long haul aircraft having relatively more business class and premium economy seats and relatively fewer economy seats.
- **Increased stand supply.** Heathrow has invested in new wide body stands for Terminal 5, Terminal 3, and for the new Terminal 2, the first phase of which is already operational. This has made it easier to accommodate the new generation of wide body aircraft fleet at

Heathrow and allow airlines to offer increasingly high levels of customer service while supporting airline growth ambitions.

- **Rise in passenger load factor.** Also symptomatic of its capacity constraint, Heathrow's passenger load factor has risen substantially over the long term from around 70% in 2000 to around 76% today. Flights that are less full are typically those operated during off-peak periods throughout the year or week, providing the predictable, frequent schedule that business passengers demand of scheduled airlines. Airlines also need to operate their slots at least on 80% of the time to avoid the risk of losing them.
- **Increase in the maximum hourly number of scheduled flights.** In order to serve this evolving traffic mix, Heathrow has invested £11 billion in infrastructure and improving hub performance since 2003. Combined with improvements in operating capability across the Heathrow community this has enabled increases in the maximum hourly number of scheduled flights.
- **Introduction of secondary slot trading.** Heathrow's slot coordinator Airport Coordination Limited has facilitated an active secondary slot trading market. Airlines are also allowed to operate one-off ad-hoc slots if available. These aim to maximise Heathrow's capacity beyond what is conventionally possible.

Near capacity two-runway operations at Heathrow allows minimal room for growth

- 1.3. Despite constraints, Heathrow anticipates being able to make better use of its marginal capacity and deliver some moderate passenger growth over the next ten years. As airlines modernise their fleets an increase in average aircraft size may be delivered. British Airways' purchase of bmi is driving a better use of this capacity, consolidating services on some routes and introducing several new ones. We expect the combined effect of larger average aircraft and better use of capacity to support growth in passenger numbers of 0.5-1% p.a. However this growth is far from certain as airlines could choose not to add capacity, instead focusing on improving the profitability of their existing capacity, at least in the short term.

Airlines place a high value on predictable and reliable operations that allow them to offer high levels of customer service

- 1.4. To remain competitive as a leading global hub, Heathrow must continue to improve the passenger experience. More punctual and predictable journeys will enable business passengers to make better use of their valuable time. Faster, more reliable connections will allow Heathrow to attract the transfer passengers that make its network viable.
- 1.5. In recent years Heathrow has made significant improvements to punctuality and resilience. Punctuality has improved from 52% in 2007 to 78% in 2012. Significant improvements to resilience have also been made, in line with the recommendations of the 2011 Heathrow Winter Resilience Enquiry¹. However there is much more to do.
- 1.6. Heathrow believes that a 480,000 ATM schedule can be operated punctually and, at the same time, that the airport can also have the capability to cope with disruption and return to schedule as quickly as possible.

To achieve this improved level of performance, any further marginal improvements in operating capability should be used for resilience rather than more flights.

¹ Report of the Heathrow Winter Resilience Enquiry, Professor David Begg, www.heathrowairport.com

2. Heathrow is working hard to improve resilience and hub competitiveness

2. Heathrow has invested £11bn improving UK hub competitiveness

- 2.1. Over the last ten years a major and sustained investment has been made in Heathrow, including the development of Terminal 5, voted the world's best airport terminal, and the new Terminal 2, set to open next year. These investments, together with the wider efforts of the Heathrow community, have driven a major improvement in passenger experience. 77% of passengers now rate their experience at Heathrow either excellent or very good, up from 48% in 2007. Over the same period there has been a 63% reduction in the baggage misconnect rate.

Heathrow has been planning a further £3bn of investment, with a particular focus on infrastructure to improve resilience and airport and airspace management

- 2.2. Key features designed to contribute to better short to medium term use of hub capacity include:

- **Actions to improve punctuality and resilience** – see below
- **Completion of a new Terminal 2 – Phase 1**
- **Investment in new stands and airfield upgrades** – enabling Heathrow to handle more new generation long haul aircraft e.g. A380s
- **Further investment in baggage hub infrastructure** – supporting improvements in Heathrow's transfer proposition
- **Support for Crossrail** – providing high frequency, mass transit direct rail connections between Heathrow and Central London, the City and Canary Wharf – and bringing 2.5 million more people within a 60 minute isochrone of the airport

- 2.3. For more detail on the draft five-year plan, see www.heathrowairport.com (search 'Q6 Heathrow Full Business Plan').

