

Britain's Transport Infrastructure  
**Adding Capacity at Heathrow:  
Decisions Following Consultation**

January 2009

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# Purpose

1. On 15 January 2009 the Secretary of State for Transport announced to Parliament his policy decisions on the future development of Heathrow airport, following the *Adding Capacity at Heathrow Airport* consultation which closed in February 2008 and the subsequent consultation on an *Equalities Impact Assessment* which closed in November 2008. The purpose of this document is to summarise those decisions and to identify the core evidence which the Secretary of State took into account.

# Summary of Decisions

## 2. In summary, the Secretary of State –

- confirms policy support for adding a third runway at Heathrow with additional passenger terminal facilities and a slightly longer runway (2,200m operational length), but subject to an aggregate limit of 605,000 annual movements, which would be subject to review in 2020;
- does not support the introduction of mixed mode on the existing runways as an interim measure before a third runway;
- confirms his intention to end the ‘Cranford agreement’ (which currently limits easterly departures off the northern runway);
- confirms his view that the following operating practices should be retained and continued:
  - ‘westerly preference’ (the preferred direction of operation of the runways except in strong contrary winds);
  - ‘night-time rotation’ (the practice of alternating the use of the existing runways at night between westerly and easterly preference, subject to weather conditions);
  - ‘early morning alternation’ (the practice of alternating arriving aircraft between the two runways in the 0600 to 0700 period, subject to operational requirements).

# The Policy Context

3. Heathrow airport plays a vital role in the economy of London, the South East, and the UK as a whole. Heathrow employs around 100,000 people directly and indirectly, and is part of a sector that employs over 200,000 people directly in the UK, contributing over £11 billion a year to the economy. As the UK's major hub airport, Heathrow should be able to support a wider range of direct flight destinations and frequencies than would be possible without transfer passengers. This brings benefits for business passengers, those visiting friends and relatives, as well as leisure passengers.
4. Heathrow has witnessed strong growth over recent decades, currently handling 68 million passengers and 477,000 flights a year compared to around 48 million passengers and 427,000 flights a year in 1996. In the absence of any increase in runway capacity, this growth has resulted in Heathrow's runways operating at around 99% capacity compared to its main European competitors which operate at around 75% capacity, leading to increased delays, lower resilience and fewer destinations served.

## *The Future of Air Transport White Paper*

5. The challenges facing Heathrow informed just one part of the key policy conclusions of the 2003 *The Future of Air Transport White Paper* (ATWP). This was published following the largest transport consultation ever<sup>1</sup>, attracting over 500,000 responses from the public, with 300,000 of these concerned with expansion issues in the South East, particularly at Heathrow. In addition to the main consultation document over 60 technical documents were published which examined a wide range of environmental, economic and social impacts of growth at South East airports.
6. After careful consideration of the consultation material and the responses to it, the Government identified a need for two new runways in the South East in the period to 2030, the first at Stansted and the second at Heathrow, but the latter only subject to strict local environmental conditions. These were:

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<sup>1</sup> *The Future Development of Air Transport in the United Kingdom* series of regional consultation papers.

- a commitment not to increase the size of the area significantly affected by aircraft noise, as measured by the 57 decibel (dBA) noise contour in 2002 (being the most recent position at the time the ATWP was published). Its size in 2002 was 127 sq km;
- confidence that the UK's European obligations with respect to air quality could be met; and
- public transport improvements to the airport.

## Project for the Sustainable Development of Heathrow

7. To assess whether and how Heathrow could develop whilst meeting these conditions, the Project for the Sustainable Development of Heathrow (PSDH) was established by the Department for Transport in 2004. The PSDH involved a range of policy officials and outside experts working with BAA, the CAA and NATS over three years to commission and gather together a wide range of evidence, published in 14 technical reports<sup>2</sup>. This indicated that further development of Heathrow could be achieved consistent with the conditions set out in the AWTP.

## The *Adding Capacity at Heathrow Airport* Consultation

8. The results of the PSDH were reported in the *Adding Capacity at Heathrow Airport* consultation document (the consultation document) published on 22 November 2007. The consultation ran until 27 February 2008.
9. The consultation document presented updated proposals for a slightly longer runway – 2,200 metres operational length – and a new passenger terminal north of the A4 and directly connected to the existing railway line. It reported on the results of the detailed technical assessment carried out through the PSDH on noise and air quality and surface access implications. In addition, it invited comments on proposals for making better use of the existing two runways in the meantime by introducing what is known as mixed mode operations, that is, using the runways for both landings and take-offs, instead of the current practice which normally segregates the runways, with aircraft landing on one and taking off on the other.
10. The Government made clear that the same local environmental conditions should apply both to a third runway and to any mixed mode operations on the existing runways, and the consultation document set out the Department's assessment of the noise and air quality impacts, and other issues including airspace and costs and benefits.

