



A Second Runway for Gatwick

Airports Commission Final Report – Areas of Concern

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YOUR LONDON AIRPORT
Gatwick

Table of Contents

Executive Summary	2
1: The Airports Commission's conclusions	9
2: "There is a need for new capacity"	10
3: "Heathrow can provide that capacity more easily and quickly"	11
4: "Expanding Heathrow provides greater benefits"	16
5: "Measures to limit noise impacts would make Heathrow expansion more acceptable"	21
6: "Measures to ensure acceptable air quality would make Heathrow expansion more acceptable"	28
7: Deliverability	34
8: Gaps and omissions	40
9: A fundamentally different proposition?	45
10: The overall judgement made by the Commission in reaching its recommendation	47

Executive Summary

- a) Now that the Airports Commission has reported, the Government is forming its own view on whether the next runway in the South East of England should be the Heathrow Airport Limited North West Runway Scheme (“Heathrow NWR”), the Heathrow Hub Limited Extended Northern Runway Scheme (“Heathrow ENR”) or the Gatwick Airport Limited Second Runway Scheme (“Gatwick R2”).
- b) The judgements in the Airport Commission’s Final Report have already been subject to intense public debate and analysis. This will be repeated – with even more vigour - when the Government reaches its decision on what should now happen.
- c) Given the many unsuccessful attempts to find an acceptable means to provide more runway capacity in the South East in the past, the UK needs a proposal that has a high chance of securing planning consent and actually being built. A decision to proceed must be soundly based, robust and fair. It needs to strike a balance reflecting the national interest between inevitably conflicting considerations; having regard to key policies on noise, air quality, economic growth and competition, as well as to the implications for the public purse.
- d) Yet key elements of the Commission’s report and evidence base, although comprehensive in many respects, suffer from omissions or superficial analysis in some critical areas and are not sufficiently thorough in a number of important respects, nor are the Commission’s assessments or their presentation in the final report always balanced and fair. For example:
 - in assessing **the nature and timing of the need for additional capacity**, the Commission has based its strategic argument on a conclusion that Heathrow delivers more long haul connectivity more quickly at the UK level, despite this assertion not being supported by its own forecasts, which show that such connectivity is virtually identical for all schemes, that overall origin and destination (O&D) demand at the UK level is the same for all schemes, and despite the Commission stating that Gatwick R2 can be delivered sooner than either of the Heathrow schemes;
 - on the specific question of **regional connectivity**, the Commission’s own data shows that direct regional connectivity would be lower under the Heathrow options than would be the case with Gatwick R2. Whilst as regards domestic connectivity for the Nations and regions, the Commission’s forecasts demonstrate that an expanded Heathrow will serve only 4 domestic routes compared to 7 today. These are points the Commission has chosen to ignore when summarising the strategic rationale for its recommendation;
 - in considering **the economic benefits to the UK** of the shortlisted schemes, the Commission has given undue prominence to the supposed advantages of Heathrow, derived from a questionable non-standard methodology for the assessment of wider economic benefits, upon which its own expert advisors have urged caution. At the same time, the Commission places little emphasis on its own economic assessment using recognised HM Treasury methodology which indicates that Gatwick R2 and the Heathrow schemes deliver comparable benefits and that Gatwick would deliver greater benefits those accruing to non-UK economies are stripped out of the analysis;
 - in evaluating the **noise impacts** of the schemes, the Commission has proposed measures which it asserts will render the Heathrow NWR scheme acceptable to local communities, but has avoided meaningful assessment of those communities newly affected by noise, and has applied a flawed assessment methodology in seeking to justify its claim that a three runway Heathrow will have a lower noise impact than a two runway Heathrow today. The Commission largely ignores its own evidence that

Gatwick's noise impacts are, and would remain, an order of magnitude lower than Heathrow's – a key point in the light of Government policy on noise;

- in evaluating the **air quality** impacts of the schemes, where all evidence including updated forecasts from DEFRA points to continued breach of air quality legal limits in the Heathrow area for the foreseeable future, the Commission has adopted a flawed legal approach to the assessment and reached the erroneous conclusions that it would be lawful for Heathrow NWR to be constructed and operated, rather than recommend the Gatwick scheme which can lawfully be delivered and which would have clearly the much less adverse impact upon human health;
 - on the relative level of **deliverability risk** of the schemes, the Commission portrays the risks facing all three schemes as being broadly comparable, despite significant evidence to the contrary being revealed by transparent and impartial assessment of the relative political, planning, environmental, cost, programme and financing risks of the schemes. Perhaps unsurprisingly, the Commission has undertaken no such detailed comparative assessment.
- e) Review of these elements alone highlights multiple material risks that Heathrow cannot be delivered, and calls into question whether Heathrow is in fact the most favourable option for the UK. We identify below the key areas where we see a need for the Airport Commission's work to be critically reviewed and corrected.

Traffic, competition and costs

- f) At aggregate level, the Commission's traffic case shows that Heathrow and Gatwick produce virtually the same capacity and O&D traffic in the UK airport system as a whole, whatever the category (e.g. total, O&D passengers, business passengers, foreign visitors). Nonetheless, the Commission's traffic case is overly optimistic about the rate of growth at Heathrow (largely achieved by high levels of transfer passengers, and by forecasting that Heathrow would capture a significant amount of traffic already using other London and UK airports), and highly pessimistic about the rate of growth at Gatwick. The Commission has:
- when assessing what best meets the Government's objectives, placed a great deal of emphasis on just 2 additional long haul routes which it forecasts would be delivered to the UK system by Heathrow NWR, as opposed to promoting air connectivity from the UK as a whole;
 - not correctly analysed the capacity likely to be provided by each scheme, the likely opening date of each scheme, and the benefit of securing capacity as early as possible before 2030. We provided information to the Commission from leading industry experts on the constraints on Heathrow's capacity due to the complexity of the scheme proposed, as well as from the significant environmental mitigation measures likely to be required. The Commission did not undertake such analysis;
 - not fully considered the resilience, airline and airport competition implications of concentrating airport capacity at a single location, as against the benefits of further developing a network of competing airports, while having regard to Government policy of supporting competition as set out in the Aviation Policy Framework.
- g) The costs of the Heathrow schemes are multiples of those of Gatwick R2. This is the primary reason why airport charges at Gatwick would be at very much lower levels than either Heathrow today or an expanded Heathrow. The Commission assesses that Heathrow's charges will go up from £20 to £31 per passenger and Gatwick's charges will go up from £9 to £20. This is despite Gatwick's offer to enter into binding obligations to cap charges to less than

£15. Incredibly, the Commission baldly states that this offer “did not influence its economic assessment”, and by inference was disregarded. No explanation for this has been given.

- h) The Commission’s economic experts highlight the need to take these costs into account in the traffic forecasts, which will reduce expected traffic relatively more at Heathrow because of its higher charges. The experts point out that “this has not happened in the appraisal; aero charges are not passed through to air travellers. This assumption that aero charges can be passed through ‘with no effects on demand and net user benefits’ seems to us a very strong assumption”. The Commission does not seem to have addressed this problem.
- i) The Commission also excludes the cost of surface access infrastructure for its evaluation of traffic demand as it deems these costs as an issue to be addressed in negotiations between scheme promoters and the Government. This omission weighs very heavily in favour of Heathrow as its surface access infrastructure costs of around £5 billion are left out of account. Gatwick’s surface access costs are some £800 million, thus in effect £4.2 billion of costs which should have been included in the balance as weighing in Gatwick’s favour were simply left out of account. It seems extraordinary to leave to the side such an issue with important implications for users and / or taxpayers.

Economic impact

- j) The Commission’s own economic analysis, following Treasury guidelines, shows that the economic value of each scheme is virtually the same. This is despite flaws which disadvantage Gatwick in some elements of its appraisal. Gatwick is concerned that the Commission has:
 - placed far too much emphasis on, and widely quotes, the conclusions of an analysis of wider economic benefits that the Commission obtained from PwC, despite the Commission’s own expert panel urging caution about attaching significant weight to the absolute or relative results of that analysis and their stating that care is required in assessing its “robustness and reliability”;
 - failed to correct flaws in the PwC methodology which acknowledges that a substantial share of the additional demand at Heathrow is forecast be redirected from existing UK airports, but does not adjust for the resultant reduction in passenger numbers and expenditure at these other airports;
 - failed to correct unrealistic assumptions made by PwC as regards passenger mix and spending patterns at Heathrow and Gatwick.
 - ignored its own traffic analysis which demonstrates that the number of domestic routes into Heathrow from the Nations and Regions of the UK actually falls to just 4 routes, compared to 7 today, under an expanded Heathrow thus making domestic air connectivity worse rather than better (as recently pointed out by the Mayor of London);
 - not tested which scheme aligns best with other Government economic objectives by failing to assess the geographical spread of economic benefits both regionally and nationally; and
 - overstated the national economic value of the Heathrow schemes – which tend to concentrate the provision of airport capacity – compared to Gatwick R2, which would tend to disperse that provision across the UK.

Noise

- k) Noise will be the most important environmental issue for the thousands of people impacted by runway development in the South East.
- l) It is therefore important that the Commission correctly found that Gatwick R2 would have noise impacts that are only a fraction of those of the Heathrow schemes; and that Gatwick R2 is the option that provides the best fit with Government policy to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise. Gatwick is concerned that:
- the Commission has wrongly placed most emphasis on a comparison between noise at Heathrow with three runways and today's level of noise, instead of applying recognised best practice (as it said it would in its own guidelines) by comparing the noise implications of a two runway Heathrow with a three runway Heathrow at a future point in time;
 - the Commission has given no weight to the very substantial number of people who would be newly affected by noise around Heathrow;
 - these fundamental errors, together with other errors and omissions in the Commission's approach to noise, have:
 - resulted in a set of noise assessments which are not a reliable basis for policy decisions;
 - led the Commission to place undue emphasis on the conclusion that Heathrow NWR would lead to Heathrow being a better neighbour than it is today; and
 - led the Commission to attach insufficient weight to noise issues in general, and to the clear advantages of Gatwick R2 in this respect.

Air quality

- m) Air quality has to be a key determinant of the location of any new runway. It is a vital consideration in view of its impact on human health, and it is an essential requirement that air quality does not breach legally binding limits. The Commission's approach to air quality does not withstand scrutiny, since:
- its conclusions are based on an incorrect interpretation of the law;
 - its analysis is incomplete and inconsistent in several material ways; and
 - it relies upon an undrafted and unknown Air Quality Plan that cannot at present be assessed.
- n) The Commission's analysis confirms Gatwick's assessment that Gatwick R2 can be delivered without exceeding the legally binding air quality Limit Values, whereas Heathrow expansion is expected to breach these Limit Values, calling into question whether Heathrow expansion can be lawfully taken forward at present.