Actions to improve punctuality and resilience

- 2.4. Despite Heathrow operating at 98% capacity for much of the day, passengers still quite rightly expect their flights to depart and arrive on time. To achieve this more consistently, the airport and airline community need to design greater predictability into the schedule, manage variations in the schedule and then recover quickly if disruption occurs.
- 2.5. Our actions to develop operational efficiency at Heathrow are designed to target better resilience and improve punctuality towards 90% by 2019. They include:

Working to a plan – supporting the daily flying schedule with better punctuality and resilience

- 2.6. By the end of Q6 (2019), through collaboration with NATS, the CAA and the airline community, Heathrow aims to improve punctuality towards 90% of flights arriving or departing within 15 minutes of their scheduled time. Helping the airport to run smoothly on as many days as possible sounds simple but, in reality, requires significant investment of time and resources across the whole airport community including NATS and the CAA.
- 2.7. A relatively small decrease in system utilisation and/or small improvement in system efficiency can produce significant performance improvements. Heathrow is working closely with its industry partners to 'operate to plan' – by promoting better schedule adherence. This will help to smooth peaks in demand, reducing the instances of high system utilisation and consequently make the system more effective, punctual and reliable.
- 2.8. At a tactical operational level the newly implemented APOC (Airport Operations Centre) provides collaborative forum for the development and execution of a dynamic joint Airport Operation Plan (AOP) enabled by the introduction of Airport Collaborative Decision Making.

Air Traffic Management Modernisation – delivering against the UK Future Airspace Strategy and SESAR programmes

- 2.9. Operationally, we are working closely with our domestic and European airlines and air navigation service providers to realise the benefits of innovative new procedures. These include those recently trialled under 'Operational Freedoms' and others suggested by the Future Airspace Strategy (FAS). In the longer term we are focused on bringing the safety and efficiency benefits of the Single European Sky Air Traffic Management Research programme (SESAR) to the airport.
- 2.10. The FAS and SESAR initiatives share a common set of goals to improve capacity, safety, performance and environmental impact. These goals are founded within the Single European Sky legislation and will become visible at Heathrow in several ways including:
- Improvements in capability
 - The means by which operational 'headroom' is generated
 - Developments in safety management which could affect capacity through airspace resource wastage
 - Real-time measurement of performance leading to optimisation and
 - The improved environmental performance which results from these areas.
- 2.11. These airspace improvements will significantly reduce stacking for arriving aircraft and queuing for departing aircraft. Revised flying times will reduce fuel burn by 10% and remove the inefficiencies of building surplus time into schedules to compensate for excess airborne and runway holding times. In 2010 for example, NATS estimated the cost of stacking at Heathrow to be £120,000 per day and over 200,000 tons of unnecessary CO₂ per annum.

Proactively reducing capacity – in advance of extreme weather events to improve resilience

- 2.12. The Heathrow ATM Demand and Capacity Balancing Group (HADACAB) has become increasingly successful in improving Heathrow's resilience by proactively reducing capacity in advance of extreme weather events. The proactive approach enables airlines to adjust their operations in advance and re-route or rebook passengers as appropriate. At an operational level HADACAB is supported by the Heathrow Operational Efficiency Cell (HOEC) which aids early decision making by bringing together meteorological forecasters, air traffic control representatives and the airport to predict and prepare for adverse weather.