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<sup>2</sup> See 'The Evidence Base', p28

11. Finally, the consultation document reported on a number of operating procedures, including the 'Cranford agreement', 'westerly preference' and runway alternation for early morning arrivals, and invited views on the merits of retaining or modifying these practices.
12. The main consultation was one of the largest undertaken by the Department. The main consultation document was made available on the Department's website on the day of the launch, mailed direct to over 500 stakeholders and a summary was distributed to 217,000 households around the Heathrow area. There was also extensive advertising in both local and national press. Eleven public exhibitions were held around the airport during December 2007 and January 2008, with two more in central London, where the consultation material was displayed, alongside interactive maps and copies of the 14 supporting technical reports. Over 5,000 people attended and Departmental officials and technical experts were on hand to help answer any questions and encourage people to respond to the consultation, whether immediately online, by completing a response form or in writing before the closing date of 27 February.
13. In all, nearly 70,000 responses were received to the consultation, and the analysis of these responses forms part of the evidence base used to inform the Secretary of State's decisions on the future development of Heathrow.

# Consultation Proposals – and Responses

## A Third Runway and Additional Terminal Facilities

### The Consultation Document Position

14. The consultation document stated that<sup>3</sup>:

- ‘The Government acknowledges the case made by BAA in 2003 that a three runway airport should be supported by additional passenger terminal facilities, with road and rail connections. A new terminal would better serve the mix of airlines at Heathrow; without it, the use of a third runway would be significantly limited by the need for aircraft to taxi across the existing northern runway’.
- ‘The Government acknowledges the rationale for a slightly longer runway (2,200m operational length) than was proposed in 2002, both for operational reasons and to facilitate a balanced use of the airport, along with associated passenger terminal facilities’.
- ‘The Government believes that ... a third runway as described could be added at Heathrow by around 2020 and enable EU air quality limits for PM<sub>10</sub> and NO<sub>2</sub> to be met without the need for further mitigation measures’.
- ‘The Government believes that a third runway could be added at Heathrow and operate at maximum capacity in 2030 with around 702,000 ATMs (air transport movements) whilst complying with the noise test in the White Paper ... It would be for the airport operator to satisfy the planning authorities that the airport with a third runway would be managed in the 2020 – 2030 period so as to ensure that the noise limit is adhered to’.

### The Evidence Base

15. The evidence from the Department’s analysis, as presented in the consultation document and supporting technical reports, can be summarised as follows:

- EU annual air quality limit values are currently being exceeded around Heathrow (and elsewhere in the UK). In 2002, for example, there were an estimated 7,336 residential properties above the annual limit value for NO<sub>2</sub>. The position is improving, mainly due to tighter emissions standards on road vehicles, and

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<sup>3</sup> *Adding Capacity at Heathrow Airport* consultation document, p114 – 115

exceedences are predicted to fall to some 22 residential properties by 2015, before taking into account any further air traffic movements or mitigation measures. (The assessment is based on methodology for air quality modelling developed especially for the purpose and subject to peer review<sup>4</sup>.)

- A third runway could be operating (in mixed mode) from around 2020 and forecasts indicate that EU air quality limits would be met; crucially, there would be no forecast exceedences of the NO<sub>2</sub> limit value of 40µg/m<sup>3</sup> at residential properties in 2020 or subsequently, even with all three runways operating at full capacity (assumed to be around 702,000 ATMs).
- Air traffic movements on a three-runway airport would need to be limited in the early years in order to keep within the 127 sq km noise contour. Estimates suggest that the airport could, in 2020, operate at around 605,000 ATMs with a 57dBA noise contour of 126.7 sq km, with further increases in ATMs over time as older, noisier aircraft are retired.
- By 2030, a three-runway Heathrow could operate at full capacity and meet the noise limits as well as the air quality limits. At that point, the area of the 57dBA noise contour is expected to be reduced to around 113 sq km and the population within that contour to be around 206,000 (compared with 120 sq km and 252,000 today).
- Improvements in public transport access are in prospect, notably enhanced services on the Piccadilly Line by 2014 and the introduction of Crossrail services by 2017. The AirTrack scheme linking Terminal 5 to the national rail network to the south and west would further strengthen rail connections to the airport. There is judged to be adequate public transport capacity to meet the likely demand from an expanded airport.
- The Impact Assessment shows that adding a third runway would generate net economic benefits of around £5bn<sup>5</sup>, even after taking account of environmental costs, including climate change.

## Consultation Evidence

16. The consultation asked questions concerning:

- Should a third runway be supported with additional terminal facilities?
- Are the environmental conditions still valid?
- Is a third runway possible within air quality limits?
- Is a third runway possible within the noise contour limit?

<sup>4</sup> Project for the Sustainable Development of Heathrow, Report of the Air Quality Technical Panels, DfT, July 2006

<sup>5</sup> The updated Impact Assessment being published alongside this decision document has revised this to £5.5bn – see paragraph 46.