Deliverability

- o) The Commission confirms that there are no overriding environmental or other reasons to believe Gatwick R2 could not be delivered by 2025, as proposed by Gatwick.
- p) The considerable risks facing Heathrow have not been robustly considered. The Commission has outlined a massive quantum of work proposed for Heathrow NWR that includes on-going CAPEX works, on-going maintenance works, the newly planned Heathrow NWR works, and the related surface access works. When evaluated holistically, at its peak period Heathrow NWR proposes to perform over £6.5 billion of construction works on an annual basis for 3 consecutive years, within the complex Heathrow NWR site, while maintaining existing airport operations. The quantum of work in other years is also considerable at over £2.2 billion a year on average. Detailed studies by leading construction experts show clearly that this amount of construction work is unlikely to be feasible, maintainable, or deliverable. Gatwick is concerned that the Commission has:
- not investigated thoroughly whether the quantum of work proposed for Heathrow NWR is deliverable by the 2026 date assumed by the Commission and, if not, how much longer it might realistically take to deliver.
 - carried out no analysis:
 - (a) to understand whether the sheer scale of construction and other environmental impacts associated with Heathrow NWR are such that they pose serious impediments to the likelihood of obtaining development consent (even if they are supported by an NPS); or
 - (b) to evaluate whether, even if consent is given, the risks to cost and programme are acceptable;
 - has not considered the materially different and project-specific scale of risks to delivery and the consequent implications for programme, cost and the risk to delivery of each of the three schemes.
- q) The overall balance of benefits to disbenefits taking account of the above issues leads clearly to the conclusion that Gatwick R2 represents the best option.

Gaps and Omissions

- r) The Commission has not considered the substantial differences in commercial terms and risk allocation between the three schemes. There is therefore an inadequate basis in the Commission's work to assess financeability, as risk quantification and risk allocation are fundamental to such an assessment. This is a central issue for passengers and taxpayers which the Commission has decided not to fully address.
- s) Gatwick proposes a long-term framework for investment in the airport and the extent to which this proposal significantly alters the assessment of the commercial advantages of Gatwick R2 relative to Heathrow NWR. The binding undertakings offered by Gatwick would commit Gatwick to delivering a new runway and appropriate infrastructure by 2025, while meeting appropriate service standards and setting airport charges within defined limits. In return, Gatwick would require long-term certainty that this framework will not be altered. Gatwick's offer to enter into binding obligations would provide certainty that Gatwick will deliver the specified project on schedule in 2025 provided development consent is secured by 2020 and would guarantee service quality going forward.
- t) By establishing such long-term certainty, Gatwick is then able to assume the majority of the risk associated with a new runway development, which includes long-term traffic, market price,

and construction risks. We note that Gatwick's proposed binding undertakings would not have been offered if Gatwick and its shareholders accepted the Commission's highly pessimistic assumptions about traffic build-up at Gatwick with the benefit of significant new capacity within a highly constrained London airport system.

- u) Under Heathrow's RAB based approach, users and/or taxpayers would bear a very significant proportion of key project risks, as well as long-term traffic risk. The respective proposals must be reviewed side by side in order to understand the fundamental differences on risk allocation between the Heathrow and Gatwick schemes. The Commission has not done this.

A fundamentally different proposition?

- v) A new point that has emerged in the Commission's Final Report is their statement that the present Heathrow NWR option is a different scheme from the one that the coalition Government ruled out previously. In fact, although the present Heathrow proposals are plainly different from the previous ones, they are no better, especially in terms of environmental and sustainability impacts. The new scheme would in particular:
 - have a longer runway than the previous scheme and handle many more aircraft movements and passengers with much larger aircraft types;
 - impact 30,000 more people within the 57dBA noise contour than the previous scheme;
 - involve massively greater disruption to communities and transport networks;
 - cost some £8 to £9 billion more than the previous scheme.
- w) Most important of all, when the Labour Government in 2009 supported a third runway at Heathrow, it expected compliance with the Air Quality Limit Values before 2020. We now know that DEFRA does not expect compliance to be achieved until after 2030 even with two runways. Despite this, the Commission suggests safeguards that should be imposed to assure compliance for Heathrow NWR that are weaker than those that would have been imposed on the previous scheme. Moreover, the Commission's definition of compliance is wrong in law. Continued exceedences in the Heathrow area so long as concentrations are greater in the Marylebone Road will not achieve compliance with the Directive.
- x) Accordingly, it is clear that, in all material respects, the impacts and complexity of the current scheme are clearly significantly greater than those of the scheme vetoed by the Coalition Government.

The overall judgement made by the Commission in reaching its recommendation

- y) In making major policy and planning decisions, it is almost always necessary to strike a balance between the positive and negative effects of any given proposal, and in a case such as airport expansion to weigh these effects in relation to each of the shortlisted schemes. The Commission has concluded that:
- the proposal for Heathrow NWR, in combination with a package of measure to reduce its environmental and community impacts, presents the strongest case. However, the Commission has not set out reasoned or transparent justifications for reaching this judgment: in particular, it has not made clear the approach it has taken to striking the balance between economic benefits and adverse environmental impacts. As a result, the Commission's rationale is either opaque or completely absent. The Government's rationale should be transparent, clearly stated and should accompany its decision;
 - its assessment of the greater economic benefits associated with Heathrow clearly outweigh Heathrow's adverse environmental effects, without any clear, rational explanation as to how it balanced the various key factors in reaching this conclusion. The Commission also concludes that a package of measures and conditions is necessary to address Heathrow's significant environmental and community impacts, and implies that these conditions will be sufficient to meet the concerns of local communities. But no explanation at all is provided as to why this is the case.
- z) Furthermore, it seems clear that, in striking an overall balance, the Commission's evaluation was undertaken without taking any account of the economic, operational and financing impacts of the series of necessary measures and conditions it proposed on pages 10 and 11 of its Final Report. In order for the conclusions reached to be robust, particularly with respect to the overall business case, the evaluation should take place with those measures deemed to be in place.

1: The Airports Commission's conclusions

- 1.1 Gatwick has carried out a comprehensive analysis of the robustness of the Commission's underlying evidence base and assessment methodology.
- 1.2 The Commission's recommendation in favour of a third runway at Heathrow appears to be based on the following principal arguments, the essence of which we summarise here:

“There is a need for new capacity”

- A new runway is needed by 2030.

“Heathrow can provide that capacity most easily and quickly”

- Gatwick is well placed to cater for growth in intra-European leisure flying, but is unlikely to provide as much of the type of capacity that is most urgently required : long-haul destinations in new markets. Heathrow can provide that capacity most easily and quickly.

“Expanding Heathrow provides greater benefits”

- The benefits from expanding Heathrow are significantly greater, for business passengers, freight operators and the broader economy.

“Measures to limit Noise impacts and to ensure acceptable Air Quality would make Heathrow expansion more acceptable to local communities”

- To make expansion possible the Commission recommends a comprehensive package of accompanying measures which would make the airport's expansion more acceptable to local communities
 - measures to limit noise impacts
 - measures to ensure acceptable air quality around the airport, and
 - a new Community Engagement Board
- The Commission argues that this means that an expanded Heathrow would be a better neighbour for local communities than the airport is today, that a bigger Heathrow would not inflict noise nuisance on more people than the airport does today, and that the people affected would be far better compensated.

- 1.3 In the sections following, we comment on these arguments and identify our key issues of concern. We comment also in sections 7 and 8 on areas which the Commission has either not addressed sufficiently thoroughly, or has not addressed at all.

- 1.4 Finally, in section 9 we comment on the Commission's view that the Heathrow NWR scheme is fundamentally different from (and, by implication, better than) the previous Heathrow scheme which the Coalition Government ruled out in 2010, and in section 10 on the overall judgement made by the Commission in reaching its recommendation.

2: “There is a need for new capacity”

Has the Commission assessed correctly the aggregate demand?

- 2.1 Forecasts of demand for air travel are inherently uncertain, but there is general agreement that demand will exceed existing runway capacity before 2030. At aggregate level, the Commission’s traffic case shows that expansion at Heathrow or Gatwick delivers virtually the same capacity and traffic for the UK taken as a whole.
- 2.2 Furthermore, the Commission and Gatwick agree on the aggregate level of demand for air travel. The Commission’s forecasts show that, by 2050, Heathrow NWR and Gatwick R2 would result in virtually the same overall UK O&D passenger volumes (excluding International to International interliners): 412 mppa with Heathrow NWR compared to 413 mppa with Gatwick R2.
- 2.3 However, there are significant differences between the Commission’s forecasts and those commissioned by Gatwick in the rate and pattern of traffic growth at each airport, particularly as regards the early years of operation of each new runway. The traffic forecasts and related issues for each new runway should be re-examined as they are the starting point for virtually all of the analysis that follows including phasing, economic benefits, and business cases.

Has the Commission considered fully the timing of the need for new capacity?

- 2.4 The Commission asserts that another runway is not needed until 2030, that all the shortlisted schemes could be ready by then (see paragraphs 4.88 – 4.94 of the Interim Report), and has not revised this view in its Final Report. But the Commission has not demonstrated why another runway would not be beneficial before 2030. We believe there is strong evidence to support the proposition that one additional runway would be beneficial at as early a date as possible.
- 2.5 Gatwick submitted evidence to show that Gatwick R2 could be delivered by 2025 but that Heathrow NWR could not be delivered until 2029 at the earliest.

Has the Commission assessed the risks to timely delivery?

- 2.6 Deliverability needs to consider all stages of the process:
 - obtaining (but also maintaining) policy support for the project through at least one Parliamentary cycle and possibly two – a period of up to 10 years;
 - obtaining planning permission either through a Development Consent Order (DCO) or Hybrid Bill; and
 - throughout the construction period.
- 2.7 We address these issues in full in Section 7, Deliverability. Taken together, the analyses demonstrate that the delivery risks facing Heathrow NWR are materially greater than those facing Gatwick R2.

3: “Heathrow can provide capacity most easily and quickly”

What type of capacity is needed?

- 3.1 The Commission’s assertion that Heathrow is best placed to provide the capacity the UK needs most easily and quickly is based on an assumption that long haul capacity to emerging markets is much the most important type of capacity required.
- 3.2 The Commission has not assessed the relative benefits from increased long haul and short haul traffic in the London system, which is a relevant consideration given that the Commission’s analysis shows that the difference in long haul routes is minimal (2 routes) between Heathrow and Gatwick expansion, and that short haul accounts for roughly 70% of current and future demand.

Are the Commission's traffic forecasts realistic?