Collectively these actions are significantly improving operating performance & passenger experience

- 2.13. Over recent years, Heathrow has seen improved performance in punctuality, resilience and predictability, and this will be built on in the future. Collectively, such improvements provide benefits to passengers, airlines, the economy, society and the environment. They help us to 'make every passenger journey better' while running our airport safely, responsibly and securely.
- 2.14. The outcome for the passenger will be more reliable journey times, taking the stress out of the airport experience, as aircraft queuing time to take off is reduced and taxiing times are shortened. The predictability and reliability of Heathrow's schedule shapes passengers' overall experience of the airport and its facilities; the more predictable the departure schedule, the better the passenger experience. Overall these actions are expected to support benefits to passengers and airlines by:
- Reducing departure delays by up to 20%
 - Cutting tactical flow restrictions by up to 30%
 - Delivering fuel savings of around 10,000 tons per annum
 - Bringing down handling costs by up to 10%.
 - Reducing the number of misconnected bags
 - Reducing emissions

- 2.15. If delivered, our Q6 Heathrow Full Business Plan will ensure that:

- The operation of the runway infrastructure meets the needs of the airport schedule in normal conditions
- Airlines can reduce schedule buffer times based on optimised arrival and departure flow, and more accurate modelling of available capacity
- Airborne and ground-based fuel burn, CO₂ and harmful NO_x emissions are substantially reduced
- Better tactical decisions are made and resources more efficiently used through better sharing of operational data – including a higher degree of situational awareness in both normal and disrupted conditions and
- Airfield performance, through collaborative use of data, can be quantified, measured and improved.

However the CAA's proposals for the regulation of Heathrow put these investment proposals at risk and threaten UK hub competitiveness

- 2.16. In its initial proposals for Heathrow's 2014-2019 economic regulation, the CAA has put forward a cost of capital of 5.35% - down from 6.2% and 7.75% in the last two regulatory periods. This proposed rate of return fundamentally misrepresents the risk profile of Heathrow and is insufficient to attract the necessary investment at Heathrow for the short and medium term.
- 2.17. We operate in a competitive market for capital investment and if the risk to return equation is not sufficient then the rational response of any investor will be to invest in other, more attractive opportunities. If the CAA's current proposals are implemented then capital plans that would help to improve UK hub competitiveness – such as those associated with widening taxiways, improving resilience, enhancing security capacity or automation of passengers' journeys – could be put at risk. This would be an unwelcome and backward step for the tens of millions of passengers using the UK's hub airport every year.
- 2.18. We want to keep making Heathrow better for our passengers and airlines by continuing to invest. The CAA must set the allowed returns at a competitive level in order for those investments and improvements to continue.

3. We suggest a package of measures to help hub competitiveness in the short & medium term

3. Redesigning the airspace local to Heathrow and the London Terminal Manoeuvring Area

- 3.1. As part of the UK Future Airspace Strategy, London's airspace is scheduled for redesign over the coming five years. This will provide an opportunity to take advantage of modern aircraft design and navigational capability to make a real difference by offsetting community disturbance.
- 3.2. This redesign would be achieved by a submission of an airspace change proposal by Heathrow Airport to the CAA's Director of Airspace Policy, assisted by NATS. This has the potential to deliver more efficient use of the airspace around Heathrow and better environmental performance. The Department for Transport may also need to consider how the design of Noise Preferential Routes (the flight corridors that aircraft leaving Heathrow follow) may need to be adjusted, so that aircraft operate as efficiently as possible and fly over less populated areas.

Introducing runway alternation when the airport is operating with aircraft landing or taking off heading east

- 3.3. This would provide new respite periods for communities in Slough and Windsor living beneath the approach to the northern runway on easterly operation, and also to communities under the departure routes close to the southern runway.
- 3.4. A system of 'runway alternation' already exists at Heathrow during 'westerly operations' – when aircraft are landing and taking off towards the west. This means that the runway used for landing switches at 3pm each day, providing a predictable period of time without noise for communities under the final approach paths. The Government introduced the system in the 1970s.
- 3.5. The same runway alternation system does not currently exist during periods of easterly operation. This is a result of the so-called 'Cranford Agreement' under which aircraft do not take off on the northern runway during easterly operations.
- 3.6. In 2010 the current Government confirmed the previous Government's 2009 decision to end the Cranford Agreement. However, in order to operate easterly runway alternation most effectively, Heathrow needs to upgrade its taxiway infrastructure to allow aircraft to enter and exit the existing runways as efficiently as possible. Heathrow is likely to need planning permission for the necessary taxiway improvements and is likely to submit a planning application for such works to Hillingdon Council during 2013.