17. Full coverage of the consultation responses can be found in the *Adding Capacity at Heathrow Airport: Report on Consultation Responses* produced by Detica<sup>6</sup> (the consultation responses report). Individual responses can be viewed by appointment for a period of three months following the announcement of these decisions.
18. Many respondents chose not to answer the questions directly and replied instead in general terms expressing opinions in favour of, or opposing, airport development. Longer submissions from stakeholders tended to address more of the specific questions. Whilst respondents voiced strongly held views which have been carefully considered, very little material evidence was produced by way of additional analysis to support such views.
19. The consultation did not ask whether or not respondents supported expansion – the Government's position in principle having already been set out in the ATWP. Issues raised included: the importance of expansion at Heathrow for economic growth; evidence on meeting the environmental criteria including whether the predicted improvements as a result of technology advance would materialise; whether the 57dBA contour remained an appropriate benchmark; the impacts on the local community including of noise and community disruption/destruction; and wider issues such as how expansion fitted with commitments to tackle climate change.

## Mixed Mode

### The Consultation Document Position

20. The consultation document stated that<sup>7</sup>:
  - 'The Government's view is that mixed mode operations are feasible at Heathrow and could be introduced to provide worthwhile additional capacity on the existing runways as an interim measure before any new runway could be available. Full mixed mode, building up from the current movements limit over time, could bring total movements to around 540,000 by 2015, providing up to 60,000 extra movements a year'.
  - 'Noise would be distributed differently around the airport, with some people experiencing less noise, and some more, although if full mixed mode was introduced by 2015 there would be fewer people experiencing noise at 63dBA Leq or above compared with the numbers under segregated mode in 2002'.
  - 'It would give the airport more flexibility to cater for peak demand and to recover from delays caused by, for example, adverse weather conditions'.

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6 *Adding Capacity at Heathrow Airport: Report on Consultation Responses*, p28 onwards

7 *Adding Capacity at Heathrow Airport* consultation document, p115 – 116

## The Evidence Base

21. The evidence from the Department’s analysis, as presented in the consultation document and supporting technical reports, can be summarised as follows:
- Full mixed mode could be introduced from around 2015 whilst still enabling EU air quality limits to be met around the airport; crucially, there are no forecast exceedences of the NO<sub>2</sub> limit value of 40µg/m<sup>3</sup> at residential properties in the immediate vicinity of the airport.
  - Full mixed mode in 2015 would also meet the noise test, with a 57dBA noise contour of around 125.5 sq km, but would require the practice of runway alternation to be suspended. The resulting impacts are not well captured under the standard contour measure of average noise over a 16 hour day.
  - Mixed mode operations could be introduced within the current cap of 480,000 annual movements i.e. with no extra capacity. This could be done from around 2011/2012, subject to any CAA consents on airspace changes, and would provide some resilience, in that there would be scope to flex movements across the day and react to pressure points. Benefits from delay reductions over the period 2010 to 2019 are estimated at £0.9bn, giving net economic benefits of £6.2bn for this option followed by a third runway from 2020.
  - Mixed mode with additional capacity over the period 2015 to 2019 followed by a third runway from 2020 would bring net economic benefits of £6.1bn, broadly similar to mixed mode without additional capacity. This is because the impact of just five years of additional capacity is marginal.
  - All forms of mixed mode on the existing runways would need to cease once a third runway is in operation, for both operational and safety reasons and so would only be an interim measure.

## Consultation Evidence

22. The consultation asked questions concerning:
- Is mixed mode possible within the noise limits?
  - Is mixed mode possible within the air quality limits?
  - Do you support mixed mode within the ATM cap?
  - Do you support mixed mode at certain times of day?
23. Full coverage of the consultation responses can be found in the consultation responses report<sup>8</sup>.

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<sup>8</sup> *Adding Capacity at Heathrow Airport: Report on Consultation Responses*, p46 onwards.

24. Unlike the proposal for a third runway where the Government's policy had already been clearly established in principle in the ATWP, the consultation specifically asked whether people agreed or disagreed with the introduction of mixed mode (throughout the day or limited to specific hours).
25. As mentioned above, many respondents expressed general opposition to airport expansion and did not directly address the specific questions asked including those on mixed mode. Of those who did, the following were the issues most frequently mentioned.
26. The strong majority response was one of opposition to mixed mode in any form, especially from local residents (both inside and outside the 57dBA contour), local authorities and amenity groups. The main grounds were the consequential loss of runway alternation – the practice of alternating arrivals between the two runways and thereby affording communities under the final approaches the benefit of relief from arrivals noise at predictable times of the day. This was reflected in comments about the impacts on quality of life as well as those newly affected by noise as a result of the ending of the Cranford agreement and easterly departures towards Ealing. Relatively few respondents addressed the specific questions in the consultation document about whether they believed the noise and air quality limits would be met, although the majority of those who did expressed doubts. However, as with comments on a third runway, it was difficult to identify any firm evidence to challenge the conclusions presented in the consultation document on compliance with the ATWP tests.
27. Other reasons for opposing mixed mode – although mentioned by a very small proportion of all respondents – included worries about safety, the increased number of flights (and therefore noise) and doubts as to whether the arrangement would cease once a third runway was open. Some respondents also commented on the consequential degradation of 'Continuous Descent Approach' (CDA) which is aimed at bringing aircraft down on a gradual descent to the final approach and minimising the noise impacts from more frequent changes in engine power and flaps. The consultation document had explained there would be implications for CDA on the southern runway, leading to a reduction from current CDA performance of around 80-85% down to 35-40%.
28. Support for mixed mode was mainly from aviation and business interests, both for the added resilience and reduced delay it offered and for the promise of much needed additional slots for flights before a third runway.
29. Few respondents specifically expressed views on hours of operation, but those who did cited the night-time (2300 – 0600 hours) and early morning (0600 – 0700 hours) periods as those when they felt most disturbed by aircraft noise and would most value periods of relief if mixed mode were introduced. Mixed mode limited to mornings (0600 to 1200 hours) was nevertheless still strongly opposed.