Base demand at Gatwick in the mid-2020s is understated

- 3.3 The Commission’s traffic forecasts are overly pessimistic about the level of demand at a two runway Gatwick in the early years of operation.
- 3.4 The Commission’s forecasts of passenger numbers for a two runway Gatwick in the 2020s are already being achieved today at a one runway Gatwick. The Commission expects Gatwick R2 to reach passenger volumes of 40 million in 2024, whereas the airport will reach that number this year. It is clear therefore that the starting point for the Commission’s forecasts is too low.

The rate of traffic build up following the opening of Gatwick R2 is incorrect

- 3.5 Not only is the base level of demand underestimated but the forecasts also suggest that if Gatwick is expanded by one runway, in the first year of operations it will generate only an additional 2 million passengers, despite the fact that Gatwick grew by 2.7 million passengers last year with a single runway and despite, by then, there will be an additional ten years’ worth of pent up demand. The Commission also states that after five years with a second runway, Gatwick will have an additional 8m passengers – less than Heathrow would have after one year with a third runway.
- 3.6 The Commission has sought to explain this forecast low level of growth by suggesting that over the past decade Gatwick has benefitted from spare capacity whilst Heathrow has been capacity constrained. It concludes “It is unlikely that the recent high rates of growth at Gatwick could be maintained over the long term once the remaining capacity is used up” (Final report page 109). This conclusion has no validity as it appears to confuse factors affecting past growth performance with factors determining future growth at an expanded airport with massive new capacity and, even more significantly, appears to conclude that there would be low demand for use of a second runway at Gatwick even though Heathrow continued to be capacity constrained.
- 3.7 The Commission has failed to provide any convincing explanation as to why the forecast rate of growth in the early years of Gatwick R2 is so low relative to Heathrow and relative to Stansted / Luton.

- 3.8 In summary, we continue to consider that the traffic forecasts for Gatwick R2 are unrealistically low. We also consider that the Commission has failed to provide any substantive response to our previous criticisms of those forecasts.

The rate and composition of traffic growth of a third runway at Heathrow is overstated

- 3.9 In contrast to the pattern at an expanded Gatwick, the Commission's forecasts show a very rapid build-up of demand at Heathrow in the early years of a third runway. For instance, in the period 2025 – 2030 Heathrow is expected to grow by 36 million passengers – equivalent to adding an airport roughly the size of Gatwick in 6 years – compared to Gatwick's growth over the same period with a new runway of 9 million passengers. In the first year of operation of a third runway the Commission's forecasts show Heathrow growing by 12 million passengers. This is equivalent to adding an airport the size of Luton in a single year and assumes the addition of 100 new daily services on 1st January 2026 – a very unrealistic assumption.
- 3.10 Gatwick has examined the forecasts for Heathrow in the year 2030 with a third runway. In that year the Commission forecasts show 31 million additional passengers at Heathrow compared to the "do minimum" case. Of that number, 14.7 million are additional international – international transfer passengers. Of the remaining 16.3 million O&D passengers, 9.8 million have swapped from other London airports and 3.7 million from regional airports. Thus at a UK level, expanding Heathrow is forecast to deliver only an incremental 2.8 million O&D passengers.
- 3.11 In summary we have the following concerns:
- the forecast Heathrow NWR growth rate is not plausible;
 - the forecast composition of traffic at Heathrow is not reasonable and does not support a decision to provide capacity there in the interests of the UK economy;
 - the very low incremental O&D traffic is not consistent with the substantial economic benefit ascribed by the Commission to a third runway at Heathrow.

How well do the schemes meet market demand?

- 3.12 The Commission was wrong to conclude that Heathrow and Gatwick serve different markets rather than accepting that either of them can meet growth in UK and non UK demand for air travel.
- 3.13 The Commission has placed far too much weight on the benefits of more long haul traffic at Heathrow compared to Gatwick. The Commission states "(Gatwick) is unlikely to provide as much of the type of capacity which is most urgently required : long haul destinations in new markets. Heathrow can provide that capacity most easily and quickly" (Foreword to Final Report p 4).
- 3.14 Yet, the Commission's own forecasts show that , by 2050, an expanded Heathrow delivers for the UK system as a whole only 2 more long haul routes compared to an expanded Gatwick : 133 versus 131 (source Tables 6.31 and 6.33 Strategic Fit Forecasts AoN carbon traded).
- 3.15 Short haul accounts for some 70% of demand in the London area and provides the highest growth, the key links to the UK's biggest trade partners, and the greatest opportunity for delivering the benefits of competition to consumers. The Commission appears to attach little or no weight to this, the largest, segment of the market.

- 3.16 Overall the Commission's forecasts show that expansion at either Heathrow or Gatwick delivers the UK system an identical number of destinations by 2050: 405 in each case (source Table 6.31 and 6.33 Strategic Fit Forecasts). As regards connectivity for the UK Nations and Regions, the Commission's forecasts demonstrate that an expanded Heathrow will serve fewer domestic routes than today – by 2050, only 4 domestic routes compared to 7 today.
- 3.17 The Commission argues that lack of capacity at Heathrow is already preventing the development of new links to emerging markets. This argument is not supported by analysis of the 12 new routes BA has launched from Heathrow during the last two years since acquiring additional Heathrow slots from BMI – 10 routes to leisure destinations, and only two to emerging markets. The fact that BA has launched only two new routes to emerging markets in this period clearly stems from normal commercial considerations rather than from theoretical capacity constraints as BA is able to draw on the BMI slot pool to launch new long haul routes as and when such routes make commercial sense.
- 3.18 It is obvious that airlines need a level of base demand in order to establish business cases to launch routes. The reason that London has fewer services to secondary points in Asia than Paris or Frankfurt is much more likely to be that UK trade and investment in these markets is lower than that of France and Germany, and consequently the base level of demand is less, than that lack of capacity at Heathrow is constraining development of such routes.

How much capacity is provided by the options?

- 3.19 The Commission assumed that Gatwick R2 would provide a capacity increase of 280,000 and that Heathrow NWR would provide a capacity increase of 260,000 ATMs.
- 3.20 However the Commission did not undertake its own detailed assessment of how much capacity each option would in fact provide. For its part, Gatwick submitted evidence to the Commission on how much runway capacity would actually be gained at Gatwick R2 and at Heathrow NWR. This was informed by simulation modelling carried out by Deutsche Flugsicherung GmbH (DFS), a leading European air navigation service provider.
- 3.21 The modelling showed that, due to air traffic control and airfield complexity, the increase at Heathrow would be lower at around 190,000 additional movements annually (giving a total of 118mppa), as opposed to Heathrow's claimed 260,000 additional movements and a total of 135mppa. In contrast, Heathrow's figures make no allowance for the complexity of the three runway configuration under the proposed operating modes. The Commission made no reference to this work in its Final Report, nor to the concerns about Heathrow's capacity raised by the CAA and NATS in their advice to the Commission.
- 3.22 We consider that the incremental capacity generated by Heathrow NWR is therefore likely to be only 60-70% of that generated by Gatwick R2 – and of the capacity claimed by Heathrow. A capacity reduction on this scale will have major adverse effects on the Heathrow NWR business case.
- 3.23 The Commission concluded that the capacity offered by Heathrow NWR would be the same as that proposed by HAL, but did not make any allowance for the capacity restrictions that DFS argued would be imposed by the operational complexity of a three-runway Heathrow, or for any restrictions on capacity that might be imposed during the planning process. The Commission only refers to the concept of capacity restrictions as a result of operational complexity in its argument for ruling out a fourth runway at Heathrow.

- 3.24 The Commission did not make any allowance either for the capacity restrictions that would certainly be imposed by the package of mitigation measures it itself proposed as an integral part of its recommendations. A complete ban on night flights is proposed by the Commission at Heathrow, alongside other restrictions on noise. The impact of such restrictions on runway capacity has not been factored into its forecasts. This is a major omission.
- 3.25 The Commission does not take account of the impact of airport charges (which would be much higher than otherwise under a Heathrow compared with Gatwick expansion) on traffic demand and volumes. As the Commission's own economic experts point out, the Commission assumes that traffic demand is price inelastic whereas it is to varying degrees price elastic. Traffic forecasts for Heathrow should be adjusted downward relative to Gatwick to reflect this, but the Commission has not done so. In the case of short haul traffic in particular the charges at Heathrow would be very material indeed as a percentage of air fare.

Has the Commission's final report responded adequately to Gatwick's previous criticisms of its traffic modelling?

- 3.26 Gatwick's previous criticism of the Commission's demand forecasting methodology has been misrepresented, and unfairly dismissed.
- 3.27 We have made a series of substantive submissions to the Commission on these issues over the past 2 ½ years. The Final Report shows that the Commission has given little serious consideration to the points we have raised and it has not adjusted its forecasts in any material way. Nor has the Commission provided any substantive justification for the elements which we queried within its forecasts.
- 3.28 A critical issue in this context is the inability of the DfT model to realistically forecast demand following a step change in airport capacity. This issue, which Gatwick has repeatedly raised, has been completely sidestepped by the Commission and warrants close scrutiny as we believe it lies at the heart of the major differences in early years performance. Documentation accompanying the DfT traffic allocation model makes clear that it should not be used as a basis for capacity decisions, and that forecasting errors are magnified at the airport level.
- 3.29 Gatwick has provided an extensive and clear critique and examples of the tendency of the Commission's forecasting methodology to under-forecast demand at Gatwick and over-forecast demand at other airports. When compared with actual traffic figures, and when the lack of realism in the Commission's forecasts is considered, it is clear that Gatwick's concerns have not been appropriately addressed. The simple fact is that the Commission has not provided any adequate reasons for rejecting the points raised by Gatwick.

Will Heathrow really provide the needed capacity more easily and more quickly?

- 3.30 The Commission's own interpretation of likely opening dates states that Gatwick R2 can be operational by 2025 and the Heathrow schemes by 2026. The Commission further states that whilst there may be a risk of further delay, such risk applies equally to all schemes.

- 3.31 This is clearly not correct for the reasons set out in Section 7 - Deliverability, which shows that the risk of delay of Heathrow NWR is materially greater than the risk of delay at Gatwick.
- 3.32 A thorough and comprehensive risk assessment of the three options should be carried out. Such a risk assessment will demonstrate that Gatwick R2 has materially lower risks to delivery, and that Heathrow will not provide the needed capacity more easily or more quickly.