Introducing measures assessed during the recent Operational Freedoms trial

- 3.7. Measures assessed during the recent Operational Freedoms trial include 'early vectoring' to improve departure rates; tactically using both runways for arrivals when there are delays; and using the southern runway for the arrival of A380s and for Terminal 4 arrivals. These strategies would improve resilience.
- 3.8. The Operational Freedoms trial used a number of mechanisms to address scenarios that have been identified as root causes of disrupted days – those days of the year when disruption at Heathrow results in delays, poor levels of punctuality and, ultimately, a poor passenger experience.
- 3.9. These mechanisms used a more flexible approach to the operation of the runway infrastructure and were subject to an appropriate level of governance both from within Heathrow and by the Civil Aviation Authority. This ensured that safeguards and limitations existed to ensure that the interests of the local communities surrounding Heathrow were taken fully into consideration.

- 3.10. The basis on which the runway infrastructure is used in normal operation is a 'segregated mode', with one runway used for arrivals and the other for departures. The original objective behind the introduction of operational freedoms was to trial the way in which changes to operational practices might have a beneficial effect on the reduction in delays experienced by users, improvement in flight punctuality and the increased resilience of the flying schedule.
- 3.11. Under operational freedoms mechanisms were explored to assess the impact of the objectives on noise, air quality and general disturbance for communities living close to the airport. To do this, we engaged widely with the broader stakeholder community. This included releasing daily operational data on Heathrow's website and holding monthly meetings with an informed group of local authority officers at which the trial was discussed and findings agreed.
- 3.12. The trials clearly demonstrated that Heathrow's existing segregated mode of operation exists in what could be described as a closed system. This means that opportunities to enhance the flow of arrivals are limited by the system's impact on departures. The only way that these dependencies can change is to introduce, on a tactical basis, the use of both runways for arrivals ('Tactically Enhanced Arrivals Measures' or TEAM) and to modify departure practice to overcome limitations in the route design for departures through 'Early Vectoring'.
- 3.13. The operational freedoms proposed for future use at Heathrow therefore include:
1. Early vectoring on adjacent, constrained departure routes
 2. Tactical use of TEAM to alleviate airborne holding
 3. Tactical use of the southern runway for Terminal 4 and A380 arrivals.
- 3.14. In the future, we expect that our improvement initiatives work will also result in the implementation and recognition of 'time based separation' as a means to make the arrival flow more efficient, particularly during strong winds. The overall adoption of Performance Based Navigation (PBN) will also allow the design of airspace more suitable for modern aircraft types and offer options to mitigate against overflying residents living under the extended runway centrelines.

Putting an end to the routine use of both runways for arrivals between 06.00 and 07.00

- 3.15. This could be achieved by permitting an increased number of arrivals on one runway between 05.00 and 06.00. Rather than increasing the total number of flights, this would redistribute existing flights to deliver new periods of respite from early morning noise for local communities, while improving hub competitiveness by making more passenger connections viable.
- 3.16. The demand for arrival capacity at the start of the operational day is such that the capacity of a single runway is insufficient to handle the traffic without unacceptably high levels of delay. This is initially caused by airborne holding in the stacks around Heathrow, and then quickly followed by 'pre-departure' delays incurred by aircraft inbound to Heathrow while still on the ground at the origination airport. Historically, we have used TEAM to offset delay by using the 'departures' runway for arrivals to the detriment of respite for communities beneath the approaches. This proposal would modify the early morning arrival traffic flow by enabling more arrivals in the 0500 hour to support international connectivity while also avoiding the use of TEAM until after 0700 hours to mitigate community disturbance.

Changing the policy of concentrating aircraft on only a few flight paths to one of using a greater number of routes in a pattern that provides predictable periods of respite from aircraft flying

- 3.17. Heathrow already uses a form of dispersion now known as 'runway alternation' whereby residents benefit from periods of respite from noise as the designated runways for arrivals and departures are changed daily at 3pm. This approach could be expanded to encompass variations to both approaches and departures using more precise navigational performance and modern aircraft capability. For example, the introduction of steeper approaches as a noise mitigation technique and variable departure tracks could offer further respite.