## Other Operating Procedures

### Westerly Preference

#### *The Consultation Document Position*

- 30.** The consultation document stated that<sup>9</sup>:
- ‘The Government’s provisional view is that there are no strong grounds for disturbing the current practice of westerly preference in any future scenario at Heathrow. Ending westerly preference would have some benefit in terms of reducing NO<sub>2</sub> concentrations in the area to the north east of the airport, but the issue is not critical to achieving compliance with air quality limits’.

#### *The Evidence Base*

- 31.** The evidence from the Department’s analysis, as presented in the consultation documents and supporting technical reports, can be summarised as follows:
- There are no strong grounds for disturbing the current practice of westerly preference. Adopting an easterly preference (with the Cranford agreement still in place) has some air quality benefits but they are not critical to securing compliance with EU limits; and although it would tend to reduce the size of the 57dBA noise contour (by around 4%) it would bring more people within it (4,800 with the Cranford agreement still in place, 3,500 without it).

#### *Consultation Evidence*

- 32.** The consultation asked questions concerning:
- Should westerly preference be retained?
- 33.** Full coverage of the consultation responses can be found in the consultation responses report<sup>10</sup>.
- 34.** Overall, there were relatively few responses that commented specifically on westerly preference. The great majority that did accepted or supported that the practice should be retained.

<sup>9</sup> *Adding Capacity at Heathrow Airport* consultation document, p117

<sup>10</sup> *Adding Capacity at Heathrow Airport: Report on Consultation Responses*, p62 onwards.

## Cranford Agreement

### *The Consultation Document Position*

35. The consultation document stated that<sup>11</sup>:
- ‘We believe that ending the Cranford agreement would redistribute noise more fairly around the airport when it is operating on easterlies. Our provisional view therefore is that there would be merit in ending the Cranford agreement, regardless of any other decisions that are taken’.

### *The Evidence Base*

36. The evidence from the Department’s analysis, as presented in the consultation document and supporting technical reports, can be summarised as follows:
- There is a good argument for ending the Cranford agreement, even if it was not automatically removed under mixed mode. To do so would redistribute noise more fairly around the airport and remove around 10,500 people from the 57dBA noise contour, albeit at the expense of exposing smaller numbers (3,300) to higher levels of noise.
  - Air quality impacts are modest and, like westerly preference, not critical to securing compliance with EU limits. If runway alternation is retained on the existing runways, this would also have the benefit of providing periods of respite during the day for all areas affected on both westerly and easterly operations.

### *Consultation Evidence*

37. The consultation document asked questions concerning:
- Should the Cranford agreement be ended?
38. Full coverage of the consultation responses can be found in the consultation responses report<sup>12</sup>.
39. There were a range of views on whether the Cranford agreement should be ended although many respondents did not comment specifically. Views for and against tended to reflect the fact that ending or continuing the practice had particular impacts or benefits for particular groups of residents around the airport.

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11 *Adding Capacity at Heathrow Airport* consultation document, p117

12 *Adding Capacity at Heathrow Airport: Report on Consultation Responses*, p65 onwards.

## **Night Time Rotation of Westerly and Easterly Preference and Runway Alternation for Arrivals in the Early Morning (0600 to 0700 hours)**

### *The Consultation Document Position*

**40.** The consultation document stated that<sup>13</sup>:

- ‘The practice of rotating westerly and easterly preference at night since 1999 has been monitored. The Government believes that it has been beneficial in distributing arrivals noise more fairly around the airport, and should be maintained’.
- ‘Runway alternation for arrivals was extended to the early morning period in 1999 on a trial basis ... the Government believes that, on the basis of the evidence, it has been beneficial in sharing the noise burden around the airport. The Government therefore believes that this should be continued on a permanent basis’.

### *The Evidence Base*

**41.** The evidence from the Department’s analysis, as presented in the consultation document and supporting technical reports, can be summarised as follows:

- On the basis of analysis of data, night time rotation (as between easterly and westerly preference) since 1999 has been beneficial in distributing arrivals noise more fairly around the airport – with typically nearly 20% fewer westerly arrivals.
- Analysis of early morning runway alternation (between 0600 and 0700 hours) – on trial since 1999 – suggests that this has extended some of the benefits of alternation to the early morning period and has been beneficial in sharing the noise burden around the airport.

### *Consultation Evidence*

**42.** The consultation document asked questions concerning:

- Should night time rotation of westerly and easterly preference and runway alternation for arrivals in the early morning (0600 to 0700 hours) be retained?