Conclusions on the traffic and capacity analysis

- 3.33 Having reviewed the Commission's final report and conclusions, Gatwick considers that :
- at the UK aggregate level, Heathrow NWR and Gatwick R2 deliver virtually the same number of UK O&D passengers volumes and the same number of destinations. Similarly the number of passengers flying directly to and from airports in the Nations and Regions is the same under all schemes;
 - the Commission's forecasts materially understate the rate of traffic growth at an expanded Gatwick whilst materially overstating that at Heathrow: an error which flows through into other aspects of the assessment, particularly the economic benefit analysis;
 - the Commission has given disproportionate weight to the benefits of additional long haul routes delivered to the UK by an expanded Heathrow, whilst under valuing the role and benefits of short haul traffic;
 - the capacity delivered by Gatwick R2 is materially higher than that delivered by either Heathrow option and the stated capacities of the Heathrow options are not achievable;
 - the Commission has failed to provide any substantive reasons for failing to adjust its traffic forecasts in the light of Gatwick's criticisms.

4: “Expanding Heathrow provides greater benefits”

Will Heathrow provide greater benefits for passengers?

- 4.1 The Commission contends that the impact of airport charges and consequent impact on airfares have been taken into account both in its traffic forecasts and in the OECD report “Review of Airports Commission Forecasts and Scenarios”. Gatwick has found little evidence that this is the case.
- 4.2 The conclusions drawn by the Commission with regard to traffic volumes at each airport do not adequately reflect the large differential in airport charges between the Heathrow options and Gatwick R2.
- 4.3 This is particularly important given the assumption that Low Cost Carriers and price sensitive transfer passengers would use an expanded Heathrow despite the considerable rise in airport charges required to fund a third runway. Heathrow already heavily discounts airport charges for transfer traffic, and yet projects that half the growth of passengers in the first five years of third runway operation will come from international – international transfer passengers and can still be achieved whilst increasing charges.
- 4.4 The Commission’s analysis does not appear to take into account that much higher airport charges (including those related to Heathrow’s share of road and rail infrastructure costs) will have the effect of reducing demand for air travel at Heathrow. Nor does it take into account subsequent remarks by Heathrow that a complete night ban would influence its commercial judgements. This is a serious shortcoming in the forecasting methodology.

Will Heathrow provide greater benefits for freight operators?

- 4.5 The Commission has placed a great deal of importance on the forecast freight volumes of the three schemes. In practice freight volumes directly correlate with the volume of long haul traffic, so the previously stated issues with the Commission’s forecast allocation of traffic to Gatwick and Heathrow account for the difference between the options at the airport level.
- 4.6 We note that the overall level of demand at the UK level is broadly the same for all schemes, which suggests that belly hold capacity available for freight would, like passenger capacity, be more equitably distributed throughout the Nations and Regions of the UK with Gatwick R2.
- 4.7 When US carriers were excluded from Heathrow by Bermuda 2 and Gatwick had a sizeable US business, freight levels at Gatwick were comparable to those at Heathrow at the time, a situation which would be likely to reoccur with additional capacity and a sizeable long haul component at a two runway Gatwick – a situation which more realistic traffic forecasts would demonstrate.

Has the need to encourage competition been properly assessed?

- 4.8 The airline and airport competition implications of increasing the concentration of airport capacity at a single location, as opposed to the benefits of further developing a network of competing airports, should have been reviewed in the context of the policy of encouraging competition as set out in the Aviation Policy Framework.

- 4.9 In our view, expanding Heathrow will further increase its market power in a situation where it currently has 70% of the UK's long haul traffic and over 60% of the UK's freight tonnage. It is impossible to reconcile such increased market power resulting from expansion at Heathrow with the competition policy that led to the breakup of BAA. The interests of passengers and the freight operators would be better served by promoting competition between, and from, different airports within the London airport system, combined with a network of thriving international airports across the UK.
- 4.10 Economic benefits are largely the result of better direct air connectivity for all Nations and Regions of the UK (see paragraphs 2.11 to 2.15). It is also due to the earlier delivery of capacity at Gatwick as discussed in paragraphs 2.4 to 3.18 and in Section 3 (Deliverability) later in this submission.
- 4.11 These benefits could be better distributed around the UK if a competitive London airport system, combined with a network of thriving international airports across the UK, is supported by Government. This is because these economic benefits are largely the result of better direct air connectivity for all nations and regions of the UK (see paragraphs 2.11 to 2.15). It is also due to the earlier delivery of capacity at Gatwick as discussed in paragraphs 2.4 to 3.19 and in Section 3 (Deliverability) later in this paper.
- 4.12 The economic benefits are also better distributed throughout the South East of England due to Gatwick's geographical location in relation to South, Central and East London as well as the South Coast.

Are the benefits for the broader economy from Heathrow expansion likely to be greater?

Assessment of wider economic benefits (the PwC methodology)

- 4.13 Much less weight should be attached to the wider economic benefits assessment undertaken by PwC than the Commission has done.
- 4.14 This assessment has been transferred from the Economic to the Strategic Case following a peer review by the Commission's expert panel which stated: "*We counsel caution in attaching significant weight either to the absolute or relative results of the GDP / GVA S-CGE approach (PwC report) within the Economic Case*"¹. The panel also stated that care is required in assessing the "robustness and reliability" of the PwC work. Yet the Commission has continued to place significant weight on these results in its overall conclusion and recommendation, and represents them as a significant part of its economic assessment.
- 4.15 Gatwick agrees with other respondents to the Commission's consultation, and with the Commission's expert panel reviewers, that little if any weight should be given to PwC's conclusions. The principal reasons for this are:
- There are serious question marks over the PwC methodology which the Commission's external reviewer described as "unique or at least very unusual"².
 - A large part of this relative difference in Net Present Value GDP effects between Gatwick R2 and Heathrow NWR reflects the Commission's forecast of the very slow build-up of traffic at Gatwick that we have questioned in the previous section.

¹ Page 7 Expert Adviser's Note – Airports Commission Final Report

² Page 1 Expert Adviser's Note – Airports Commission Final Report

- Another significant failing of the PwC work is that while its analysis purports to demonstrate the impacts on the wider UK economy of airport expansion, it only takes into account the growth in passenger traffic at the expanding airport – it fails to take into account the related reduction in passenger traffic at other airports. This effect is recognised by PwC in its report, which states *“a substantial share of additional demand at Heathrow is forecast to be redirected from existing UK airports. This would have important implications for the net impact of additional passenger spending, as any additional inbound expenditure due to increased passenger flow through Heathrow would partly be offset through falling expenditure associated with other airports.”* Yet the PwC analysis does not appear to reflect this impact. Nor has sufficient access to the model been made available to confirm the effect.
- The analysis also assumes that there will be material differences in the inbound-outbound passenger split and associated spending patterns between Gatwick R2 and Heathrow NWR. These assumptions are not credible – the incremental traffic to be served by each airport will be similar, especially once both Heathrow and Gatwick have been operating with two runways for 10 years and beyond. The published sensitivity analysis shows that correcting this assumption removes entirely the difference between the economic benefits of the two schemes. This point is critical because, since it has not been corrected, it renders all of PwC’s subsequent findings on the relative difference between the supposed wider benefits of the Gatwick and Heathrow schemes invalid. Accordingly any recommendation based upon these differences is open to serious question.
- There are other biases in the analysis, mainly resulting from taking the status quo as a strong predictor of the future. For example, the Commission assumes that if Gatwick expands and attracts more business passengers, the value of their time will be lower than if they had travelled from Heathrow, with the benefits of improved flight frequency from Gatwick correspondingly less. This assumption does not correspond with any previous analysis and no justification for it is provided by the Commission.

4.16 The above weaknesses were confirmed by an independent peer review of the PwC analysis which Gatwick commissioned and supplied to the Commission, but on which the Commission made no comment.

4.17 Despite the serious reservations of the Commission’s own independent reviewers, and although the Commission has not placed the PwC analysis in its Economic Case, the Commission has reflected the output of the PwC Report elsewhere in its Final Report and has given its results undue prominence both in its summary of the report and associated press release. This is unacceptable given the clear concerns expressed by the reviewers who noted “care is required in assessing its robustness and reliability” and the real issues associated with “exaggeration by media” of the headline figures from such work. Continued reliance upon this flawed methodology in support of a recommendation and any subsequent decision based upon it is likely to be susceptible to a legal challenge from those who might wish to undermine that recommendation.

Assessment of direct economic benefit (the HM Treasury methodology)

4.18 More weight should be attached instead to the Commission’s assessment of direct economic benefits which is set out in Chapter 7 of its Final Report and is partially consistent with standard HM Treasury guidelines.

4.19 Table 7.1 of the Final Report summarises the present value of total benefits associated with each scheme in their Carbon Traded traffic scenario as being:

- £69.1 billion, Heathrow NWR;
 - £58.7 billion, Heathrow ENR;
 - £60.1 billion, Gatwick R2.
- 4.20 Taking into account associated dis-benefits and the costs of delivering the schemes, the Net Present Value of the scheme benefits are:
- £11.8 billion, Heathrow NWR;
 - £10.2 billion, Heathrow ENR;
 - £10.8 billion, Gatwick R2.
- 4.21 The data above includes benefits that accrue to International-to-International Transfer passengers (i.e. those passing through the UK airport for convenience rather than as a contributor to the UK economy). Removing these benefits, as would conventionally be the case in an economic analysis of this type, reverses the Net Present Value result firmly in favour of Gatwick R2. Benefits to residents of other economies not visiting the UK are clearly unrelated to the UK economy.
- 4.22 Taking these points into account, the Commission analysis indicates that the Economic Case for expansion at Heathrow and Gatwick is finely balanced and, taken on its own, the analysis suggests that Gatwick R2 is the better case.
- 4.23 However, the Economic Case presented by the Commission reflects the underlying traffic forecasts. If this economic analysis is adjusted to correct the issues identified earlier in relation to traffic forecasts, Gatwick R2 would perform a good deal more strongly than either Heathrow option.
- 4.24 The economic benefits for the UK from airport expansion come principally from meeting the demand of “Origin/Destination” passengers that start or end their journey in the UK and not from “Transfer” passengers merely using the UK as a transit point on their way from one country to another. The Commission’s central expectation is that by 2030, the number of Origin/Destination passengers will be identical whether Gatwick or Heathrow is expanded i.e. 294 million passengers. Thereafter, a gap emerges, with more O&D passengers in the UK with Gatwick expanded rather than Heathrow – circa 5 million more through expansion at Gatwick by 2050.
- 4.25 Thus even the Commission’s own forecasts demonstrate that Gatwick R2 better enables the UK to meet the demand from O&D passengers. On this basis, it is not surprising that the net direct economic benefits from airport expansion – as determined by the Commission – are at least as good for Gatwick R2 as for either Heathrow option.
- 4.26 More weight should be attached to the standard BCR approach – which shows (even on the Commission’s analysis) that Gatwick R2 performs best. This conclusion would be further strengthened if the analysis took full account of risk in line with Green Book guidance, as the risks attaching to expansion at Heathrow are significantly higher than those for Gatwick.