- 3.18. Departing or arriving aircraft currently follow a handful of flight paths – concentrating noise to overflow areas. As modern precision navigation techniques allow aircraft to fly on many different routes, it may be better for aircraft to fly a wider range of flight paths to provide periods of time with and without noise for communities around Heathrow.

Reassessing the policy of 'first come first served'

- 3.19. This is the practice by which the first aircraft to arrive into Heathrow airspace are permitted to land first. It is commonly understood that air traffic rules and their application are grounded in 'first come first served' as a means to regulate workflow within sectors by air traffic controllers. As the airspace and runway usage has risen, this concept has tended not only to result in delays, but also reward airlines whose crews arrive earlier than scheduled to the detriment of on time arrivals. From an airport perspective, the passenger expects to depart and arrive on time as detailed on their flight ticket and therefore a move towards 'service by schedule' is overdue. Aircraft equipped with the latest performance-based navigation systems could also be prioritised. This would result in a better structured flying programme, more efficient operations and less delay.

Ending the policy of westerly preference – by which aircraft land or take off heading west even when weather conditions mean they could land in the opposite direction

- 3.20. Aircraft normally land and take off into the wind. However, they can also do both with some tailwind. At Heathrow, the Government introduced a 'westerly preference' policy in the 1970s. This means that when the wind is blowing from the east at up to five knots, aircraft still land and take off towards the west rather than towards the east. This policy was introduced to minimise the number of aircraft taking off towards the east over more densely populated areas. It was introduced to tackle noise at a time when noise from departing aircraft was considered more disruptive than noise from landing aircraft.
- 3.21. The prevailing wind from the UK is from the west which means that even without the 'westerly preference', the majority of operations at Heathrow would be westerly. However, the preference policy has increased the percentage of westerly operations. While this means that there are fewer departures over London, it does mean that there are more arrivals over it.
- 3.22. There is a case for studying in detail both the noise and operational implications of ending westerly preference. Since the 1970s, aircraft departure performance has improved significantly. This means that aircraft are able to climb more rapidly and more quietly, and that the noise impacts of departures are fewer than they were when westerly preference was first introduced. If westerly preference were removed, there may be a more equitable distribution of departure and arrival noise between areas to the east and west of the airport. We have commissioned a study from NATS to better understand the noise and operational implications of ending this policy. We expect the initial results of that study shortly and will share them with the Commission when available.
- 3.23. Adopting this measure would be subject to NATS concluding that this would deliver a noise benefit for residents without compromising operational performance.

With none of these proposals generating more flights at Heathrow, the airport would remain within its current limit of 480,000 flights per annum.

We are not proposing mixed mode operations as we believe the incremental capacity comes at a significant cost to local communities due to the loss of respite

- 3.24. In preparing our response to the Commission, we have looked in detail at options to increase the number of flights at Heathrow on two runways, such as mixed mode. Heathrow is not advocating the use of mixed mode as a short-term measure to increase capacity. 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 that the incremental capacity delivered by full mixed mode comes at a significant cost to the local community as it would end periods of respite from noise, without providing a real solution to the UK's shortage of hub capacity.
- 3.25. An additional runway at Heathrow would deliver sufficient new capacity for the foreseeable future, while providing periods of noise respite for residents. We believe that more intensive use of two runways at Heathrow should only be considered as part of a transitional plan towards a third runway. Any transitional plan should recognise the importance of respite to local residents.

4. Conclusion

- 4.1. Heathrow continues to work closely with Government and its aviation partners to make the best use of hub capacity, delivering diverse programmes to enable growth in passenger numbers at a constrained Heathrow of ~0.5-1% p.a. However, it is important to note that these are limited tactical measures that will not slow the long-term decline of Heathrow's hub status and the UK's relative connectivity. Ultimately, Heathrow needs a new runway to increase capacity and connectivity.
- 4.2. Faced with the prospect of no new hub capacity at Heathrow, network carriers with overseas hubs are starting to 'hoover up' the UK's un-served hub demand by carrying it out via their overseas hubs. This has significant adverse consequences for the UK economy and connectivity. Although the measures we propose in this submission are valuable, by themselves they can only make a small contribution to maintaining the UK's global hub status. They are no substitute for providing an additional runway at a single UK hub airport – the solution ultimately required to deliver long-haul connectivity for the UK.