**43.** Full coverage of the consultation responses can be found in the consultation responses report<sup>14</sup>.

**44.** On night time rotation of westerly and easterly preference, of those respondents who commented specifically, the great majority supported the case put forward in the consultation document although a small number questioned the benefits.

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<sup>13</sup> *Adding Capacity at Heathrow Airport* consultation document, p118

<sup>14</sup> *Adding Capacity at Heathrow Airport: Report on Consultation Responses*, p69 onwards.

45. On runway alternation in the early morning, of those respondents who commented specifically the great majority supported the retention of this practice, agreeing that it helped to share the noise burden more fairly around the airport although some were concerned it was not operated as fully as it could be.

# Additional Evidence

## Impact Assessment

46. The consultation document contained as supporting evidence a draft Impact Assessment that analysed the costs and benefits of various development options at Heathrow. This found that even after accounting for the costs of climate change, full development of a three-runway Heathrow would bring benefits of between £4.8bn and £5.8bn. The Department committed itself to updating the Impact Assessment, the final version of which is published alongside these decisions. This shows slightly higher figures of between £5.5bn and £6.2bn if potential capacity were fully realised; and a positive economic case with reduced capacity at around 605,000 ATMs.

## Equalities Impact Assessment

47. As part of updating the Impact Assessment, an Equalities Impact Assessment (EqIA) was carried out, to investigate whether development at Heathrow might differentially impact upon equality priority groups. Following an initial screening exercise, a separate consultation exercise was conducted between September and November 2008 on these potential impacts on equality priority groups and this informed the preparation of a full EqIA.
48. This assessment focussed on potential noise, air quality and economic impacts. It found no evidence of any direct discrimination towards any equality group with reference to the main objectives and expected outcomes of the policy options. But it considered that age, disability, gender, race and low income equality priority groups could be differentially affected to varying degrees, both positively and negatively, by airport development. The extent of potential exposure would also vary according to the different airport development options.

49. The Secretary of State noted these findings and the range of responses to the EqIA consultation. He noted that it was difficult at this stage to identify many firm mitigation measures that could apply to only equality priority groups and not the wider communities in general around Heathrow. He takes the view that the range of potential impacts and possible measures to mitigate them should be subject to further investigation and scrutiny as part of any future planning process. He expects the airport operator, as part of any preparations for a future planning application, to work in consultation with other key stakeholders around the airport (for example local planning authorities and equality representative groups) to give further consideration to these issues and any measures that might be available to mitigate some of the key noise, air quality and economic impacts.
50. The Secretary of State has nevertheless particularly noted the strong views that came across both during the main consultation and the EqIA consultation about the extent to which noise affects people around Heathrow, including the impact on equality groups which might be more sensitive to noise. This is discussed further below.

# Decisions

## A Third Runway and Additional Terminal Facilities

### Policy Decisions

- Whether, in the light of all the available evidence, to agree that the conditions laid down in the ATWP have been satisfied in relation to the proposed third runway;
  - Whether to confirm support for adding a third runway (slightly longer than proposed in 2002) and with associated passenger terminal facilities, as set out in the consultation document; and
  - What further conditions, if any, should apply in respect of a future planning application by the airport operator.
51. On the matter of a third runway, the consultation drew a number of repeated comments and criticisms which the Secretary of State considered carefully.
52. Many opponents of expansion expressed doubts about the ability to meet the air quality limits but little detailed argument was produced to question the Department's technical assessment. Some suggested that more sensitivity tests should have been carried out. Further sensitivities have in practice been explored, some of them as a routine part of updating the Impact Assessment. It is in the nature of the exercise that the Department has relied on modelling and projections of emissions into the future, based on a series of assumptions regarded as realistic and representative. These assumptions would be tested further as part of any future planning application.
53. The Secretary of State also noted that the Department's modelling had shown that, even on conservative assumptions, the progressive reduction in emissions under current and planned EU vehicle standards should ensure that the UK would be compliant around Heathrow by 2020. For example, no NO<sub>2</sub> exceedences were identified at residential properties in 2020 even if a third runway were operating fully at around 702,000 ATMs. In practice, however, it is expected that ATMs will need to be constrained to around 605,000 ATMs in order to ensure compliance with the noise contour test. On this basis, the Secretary of State is satisfied that the evidence presented in the consultation document and the assumptions on which it is based, remain sound. In addition, latest Euro standards for NO<sub>x</sub> for new vehicles are significantly tighter than was assumed at the time of the consultation, further reducing any risk of exceedences.