Conclusions on the economic benefit analysis

4.27 Gatwick considers that:

- very little if any reliance should be placed upon the results of the PwC Spatial Computable General Equilibrium Model;
- most weight should be attached to the direct economic benefits assessment as it relied on tried, tested and well understood modelling techniques;
- the local economic benefits of the Heathrow options are overstated relative to those of Gatwick R2;
- overall, Gatwick R2 performs as well as, if not better than, either Heathrow option.
- there are significant competition and consumer benefits from distributing airport capacity around London and the UK rather than further increasing market power at Heathrow and that Gatwick R2 aligns with its own policy of supporting greater airline and airport competition.

4.28 It is clear from all of the preceding points that Gatwick R2 provides similar, if not greater, direct economic benefits to the UK as Heathrow, particularly as measured according to HM Treasury guidelines. These benefits can clearly be achieved sooner at Gatwick. Little or no weight should be given to the PwC report.

5: “Measures to limit noise impacts would make Heathrow expansion more acceptable”

Are the Commission's conclusions and recommendation aligned with Government policy on noise?

- 5.1 Airborne aircraft noise is generally one of the most, if not the most, sensitive issues in relation to major airport development. Noise will be the most important issue for tens of thousands of people around Gatwick and over 700,000 around Heathrow.
- 5.2 The Secretary of State for Transport retains significant powers to limit and control the impact of aircraft noise on local communities at the main London airports including Heathrow and Gatwick. There is a long history of Government policy on noise, and the method by which the noise impact of a new runway should be assessed is clear.
- 5.3 The Government's policy is “... *to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise*”³. The Commission misrepresents and gives insufficient weight to this policy.
- 5.4 The scale of Heathrow's noise impact today is very high compared to other major airports, both in the UK and internationally. The added impact of a third runway at Heathrow is very considerable in its own right, and contentious major airspace changes would be required – creating significant levels of noise for many people including those newly affected. A second runway at Gatwick would also cause more people to be affected by noise, but on a much lesser scale than a third runway at Heathrow.
- 5.5 The rationale for the Commission's recommendation incorrectly places most emphasis on how noise is expected to reduce over time instead of comparing the noise with and without a new runway.
- 5.6 The Commission's assertion that Heathrow will be a better neighbour with 3 runways than today is based on a comparison that is not compatible with recognised best practice or Government policy.
- 5.7 The Commission acknowledges at paragraph 9.49 of its Final Report that Gatwick R2 performs best against this policy. Indeed, from any consideration of noise impacts of the three schemes together, it is clear that Gatwick R2 is the best option available. However, the Commission's conclusions largely bypass this important point and focus much more on a comparison of an expanded Heathrow with Heathrow today.

³ UK Government Aviation Policy Framework 2013

Has the Commission assessed the noise impacts correctly?

5.8 The Commission's work confirmed that Gatwick R2 provides the best fit with Government policy. This is confirmed in any side by side comparison of noise results:

Measures relating to the number of people contained with noise contours in 2050			
Objective/measure	Effects at Gatwick with R2	Effects at Heathrow with R3*	Multiple LHR x LGW
Minimise the <u>increase in number of people newly affected by noise</u>	18,200 ⁴	157,900 ⁵	x8.7
Minimise the <u>number of additional people affected by noise</u>	15,100 ⁶	143,100 ⁷	x9.5
<u>Total number of people in 55 Lden contour</u>	24,600 ⁸	726,600 ⁹	x30
Measures relating to numbers of additional noise sensitive amenities affected in 2050			
Objective	Effects at Gatwick with R2	Effects at Heathrow with R3*	Multiple LHR x LGW
Minimise the <u>number of schools in 54dBA contour</u>	14	108	7.7
<u>Schools exposed to 200 or more additional noise events per day of 70dB or greater</u> ¹⁰	0 ¹¹	15 ¹²	

*LHR Option N airspace scenario (to minimise the number of newly affected people, 55 Lden contour)

⁴ November 2014 Noise: Local Assessment - Page 42

⁵ Based on the Heathrow NWR 'N' airspace scenario (to minimise the number of newly affected people) - November 2014 Noise: Local Assessment - Page 156

⁶ November 2014 Noise: Local Assessment - Tables 3.4 and 3.8

⁷ Based on the Heathrow NWR 'N' airspace scenario (to minimise the number of newly affected people) - November 2014 Noise: Local Assessment - Tables 4.4 and 4.49 (for Heathrow NWR)

⁸ Noise: Local Assessment Report Table 3.8

⁹ Local Assessment Report Table 4.49

¹⁰ Based on the Heathrow NWR 'N' airspace scenario (to minimise the number of newly affected people) – November 2014 Noise: Local Assessment - Table 4.68

¹¹ November 2014 Noise: Local Assessment - Table 3.27

¹² Based on the Heathrow NWR 'N' airspace scenario (to minimise the number of newly affected people) – November 2014 Noise: Local Assessment - Table 4.68

- 5.9 The Commission correctly concluded that Gatwick R2 was the scheme that best met its noise objective *“to minimise and where possible reduce noise impacts.”* (Final Report Para 9.49)
- 5.10 A fundamental error in the Commission’s noise assessment is its baseline analysis, in which it compares the noise effects at the airport sites today with those in the future. It should have compared the future ‘without development’ with the ‘with development’ situation in the same year in line with its own appraisal framework¹³ and best practice in noise assessments.
- 5.11 The analysis also fails on the following points, where the Commission:
- does not show the noise effects at each of the schemes, against a range of noise metrics, side by side in appraisal summary tables;
 - fails to give sufficient weight to the number of people affected by noise, and in particular those newly affected;
 - fails to give sufficient weight to the issues associated with airspace change, some of which are intrinsic to respite mitigations proposed at Heathrow;
 - does not define a common noise envelope against which the relative performance of the three schemes can be fairly evaluated;
 - mis-characterises the situation between Heathrow and Gatwick in respect of airspace change, and places emphasis on the ability to provide respite or introduce other measures to reduce noise at Heathrow while failing to analyse on a comparable basis the opportunity for such respite or measures with Gatwick R2.
- 5.12 We believe that the errors and omissions in the Commission’s assessment have led to a substantial understatement of the likely local impacts of Heathrow NWR. This may moreover have led the Commission to attach insufficient weight to noise impacts.
- 5.13 Because the results of the Heathrow NWR Local Assessment feed into the Commission’s National Noise assessment of both Gatwick R2 and Heathrow NWR, it follows that:
- the National Noise Assessment impacts of Heathrow NWR are also understated and those of Gatwick R2 overstated;
 - the ‘significant adverse effects’ of Heathrow NWR are almost certain to be even greater than assessed by the Commission; and
 - the relative noise advantages of Gatwick R2 over Heathrow NWR are even greater than the Commission has reported.
- 5.14 The Commission is wrong to ascribe the benefits of operational measures and technical improvements such as airspace plans and displaced thresholds only to Heathrow NWR, or whether these should also be attributed to the 2 runway baseline case.
- 5.15 All such errors and omissions will need to be considered in the course of preparing an Appraisal of Sustainability for any future Airports National Policy Statement.
- 5.16 In our response to the Commission on the November 2014 National Consultation, we expressed concern that, in the case of the Heathrow NWR assessment, the Commission

¹³ Airports Commission Appraisal Framework Paras 5.13 to 5.15

was applying inconsistent and unjustified operational assumptions as between the Heathrow NWR 'with scheme' and 'without scheme' cases¹⁴.

- 5.17 In particular, in the underlying technical work undertaken by Jacobs, the potential benefits of most operational assumptions, such as displaced thresholds and airspace designs, were ascribed only to the Heathrow NWR 'with scheme' cases and not the 'without scheme' case. Only steeper approaches were applied correctly to 'with scheme' and 'without scheme' assessments.
- 5.18 Clearly, improvements such as airspace changes designed to reduce the total number of people affected by noise or to offer respite are equally applicable to the 'without scheme' case. The decision not to apply these measures to the 'without scheme' cases means that the Commission's analysis has overstated the noise impacts of the Heathrow 'without scheme' and correspondingly understated the increase in noise that would result from the development of Heathrow NWR.
- 5.19 The assumptions applied to the 'with' and 'without scheme' scenarios are not consistent with the Government's "WebTAG" transport modelling and appraisal guidance and should be corrected.

Are the airspace assumptions underlying the Commission's noise assessments robust?

- 5.20 In its final report (para 12.16) the Commission suggests that airspace management would be easier for the Heathrow options 'given that they would represent an evolution of a current design which sees Heathrow acting as a centre of gravity with the London and South East system'.
- 5.21 This misrepresents the situation and makes no sense in terms of airspace planning. There would clearly be significant airspace challenges in adding a third runway to Heathrow and these challenges would be made more severe by its location in the centre of the complex London airspace structure. This is acknowledged by NATS in its advice to the Commission¹⁵ where it points out the 'complicated airspace re-design' required at Heathrow. In its advice to the Commission¹⁶ the CAA also describes the scale of redesign required. A third runway would require 'a complete review and update of the entire operation', i.e. existing procedures cannot be relied on. The Commission's analysis suggests that they have not understood either the implications for Heathrow's impact on local communities or the implications for neighbouring airspace.
- 5.22 In practical terms, Gatwick's position on the southern edge of London airspace would obviously make it easier to redesign airspace, compared to Heathrow's more central location with consequential greater impact on neighbouring airspace.
- 5.23 Airspace designs being assessed for all three schemes must be capable of being delivered and operated¹⁷. We have seen nothing to suggest that the Commission has assured itself that these designs (or similar ones that promote a multitude of different routes to offer respite) are deliverable or operable.

¹⁴ Paras 4.318 to 4.322 Gatwick's Response to Airports Commission Consultation 3rd February 2015 and Section 2.6 of our supporting Noise Technical Report prepared by ERM

¹⁵ NATS, 14 Operational Efficiency – Fast Time Airspace Simulation, April 2015

¹⁶ CAA CAP1215, Module 14: Operational Efficiency – preliminary safety review

¹⁷ Para 4.321 Gatwick's Response to Airports Commission Consultation 3rd February 2015 and Section 2.6 of our supporting Noise Technical Report prepared by ERM

- 5.24 The response to the recent Ascot airspace trial at Heathrow serves only to reinforce our view that the respite route options considered by the Commission (or any similar radical overhaul) may prove highly controversial and therefore could prove undeliverable.

Has noise respite been considered properly by the Commission?