54. The Secretary of State noted critical views on the Government's decision to continue to use the 57dBA noise contour as the benchmark for assessing noise impacts at Heathrow, despite the fact that the 'ANASE' research project commissioned by the Department had concluded that *'there is no identifiable threshold at which noise becomes a serious problem'*. The consultation document itself explained in clear terms why the Department had done this, noting that there was *'no evidence in ANASE for increasing or reducing the 57dBA limit'*, and that the research *'did not give us the robust figures on which it would be safe to change policy'*<sup>15</sup>.
55. Whilst the Secretary of State noted the opinions expressed in some consultation responses that the basis for the noise condition was no longer valid, he also noted that sensitivity analysis demonstrated that even if the 54dBA contour were adopted as the critical test instead of 57dBA, the size of the contour would be no larger in future for a third runway than it was in 2002. On this basis, the Secretary of State is satisfied that the test specified in the ATWP remains appropriate and that the analysis of noise impacts at Heathrow set out in the consultation document is robust.
56. On surface access, some questioned the absence of specific proposals particularly to address road congestion. The Department is clear that a detailed surface access strategy is not a prerequisite for a policy decision and would be a matter for the airport operator as part of a planning application in due course. The Department's analysis focused at a higher level on the capacity of the rail system to carry the extra airport users. Improvements are already in prospect with enhanced Piccadilly Line services from 2014 and Crossrail from 2017. The Secretary of State is satisfied with the Department's analysis that by 2020 there should be more than enough public transport capacity to meet peak hour demand for Heathrow. He welcomes the collaborative approach being followed by BAA in developing the AirTrack project and encourages all interested parties to participate in the consultation and the Transport and Works Act process, with a view to seeing that scheme implemented ahead of a third runway.
57. Looking to the future, the Department will work with the airport operator and Network Rail to consider schemes that provide better connections to the Great Western main line whilst maximising the effectiveness of scarce railway paths. The Department has also set up a new company, *High Speed Two (HS2) Ltd*, to advise Ministers on the feasibility and credibility of plans for a new line with specific route options and financing proposals. This work will include consideration of options for a new Heathrow International interchange station on the Great Western line, providing a direct 4-way interchange between the airport, the new north-south line, existing Great Western rail services and Crossrail into central London.
58. More generally, it will be for the airport operator to develop a surface access strategy for an expanded airport as part of a comprehensive transport assessment ahead of any planning application. This will include working with the Highways Agency and local authorities, as necessary, to identify any demand management measures needed to address road traffic congestion around the airport.

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15 *Adding Capacity at Heathrow Airport* consultation document, p 46 – 48

59. The Secretary of State has signed the Impact Assessment which is published alongside this decision document. The forecasts of passenger demand used in the Impact Assessment are those used in the latest *UK Air Passenger Demand and CO<sub>2</sub> Forecasts 2009*. Forecasting out to 2030 necessarily involves conjecture about future passenger demand and the likely composition of the aircraft fleet, including new generations of aircraft not yet in service. The Secretary of State has, however, noted that historically, the Department's forecasts have proved reliable, or even conservative. In the light of the updated Impact Assessment and forecasts, and the range of sensitivity analyses undertaken, he is satisfied that the social and economic case for a third runway remains robust.
60. Taking account of these points and having considered the range of evidence described in this decision document, the Secretary of State is satisfied that the conditions set out in *The Future of Air Transport* White Paper can be met and therefore confirms the Government's policy support for a third runway. He accepts that the provision of additional passenger terminal facilities and a slightly longer runway, as set out in the consultation document, are the best way to maximise the efficiency of the larger airport. He now expects the airport operator at Heathrow to carefully consider his decisions. If it decides to pursue a new runway then it will need to prepare relevant plans and obtain any necessary planning permissions and other consents.
61. The Secretary of State is clear, however, that support for any expansion at Heathrow airport must be accompanied by a firm commitment to ensure that the strict local environmental conditions that have been set will not be exceeded. This has always been the Government's aim and it now intends to provide clear assurance that this outcome will be delivered.
62. There will be a legally binding process to ensure that, if planning permission is given for expansion above the present planning cap of 480,000 ATMs, additional flights will be allowed only if regular independent assessments confirm that this progressive expansion can be done without breaching noise and air quality limits.
63. The Secretary of State intends to consult on the detail of the process, but currently envisages that it will have the following elements. First, it will be a precondition for releasing new capacity that air quality and noise limits are already being met. Air quality limits are already statutory. We will also ensure the noise limit is given legal force. Second, as recommended by Sir Joseph Pilling, the Civil Aviation Authority is to be given a new general environmental duty, guidance on which will be provided by the Secretary of State for Transport, in agreement with the Secretary of State for Environment, Food and Rural Affairs and the Secretary of State for Energy and Climate Change, setting out legal requirements and such other requirements as Ministers see necessary. Third, once the precondition was met, the CAA would be responsible for making decisions on the release of new capacity, taking account of their duties and associated guidance.

64. As regards the question of enforcement, the CAA has world-renowned experience, knowledge and authority on aircraft noise monitoring and modelling and as such would report to the Secretary of State for Transport and the Secretary of State for Environment, Food and Rural Affairs any breach of the noise limits. On air quality, the Environment Agency would be responsible for overseeing monitoring and analysing air quality data. Because background emissions, emissions from surface transport, both airport-related and non-airport-related, and aviation emissions are contributory factors to air quality around Heathrow, the Agency would report any breaches to both Secretaries of State. The CAA, in respect of noise, and the Environment Agency, in respect of air quality, will have the necessary powers to ensure that relevant parties take their share of the remedial action needed to comply with the respective legal limits. The Agency would take account of its duties and relevant guidance provided by the Secretary of State for Environment, Food and Rural Affairs, in agreement with the Secretary of State for Transport.
65. Irrespective of development of Heathrow airport, action needs to be taken in the short term to meet the NO<sub>2</sub> limit values around Heathrow and in other major urban areas around the UK by the relevant timescales provided for in the EU Directive. Generally, the main cause of the compliance problem is surface transport but around Heathrow the airport is also a significant contributor. The UK will need to provide to the European Commission by 2010 evidence that compliance will be achieved across the country by 2015 at the latest. This presents a significant challenge but the Secretary of State is committed to supporting the actions necessary to achieve it.
66. The Secretary of State intends that additional capacity at the airport should, following consultation, be subject to a new 'green slot' approach, to incentivise the use at Heathrow of the most modern aircraft, with further benefits for air quality and noise.
67. In addition, the Secretary of State considers it would be prudent initially to constrain additional capacity to a maximum of 605,000 ATMs, which the modelling suggests would satisfy both the noise and air quality tests in 2020. He proposes that there should be a review in 2020 which would take account of developments such as the operation of the compliance mechanism for noise and air quality detailed above, progress with public transport access, the levels of resilience being achieved at the airport and advice from the Climate Change Committee on progress towards the UK's carbon reduction targets. Any increase beyond 605,000 ATMs should depend on the outcome of that review and would be subject to applicable planning requirements at that time.
68. In confirming support for a third runway and additional terminal facilities, the Secretary of State also recognises that such a development would particularly impact two categories of local residents. First, those living just outside the perimeter of an expanded airport and whose properties would not either be compulsorily purchased or qualify under existing compensation schemes for noise insulation but would be significantly affected by the new runway and terminal building – including during construction. Second, those newly affected by noise from a third runway, including schools, to which the EqlA drew particular attention. The Secretary of

State is asking the airport operator, in reviewing its existing insulation and mitigation schemes, to consider extending its noise insulation schemes to all community buildings and households in the new 57dBA contour who will experience an increase in noise of 3dBA or more; and to give particular consideration to addressing the impacts on those households who find themselves located closest to the new airport boundary.

## Mixed Mode

### *Policy Decisions*

- Whether, in the light of all the available evidence, to agree that the conditions laid down in the White Paper for introducing mixed mode have been satisfied;
  - Whether, on those and other relevant considerations which were the subject of the consultation, to agree to give explicit policy support to its introduction, either within existing traffic levels; or with additional capacity; and if so –
  - What conditions if any to attach to these decisions recognising that any development proposals would be for the airport operator to bring forward and secure such planning and other approvals as may be necessary.
69. On the matter of mixed mode, and for the reasons outlined above in discussing the evidence in relation to a third runway and additional terminal facilities, the Secretary of State was satisfied that mixed mode, both within the present cap of 480,000 ATMs and up to 540,000 ATMs could be implemented from around 2011/2012 and 2015 respectively whilst meeting the environmental conditions set. Mixed mode would require the practice of runway alternation to be suspended, resulting in communities under the final approaches being subject to perpetual noise throughout the day – unless mixed mode hours were restricted. The Secretary of State noted that this was an important issue highlighted in the consultation responses. He also considered the net benefits – as set out in the Impact Assessment – of mixed mode.
70. Taking all these factors into account, the Secretary of State has concluded, on balance, that the benefits of mixed mode do not outweigh the impacts on those who would be adversely affected by its implementation. He has therefore decided not to support the introduction of mixed mode at Heathrow as an interim measure pending construction of a third runway. He notes that the effect of this will be not only to preserve the benefits to local communities of runway alternation, but also that, for those living under the current flight paths, the noise climate will improve over time with no increase in the number of flights and a progressive reduction in the level of noise as the older, noisier aircraft are retired from service.
71. Equally, the Secretary of State accepts that without additional capacity, Heathrow will continue to face serious challenges in terms of resilience and reliability. He also notes that a key objective of the current review of the regulatory framework for airports is to encourage appropriate and timely investment in additional capacity to help deliver growth. The airport operator may therefore wish to consider the submission of a planning application at the earliest opportunity, with a view to a

third runway becoming available sooner rather than later within the broad timeframe contemplated by the ATWP (2015 to 2020), provided that its use is consistent with the environmental constraints. It would be for the airport operator to demonstrate in its planning application that the environmental limits could be met. The use of additional capacity would be controlled as described above through a legally binding process based on independent assessment.

72. In the meantime, the Secretary of State encourages the airport operator to work with NATS, the Civil Aviation Authority and airlines to improve existing airport and airspace procedures and to develop new ones to deal with delays quickly and efficiently as they develop. The results of work commissioned by the Secretary of State's predecessor from the Civil Aviation Authority on runway resilience, which are expected to be finalised shortly, could help to inform this process.

## Other Operating Procedures

### Westerly Preference

#### *Policy Decision*

- Whether to confirm the Government's provisional views in the consultation document that westerly preference should be retained.