- 5.25 Significant weight appears to have been placed by the Commission on the ability of Heathrow NWR to be operated so as to provide respite.
- 5.26 Yet the Commission states that “neither Heathrow scheme would be able to deliver the same level of respite through runway alternation as is currently provided” (Final Report para 9.34). Thus, development at Heathrow would mean less respite for existing populations affected.
- 5.27 The proposal put forward by Heathrow offers less noise respite through runway alternation than exists today (25% respite for communities below the flightpaths to the southern and new northern runway, whereas today the communities overflowed get 50% respite). Given the much larger numbers of people affected by noise at Heathrow it is clearly wrong to imply that an airspace redesign programme there will be less contentious than one at Gatwick.
- 5.28 The specific “Respite” airspace option considered by the Commission (Figure 4.4 of the November 2014 Noise: Local Assessment Report), appears to assume a very radical overhaul and reconfiguration of airspace routes around Heathrow with close to one hundred different arrivals and departure routes including curved approaches. Inevitably, this involves significant levels of flying over new populations.
- 5.29 The Commission implies that there are no opportunities for offering noise respite at Gatwick. This is not the case, and we will be able to investigate options for alternating runway use at night, and options for alternative daytime flightpaths on arrival and departure. The Commission has neither explored nor evaluated the opportunities which exist for respite with Gatwick R2, where it is important to note that the absolute number of people affected by noise would be a fraction of those at Heathrow.

Do the Commission's conclusions and recommendation correctly reflect its noise assessment?

- 5.30 The Commission makes an argument that the noise effects of expansion at Heathrow would somehow be acceptable because noise from an expanded airport would not exceed currently levels. This does not properly consider the reality of the step-change which would be felt with large-scale redistribution of noise around Heathrow over London. New flight paths will be opened up and new populations would be affected. The respite periods afforded to existing populations affected by noise will reduce.
- 5.31 The Commission’s analysis conflicts with the clearly established approach to assessment of transport projects in the Government’s Transport Appraisal Guidelines (with Web TAG and with an Appraisal of Sustainability). These require the impacts of a scheme to be assessed by comparing the ‘with-scheme’ case against the ‘without-scheme’ case in a future forecast year when the capacity of the transport infrastructure is in full use.

5.32 Despite this, the comparison between Heathrow with three runways and Heathrow today features centrally in the Commission's findings in favour of Heathrow NWR. In the Foreword of the Commission's Final Report it is expressed in the following terms:

“Combined with improvements to aircraft technology, which are reducing noise and emissions over time, and new traffic management procedures ... an expanded Heathrow would be a better neighbour for local communities than the airport is today. A bigger Heathrow would not inflict noise nuisance on more people than the airport does today, and the people affected would be far better compensated.”

5.33 In its November 2014 Noise: Local Assessment Report the Commission's consultants Jacobs rightly dismissed the comparison of a future situation with today [p206] in stating:

“[HAL's] assertion that the number of people affected by daytime aircraft noise in the 2030 and 2040 Do Something scenarios would be lower than the current situation...is not a comparison required by the noise appraisal and it should be noted that far greater reductions in current daytime noise would be realised in the 2030 and 2040 Do Minimum [sic] options than the NWR options.” (our emphasis)

5.34 The fact that the Commission has chosen to place primary emphasis on its conclusion that “A bigger Heathrow would not inflict noise nuisance on more people than the airport does today” disguises the fact that adding a third runway there would cause many more people to be affected by noise following opening of the new runway than would otherwise be the case, and ignores the fact that very large numbers of people would be newly affected.

5.35 The deficiencies and omissions that have been identified by ourselves and others in the Commission's work should be considered before reaching any decision as to whether further expansion at Heathrow is compatible with Government policy on noise.

Would the measures proposed by the Commission make Heathrow expansion more acceptable to local communities?

5.36 The number of people newly affected is a very important element of a scheme's impacts. But in assessing the number of people who would be newly affected Commission has incorrectly netted off those who would be newly impacted with those that would be newly removed, which disguises the true level of impact on those newly affected¹⁸.

5.37 Evidence from recent airspace trials at Heathrow and Gatwick shows very clearly that that newly affected populations are likely to be highly sensitive to and aggrieved by airspace changes, whereas those that stand to benefit, whilst probably welcoming the relief, will not necessarily support the removal or reduction of flights so enthusiastically because of some degree of habituation.

5.38 It is perhaps for these reasons that, as we understand it, the Government attaches considerable weight to legacy airspace arrangements when considering airspace changes.

5.39 Experience at the major London airports over the last 15-20 years provides substantial evidence that even subtle changes to established aircraft routes are highly controversial. For this reason, successive Governments have preferred stability in flight routings and

¹⁸ Paras 4.297 to 4.302 Gatwick's Response to Airports Commission Consultation 3rd February 2015 and Section 2.7 of our supporting Noise Technical Report prepared by ERM

hence on populations overflowed. Yet, the Commission's Final Report gives little weight to the scale of airspace change that would be necessary or to the impact of that change on people overflowed.

- 5.40 The Commission suggests that the proposal for mixed mode operations at Gatwick may render the process of airspace change particularly contentious because it would inhibit respite from runway alternation (Final Report 11.40). However, a third runway at Heathrow, whatever option is preferred, will likely be much more contentious as it will change existing flight paths and open up new flight paths over London. Whilst we do not underestimate the sensitivity of the situation at Gatwick, the areas affected are of much lower population density than the areas of London affected by Heathrow.
- 5.41 The measures proposed by the Commission do not materially alter the noise impact of Heathrow's operations, nor will they reduce the very significant numbers of people affected for the first time.

Conclusions on noise

- 5.42 In weighing the benefits and disbenefits of a major airport development, the impacts of aircraft noise are one of the most important factors to consider in relation to expansion. For many people it will be the most important factor.
- 5.43 It is imperative that the evidence base contains the right information and applies the right tests. Compliance with established Government policy is, in Gatwick's view, a test which should be core to the decision making process. Yet, despite the clear Government policy on noise the Commission has recommended the high noise option.
- 5.44 Having reviewed the evidence provided here (and in Gatwick's previous submissions to the Commission) we believe that:
- the Commission's Heathrow recommendation is not compatible with Government policy on noise;
 - Gatwick R2 is the best aligned with Government policy by some considerable margin;
 - the errors and omissions in the Commission's analysis understate the extent to which Gatwick R2 is best aligned with policy and the Heathrow options are not;
 - the Commission has been mistaken in its approach to comparing the noise impacts of the scheme options;
 - these weaknesses have led the Commission to attach too little weight to noise in reaching its overall recommendation.

6: “Measures to ensure acceptable air quality would make Heathrow expansion more acceptable”

Has the Commission recognised fully that air quality is a key issue?

- 6.1 Air quality has to be a key determinant of the location of any new runway. It is a vital consideration based on its impact on human health, and it is an essential requirement that air quality does not breach legally binding limits.
- 6.2 The Commission has adopted a flawed legal approach to the assessment and reached the erroneous conclusion that it would be lawful for Heathrow NWR to be constructed and operated, rather than recommend the scheme which can lawfully be delivered and which would have clearly the lowest impact upon human health.
- 6.3 Furthermore errors and omissions in the Commission’s assessment methodology, taken together, serve to reduce the apparent air quality impact of the Heathrow scheme, and accordingly lead the Commission to say that “The Commission therefore places limited weight on suggestions that air quality represents a significant obstacle to the delivery of expansion at Heathrow¹⁹”.

Has the Commission interpreted the law correctly?

- 6.4 The Commission has based its recommendation on an incorrect interpretation of the legal obligation on Government to comply with the Air Quality Limit Values. The Commission’s interpretation is most clearly expressed in the Consideration of Air Quality Consultation Responses (CAQCR)²⁰ document at paragraphs 23 to 25.
- 6.5 The Commission’s interpretation relies on Highways Agency Interim Advice Note 175/13, which predated the Supreme Court decision of April 2015. The Commission acknowledges its reliance on IAN/175/13 (at paragraph 23) in its consideration of the points raised by Gatwick and others during the Commission’s Air Quality Consultation²⁰. It should be noted, however, that IAN 175/13 simply sets out a methodology for assessment and does not provide any legal justification for this approach.
- 6.6 The Commission’s position relies on an assumed failure to improve air quality more quickly along Marylebone Road than at Heathrow. It also implies that the only location in London where air quality represents a constraint to development is Marylebone Road, so long as it remains the worst location within the zone.
- 6.7 If the Commission’s interpretation is correct, the ramifications are serious, since it would allow air quality conditions in all areas throughout London to deteriorate so long as they are not worse than the worst within the zone.
- 6.8 The Commission’s interpretation is in fact contrary to EU Directive 2008/50/EC which requires Member States to ensure that Limit Values are attained “*throughout their zones*” (Article 13(1)).

¹⁹ Airports Commission: Consideration of Air Quality Consultation Responses (CAQCR), July 2015 Para 9.93

²⁰ Airports Commission: Consideration of Air Quality Consultation Responses (CAQCR), July 2015.

- 6.9 Recital (1) of the 2008 Directive states that there is a: “... need to reduce pollution to levels which minimise harmful effects on human health, paying particular attention to sensitive populations, and the environment as a whole ...”
- 6.10 Recital (9) states: “Air quality status should be maintained where it is already good, or improved. Where the objectives for ambient air quality laid down in this Directive are not met, Member States should take action in order to comply with the limit values and critical levels, and where possible, to attain the target values and long-term objectives.”
- 6.11 Article 23(1) provides: “Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit value or target value, plus any relevant margin of tolerance in each case, Member States shall ensure that air quality plans are established for those zones and agglomerations in order to achieve the related limit value ...”
- 6.12 In the event of exceedances of those limit values for which the attainment deadline is already expired, the air quality plans so prepared by the Member State shall set out appropriate measures, so that the exceedance period can be kept as short as possible.
- 6.13 In our view the correct interpretation is that there is a legal duty to achieve compliance with the limit value “*throughout*” the Greater London Zone as quickly as possible. It is only if this interpretation is adopted that:
- i. Pollution is reduced everywhere within the Zone as quickly as possible; and
 - ii. Air quality is maintained or improved.
- 6.14 On this basis, any decision based on the Commission’s recommendation will be susceptible to legal challenge, not only in the UK but also in Europe.
- 6.15 And, on this basis, it would be unlawful on air quality grounds alone for a third runway at Heathrow to come forward. Air Quality therefore remains a fundamental barrier to expansion of Heathrow.

Has the Commission assessed air quality impacts correctly?