73. On the matter of westerly preference, the Secretary of State noted the case put forward in the consultation document for retention of this practice. He also took into account that no evidence was presented to the contrary during the consultation and that the overwhelming majority of responses specifically addressing this question supported the continuation of westerly preference. The Secretary of State has therefore decided to confirm the provisional view in the consultation document that westerly preference should be retained.

### Cranford Agreement

#### *Policy Decision*

- Whether to confirm the Government's provisional view in the consultation document that the Cranford agreement should be ended.

74. On the matter of the Cranford agreement, the Secretary of State has considered the responses to the consultation in the light of the analysis in the consultation document. Ending the Cranford agreement would redistribute noise more fairly around the airport and remove around 10,500 people from the 57dBA contour, albeit at the expense of exposing smaller numbers (around 3,300) to higher levels of noise. In the light of the Secretary of State's decision not to support the implementation of mixed mode and to retain runway alternation, ending the Cranford agreement would also have the benefit of providing periods of respite during the day for all areas affected on both westerly and easterly operations.

75. The Secretary of State has therefore decided in the interests of equity to confirm the provisional view set out in the consultation document. Therefore the operating practice which implements the Cranford agreement should end as soon as practicably possible. He notes that this would also enable runway alternation to be introduced when the airport is operating on easterlies, giving affected communities predictable periods of relief from airport noise.

### **Night Time Rotation of Westerly and Easterly Preference and Runway Alternation for Arrivals in the Early Morning (0600 to 0700 hours)**

#### *Policy Decision*

- Whether to confirm the Government's provisional views in the consultation document that the use of early morning runway alternation should be continued and that the practice of night-time rotation should be confirmed.
76. On the matters of night time rotation of westerly and easterly preference and runway alternation for arrivals in the early morning, the Secretary of State noted the case put forward in the consultation document for the retention of both practices. He also took into account that no evidence was presented to the contrary during the consultation and that the overwhelming majority of responses specifically addressing this question supported the continuation of both practices. The Secretary of State has therefore decided to confirm the view set out in the consultation document that night time rotation of westerly and easterly preference and runway alternation for arrivals in the early morning should both be retained – in the case of the latter, so far as it is not precluded by the need for air traffic controllers to authorise the use of both runways for arrivals in this period to reduce delays to arriving aircraft.

# Annex A – The Evidence Base

The following evidence helped to inform the above decisions on the future development of Heathrow airport:

- The Future of Air Transport White Paper, December 2003
- Air Transport White Paper Progress Report, DfT December 2006
- UK Air Passenger Demand and CO<sub>2</sub> Forecasts, DfT, November 2007
- UK Air Passenger Demand and CO<sub>2</sub> Forecasts, DfT January 2008
- Heathrow Impact Assessment (Annex B to the November 2007 consultation)
- Adding Capacity at Heathrow Airport Consultation, DfT, November 2007
- Adding Capacity at Heathrow Airport Consultation Responses
- Adding Capacity at Heathrow Airport: Report on Consultation Responses, Detica, December 2008
- Equalities Impact Assessment Screening Report, Scott Wilson, September 2008
- Equalities Impact Assessment Consultation, DfT & Scott Wilson, September 2008
- Equalities Impact Assessment Report, Scott Wilson, January 2009
- Equalities Impact Assessment Consultation Responses
- Monetisation of Air Quality Impacts for Future Heathrow Scenarios, AEA, November 2008
- Adding Capacity at Heathrow Airport R3 and Mixed Mode Costs, Scott Wilson, December 2008
- Adding Capacity at Heathrow 2008 Historic Environment Appraisal, Scott Wilson, October 2008

- Adding Capacity at Heathrow 2008 Biodiversity Appraisal, Scott Wilson, October 2008
- Adding Capacity at Heathrow 2008 Landscape Appraisal, Scott Wilson, October 2008
- Heathrow Airport – Runway 3 – Study, NATS, November 2007
- Heathrow Airport – Runway 3 – Capacity, NATS, November 2007
- Heathrow Airport – Runway 3 – Summary of 27 Options Analysis, NATS, November 2007
- Heathrow Mixed Mode – Concept of Operations, NATS, November 2007
- Heathrow Mixed Mode – Capacity, NATS, November 2007
- Heathrow Mixed Mode – Scenarios, NATS, November 2007
- Revised Emissions Methodology for Heathrow Base Year 2002, AEA, November 2007
- Emissions Methodology for Future LHR Scenarios, AEA, November 2007
- Heathrow Airport Emission Summaries, AEA, November 2007
- Population Exposure to Air Pollution, Atkins, November 2007
- Demonstrating Confidence in the PSDH Air Quality Work, Atkins, November 2007
- PSDH Surface Access Report, BAA, November 2007
- Air Quality Studies for Heathrow: Base Case, Segregated Mode, Mixed Mode and Third Runway Scenarios, CERC, November 2007
- ERCD Report 0705 Revised Future Aircraft Noise Exposure Estimates for Heathrow Airport, CAA, November 2007
- PSDH Report of the Airport Air Quality Technical Panels, DfT, July 2006