- 6.16 The Commission’s analysis confirms Gatwick’s assessment that Gatwick R2 can be delivered without exceeding the legally binding air quality Limit Values whereas Heathrow NWR is expected to breach these Limit Values.
- 6.17 The Commission’s methodology contains a series of weaknesses and omissions which we set out below:

The absence of an assessment of construction impacts

- 6.18 There is no distinction drawn between construction and operation in the legislation – Air Quality Limit Values must be complied with at all times. Gatwick submitted evidence to the Commission in its Air Quality consultation response which demonstrated that Air Quality Limit Values would be breached very significantly during the construction phase at Heathrow²¹. This omission and those set out later in this section represent a major risk to delivery of another runway at Heathrow.

²¹ Gatwick Airport Limited: Response to Airports Commission Air Quality Consultation, May 2015.
Arup: Air Quality Assessment of Construction of Proposed Runway 3, March 2015 (Appendices 2 and 3 of Gatwick response).

No assessment of diverted highways

- 6.19 The Commission failed to assess air quality on the realigned section of the A4 for Heathrow NWR despite air quality near that road being the principal reason for rejecting Heathrow ENR. As the diversion of the A4 is one of the major off-site effects of Heathrow NWR, air quality there should have been considered.

Reliance on speculative Mitigation Measures

- 6.20 Putting to one side our belief that the Commission's legal interpretation of the Air Quality Directive is wrong, the Commission relies upon untested and unassessed mitigation measures that it has devised to justify its view that Heathrow NWR is not the worst within the zone or agglomeration.

Failure to assess the worst case traffic

- 6.21 The Commission maintains that it has assessed the worst case traffic scenario at Heathrow but this is not supported by the air traffic and surface access evidence²², with direct implications for the validity of the air quality assessment.

Wrong assessment year

- 6.22 The Commission has not assessed the opening year of Heathrow NWR, which is likely to be the worst case. The Commission's response on this point is misguided (para 33 of the CAQCR).

Overly optimistic assumptions on improvements to background air quality levels

- 6.23 The air quality improvements anticipated in the Heathrow area by previous Governments have not materialised. Despite this, the Commission relied on an optimistic assessment methodology. Highways England requires a more cautious methodology²³ to be applied when a major road scheme is being promoted, and this is standard practice. A similar approach should have been adopted by the Commission.
- 6.24 In 2009, the then Secretary of State for Transport supported a third runway at Heathrow on the basis of a set of assumptions on future air quality around Heathrow. In practice, these assumptions turned out to have been grossly over-optimistic and, in some places around Heathrow, air quality became worse rather than better. It would be wrong in Gatwick's view to repeat the approach taken in 2009 as future improvements cannot reliably be assumed.

Gatwick modelling error

- 6.25 The Commission's modelling of the effects at Gatwick Receptor 2R-K were overstated.
- 6.26 It should also consider the Commission's continued use of monitoring data that Crawley Borough Council, in its submission to the Commission's consultation, makes clear should not be used owing to faults with the monitor during 2014.

Flawed model verification process

- 6.27 Gatwick has submitted evidence to demonstrate that the Commission's model systematically underestimates concentrations at Heathrow and overestimates those at Gatwick, which has led to bias in the comparative analysis (see Tables 4.1 and 4.2 of Gatwick Response to Airports Commission Air Quality Consultation).

²² The Low Cost is King (LCiK) scenario represents the worst case - see paragraph 6.47 of Gatwick response to consultation.

²³ As set out in Highways England Interim Advice Note 170/12v3: Updated air quality advice on the assessment of future NO_x and NO₂ projections for users of DMRB Volume 11, Section 3, Part 1 'Air Quality

No assessment of the impact of relocating the Energy from Waste (EfW) plant

- 6.28 The Commission confirms that it has not assessed the impact on air quality of relocating the Lakeside EfW facility, suggesting that it would be unreasonable to do this (para 35 CAQCR). Normal practice would be to assess the major sources of emissions when undertaking an air quality assessment of this type.

No assessment of freight traffic

- 6.29 The Commission's analysis of freight shows that it will result in traffic being 'substantially increased' on the South Perimeter Road and A4 Bath Road, yet this change is omitted from their air quality assessment (Freight Impact Study 2.2-2.4 and para 4.2.7), meaning that there is a significant under assessment of air quality impacts.

Is the Commission right to place so much reliance on the Air Quality Plan which Government is due to submit before the end of 2015?

- 6.30 The Commission's recommendation relies, inter alia, on the Air Quality Plan that the Supreme Court has required Government to prepare by the end of 2015 to resolve wider air quality problems in accordance with the requirements of the Directive.
- 6.31 This is an unreliable basis for a recommendation because:
- it cannot be yet assumed that the plan will be able to meet the requirements of the Directive;
 - it will take a further 18 months (i.e. mid-2017) at least before the European Commission accepts or rejects the plan, and so it cannot be assumed that an approved plan will exist within the timeframe of the Government decision; and
 - the plan (when it exists) may well be open to further legal challenge.
- 6.32 The air quality problems around Heathrow and throughout London have been known for a very long time, yet no effective plan has yet been prepared, and no reliance should be placed on any such plan before it has been formulated and its efficacy can be assessed.

Is the Heathrow NWR scheme deliverable with the measures proposed by the Commission?

- 6.33 The Commission suggests a legally binding planning condition which would prevent the release of additional airport capacity at an expanded Heathrow until it is clear that the air quality at sites around the airport will not delay compliance with EU limits (paragraphs 9.89 and 14.113 of its final report). Given the importance of complying with the Limit Values in order to protect people's health, it is very important that such a condition is applied if a third runway at Heathrow is to come forward. Any such condition must, however, be legally binding, and clear and fully effective in achieving its purpose.
- 6.34 If we are correct in our legal interpretation, i.e. that limit values must be complied with everywhere throughout the zone in as short a time as possible, the Commission's evidence makes clear that Heathrow NWR cannot legally be in operation in 2030.
- 6.35 In Gatwick's view a privately financed Heathrow NWR is unlikely to be deliverable in these circumstances, since this risk cannot be fully controlled and managed by the airport. Also,

given that the consequence of failing to meet these targets would impose severe financial penalties, the risk of failure, coupled with the risk of a substantial loss of operating revenues associated with restricting capacity, could place intolerable stress on Heathrow's financing.

- 6.36 An alternative scenario could involve the Government guaranteeing a significant proportion of Heathrow's debt, assuming this was compliant with State Aid rules. In that instance, and assuming a delay of three years in meeting EU air quality limits, the Government would be underwriting circa £2 billion of lost operating revenues as a result of withholding new capacity. Given the availability of Gatwick R2 as an alternative that is not constrained by any such restriction, such Government involvement would not be appropriate.

Would the measures proposed by the Commission make Heathrow expansion more acceptable to local communities?

- 6.37 Air quality has to be a key determinant of the location of any new runway. It is a vital consideration based on its impact on human health, and it is an essential requirement that air quality does not breach legally binding limits.
- 6.38 Based on everything that is known today, there is no evidence to suggest that the requirements of the Air Quality Directive can be met in the Heathrow area. The Government's new Air Quality Plan will presumably seek to address this issue for all relevant parts of the country, but it will be some years before it is known whether the plan is acceptable to the European Commission and whether it has withstood the likely legal challenges, and probably many more years before the effects of this Plan can be assessed with confidence.
- 6.39 Improvements in air quality conditions that were assumed in 2009 by a previous Secretary of State for Transport have not materialised and instead the situation at some monitoring sites around Heathrow has got worse. DEFRA's own modelling suggests that exceedences will continue beyond 2030 even without a new runway at Heathrow.
- 6.40 In these circumstances it is unlikely that the measures proposed by the Commission will make the air quality impacts on human health in the Heathrow areas any more acceptable locally in the future than they are today.

Conclusions on air quality

- 6.41 The Commission's analysis shows that exceedences of legally binding Limit Values will continue beyond 2030 at Heathrow, and that a third runway and associated activities will add to emissions in the Heathrow area.
- 6.42 In summary:
- the Commission's interpretation of the law in respect of compliance with Limit Values is incorrect;
 - if errors and omissions in the Commission's analysis are remedied, the results will show that the situation at Heathrow is likely to be even worse than currently assessed;
 - the most optimistic way forward is an Air Quality Plan that may be approved in 2-3 years' time and shows that the air quality problems at Heathrow can be eliminated at some time in the future, but less optimistic outcomes are arguably much more likely;
 - the above considerations present material risks to delivery of new runway capacity, when there is general acceptance that swift and decisive action is needed.
- 6.43 The Commission's analysis confirms that a viable alternative exists in Gatwick R2 which will not breach air quality limits. Therefore, having reviewed the available evidence on air quality, we conclude that only Gatwick enables runway development to proceed without material risk of delay or cancellation due to air quality concerns.

7: Deliverability

The Commission's findings on deliverability

- 7.1 The Commission agrees that there are no overriding environmental or other reasons to doubt that Gatwick R2 could be delivered in the 2025 timescale proposed by Gatwick.
- 7.2 However, although the Commission suggests that Heathrow NWR is deliverable by 2026, the considerable challenges facing Heathrow have not, in our view, been robustly considered. The Commission has outlined a quantum of work relating to Heathrow NWR that includes on-going CAPEX works, on-going maintenance works, the newly planned Heathrow NWR works, and the related surface access works, which industry experts have assessed as not being capable of delivery within the timescales envisaged.

Have risks to delivery been robustly considered?

- 7.3 Any policy relating to nationally significant infrastructure should be grounded in a realistic assessment of its deliverability. This issue is particularly relevant to the decision-making process given the history of failed attempts to secure new runway capacity in the South East and the general consensus that swift action is now necessary.
- 7.4 Deliverability therefore needs to consider all stages of the process:
- obtaining (and also maintaining) policy support for the project through at least one Parliamentary cycle and possibly two – a period of up to 10 years;
 - obtaining planning permission either through a Development Consent Order (DCO) or Hybrid Bill; and
 - delivery risks throughout the construction period.
- 7.5 Given this, great importance should be attached to :
- securing and maintaining policy support, without which tens of millions of pounds will be wasted;
 - the likelihood of, and timescales for, gaining consent through the planning process – a process which can still fail, even with the support of a National Policy Statement, if key issues have been glossed over at the policy setting stage;
 - evaluating the likelihood of and barriers to securing finance and, where necessary, the approval of the Economic Regulator;
 - the challenges of the construction period, based on a thoroughly analysed execution programme, but also a clear and unambiguous understanding of risk.
- 7.6 The Commission has recommended Heathrow NWR subject to eleven measures to protect the local community (pages 11-12) – it remains to be established whether these measures are realistic and acceptable to Heathrow. If they are not, the Commission's package of recommendations in their totality fall away, and it cannot be known what scheme the Commission would have recommended in these circumstances.
- 7.7 The implications for programme, cost and the risk of non-delivery of the following risks to delivery should be considered:

- less capacity at Heathrow than the Commission has assumed, as set out earlier;
- lack of clarity regarding the noise and other environmental effects;
- hoped for solutions to air quality that in the event do not come about, resulting in legal duties in respect of air quality not being complied with;
- no satisfactory resolution being found to cost programme and financeability risks; and
- an overly optimistic assessment of the cumulative risks to delivery caused by failure to draw together the various strands of risk to which we have drawn attention.

Have risks to achieving development consent when scheduled been fully assessed?

- 7.8 A DCO or Hybrid Bill to take forward Heathrow NWR will have to resolve difficult issues relating to a wide range of environmental impacts. It is not clear at present that this scheme is capable of receiving consent, given the gaps and errors in the Commission's analysis that Gatwick believes currently exist.
- 7.9 At an early stage the Government is required to undertake an Appraisal of Sustainability and a Strategic Environmental Assessment (SEA) prior to drafting a National Policy Statement (NPS).
- 7.10 There is a requirement in SEA to examine "reasonable alternatives". This will have to include an examination of the potential for development at other airports, particularly Gatwick R2. The scope of such an NPS is not clear currently but the method by which these studies would be undertaken would be consistent with best practice and would reveal the shortcomings of the Commission's methodology for environmental assessment that we have identified earlier in this paper.
- 7.11 Such analysis is likely to produce different results from the Commission's and would cast doubt on the validity of its recommendations. In Gatwick's view this is an important legal consideration. The adoption of an NPS is a matter that can also, of course, be the subject to challenge by way of Judicial Review.
- 7.12 Even if an NPS were to confirm policy support for another runway at either Gatwick or Heathrow, it does not automatically follow that DCO consent would be given. Although the principle of another runway would not be open to question during the remaining stages of a DCO process, the various assessments of economic benefits and environmental effects along with the requirements and obligations entered into under S106 of the Planning Acts would all be subject to much more detailed and rigorous scrutiny and review by the Panel of Inspectors appointed to examine the DCO application and make recommendations to the Secretary of State as to whether consent should be granted.
- 7.13 The Panel will want to understand any differences of assessment compared to the basis on which policy was set. They will also test whether the proposal is aligned with relevant Government policies such as those related to noise and air quality. And if the Panel has good reason to believe that the proposal is not compliant (for example in relation to the Air Quality Directive) it should be expected that the Panel would recommend refusal.
- 7.14 The amount of weight given to harm by the Commission in reaching its recommendation was presumably predicated upon an assumption that the 11 measures proposed by the Commission for the Heathrow scheme would be in place. Heathrow has not yet accepted these measures, nor has it been demonstrated that these are workable. If any of the

measures are not in place at the time the NPS is drafted, then the harm will be greater than the Commission assumed.

- 7.15 When assessing the prospects for deliverability during the planning (DCO) phase, the differences of scale between the likely significant environmental and other effects of Gatwick R2 compared to the Heathrow options should be reviewed, including:
- the air quality assessment, including construction impacts, and the question of whether there could be compliance with the Directive;
 - the noise assessment and its compliance with Government policy on noise;
 - whether the changes to airspace are deliverable;
 - whether the impact on water courses as a result of combining and culverting the twin rivers could gain the approval of the Environment Agency, and more generally whether compliance with the Water Framework Directive could be achieved;
 - whether the Habitats Directive could be complied with;
 - whether the economic benefits assessment undertaken by the Commission stands up to scrutiny or whether the Panel might take a different view of the balance of benefits to disbenefits;
 - the impact on the cost, programme and environmental effects of relocating the Energy from Waste plant and the impact of dealing with the extensive areas of landfill (including a detailed assessment of whether the landfill is to be left in situ, removed, treated and put back into the existing site, or whether replacement landfill sites are to be found);
 - the disruption and wider impacts of the surface access schemes at Heathrow including:
 - (a) the M25 tunnel and widening;
 - (b) widening the M4;
 - (c) diverting the A4;
 - (d) local roads improvements;
 - (e) a Congestion Charging scheme; and
 - (f) a Western Rail link and a Southern Rail link (including the cumulative effect of these schemes).
- 7.16 Even if a third runway at Heathrow received DCO consent, it is highly likely that a significantly longer time would be taken to navigate the DCO process compared to Gatwick R2.
- 7.17 In the light of all of these uncertainties we recommend that the safeguarding for a second runway at Gatwick should be maintained, in order to protect against the clear possibility that a third runway at Heathrow proves to be undeliverable.

Is the quantum of work required for Heathrow NWR feasible in the timescale proposed?

- 7.18 The Commission's Final Report does not address the risks arising from the unprecedented scale of construction activity required to deliver the Heathrow options in the delivery timescale proposed. Between 2023 and 2025 Heathrow NWR requires as much as £6.76 billion to be spent each year on average (Scheme, Core, Surface Access and Asset Replacement CAPEX). This is an average spend of over £560 million per month, where T5 only achieved a maximum spend of £85 million per month. Neither Heathrow nor the Commission present any evidence of how this scale of expenditure could be managed in practical terms and actually delivered.
- 7.19 The Gatwick Response to Consultation stated, "The Commission should undertake a further detailed analysis of the forecast expenditure profiles. This would include analysis of the ability of project sponsors to manage and safely deliver the CAPEX spend required to meet the programme". (Gatwick Response to Consultation, Response to Q4 & Q5, section 4.799). The Commission does not appear to have done this.
- 7.20 The superficial assessment by the Commission of the complex challenges of construction at Heathrow does not accurately portray the scale of construction impacts associated with Heathrow NWR, many of which are outside the control of the promoter, and are such that they pose serious impediments to the likelihood of obtaining planning consent (even if it is supported by an NPS). If consent is given, the risks to cost and programme will still be very considerable due to the scale, complexity and cumulative effects of construction.
- 7.21 These risks arise from:
- putting the M25 (a motorway subject to a long term DBFO concession) into tunnel and widening it;
 - diverting the A4;
 - widening the M4 (another motorway subject to a DBFO concession);
 - the need to improve junctions across West London;
 - the Southern rail link, which has been assessed and cancelled multiple times on feasibility grounds;
 - construction of T6 while maintaining access to T5;
 - the impact of construction traffic over an extended period of time on M4, M25 and the local road network;
 - determining and delivering a solution for the 9 million tonnes of landfill on the site (location, treatment and environmental effects);
 - determining and delivering a solution for the existing EfW plant – a third party asset subject to long term contractual obligations (location and environmental effects);
 - new airspace designs – assessing the impacts, consulting on the alternatives and finding a solution;
 - defining and implementing a Congestion Charging scheme, the implications of which are not known but which may impact on demand for air travel and which could have implications for non-airport related users of the airport.

- 7.22 All of the preceding points support the conclusion that delivery of the quantum of work required for Heathrow NWR is not feasible in the timescale proposed.

What are the implications of risks for programme, cost and delivery of each scheme?

- 7.23 The Commission has not fully assessed, or responded to, Gatwick's evidence on deliverability submitted as part of consultation, but maintains a 2026 opening date for Heathrow NWR.
- 7.24 The Commission states that no evidence was submitted regarding the risks to delivery of Heathrow NWR by 2026, despite the fact that Gatwick submitted a detailed assessment of deliverability (Appendices 28 & 31 to our Response to National Consultation) confirming that there is a significant risk that Heathrow NWR could not be available until at least 2030.
- 7.25 The Gatwick Response to Consultation states, "the Commission should carry out a robust and standardised review of the design, planning, construction and other risks associated with all three schemes. Such a review would show that there are substantial risks inherent in the Heathrow schemes" (Gatwick Response to Consultation, Response to Q4 & Q5, section 4.790). We have seen no evidence that the Commission has carried out such a review.
- 7.26 Appendix 28 of the Gatwick Response to Consultation stated, *"In summary the Heathrow North West Runway scheme carries significant delivery risk. The quantified risk analysis gave a forecast completion date of April 2029, which assumes a commencement of the DCO preparation in 3Q2015 and no programme delays for the NPS process or judicial reviews prior to the commencement of the construction works. We consider that the level of enabling works is unprecedented for a scheme in the UK, and that the risk associated with the planning and consents process is significant to the extent that there is a risk of project completion occurring after the 2030 runway capacity requirement date"*. (Bechtel: Review & Commentary on Module 16: Delivery)
- 7.27 Appendix 31 of the Gatwick Response to Consultation stated, "On review of the evidence presented in HAL's Technical Submission (May 2014) documents to the Commission, there is zero probability of achieving the stated 2025 runway opening date and a P80 'industry norm' date of April 2029. The earliest date in which the new runway could be realistically opened is September 2029". (EC Harris Heathrow NW Runway Critique 1.1 Overview)
- 7.28 The implications of the materially higher risks facing Heathrow NWR are that the project is likely to experience programme delays and cost overruns. At worst, there is a risk that the project does not proceed at all, with the result that the economic benefits linked to expansion are seriously delayed or not achieved.
- 7.29 The Commission expressed the view that the Heathrow schemes "are slightly more challenging construction projects...but there are still ample precedents for projects of that nature and scale"²⁴. We consider that such comments are superficial and grossly underplay the risks attaching to expansion at Heathrow.

²⁴ Airports Commission Final Report – para 11.39

Conclusions on deliverability

- 7.30 There is a broad consensus that swift action is necessary to provide new runway capacity in South East England. However, the Commission did not undertake a thorough analysis of the risks to delivery of the schemes shortlisted by the Airports Commission. This needs to be done in a much more thorough and granular way than was undertaken by the Commission, and should encompass all delivery aspects described in this section.
- 7.31 Each component of delivery should be reviewed for each of the shortlisted schemes, and a balanced comparative assessment should be made of:
- the cumulative impact and interdependency of these factors;
 - the comparative complexity of the schemes;
 - the dependencies between these delivery factors.
- 7.32 The following should then be considered:
- whether each scheme can in fact be delivered;
 - at what cost;
 - and in which timescale.
- 7.33 Such a robust assessment would enable a robust and defensible decision to be made about which scheme should receive policy support.
- 7.34 It is our strong view that, when risks are fully taken into account, the overall balance of benefits to disbenefits clearly indicates that Gatwick R2 represents the best option.

8: Gaps and omissions

Was the Commission correct in not taking into account the material differences in commercial terms and risk allocation between the Gatwick and Heathrow options?

- 8.1 As we set out in the previous section, the Commission has not carried out a robust analysis of delivery risks for each of the schemes. This shortcoming is exacerbated by the fact that it has not considered differences in commercial terms and risk allocation between the Heathrow and Gatwick options. There is therefore an inadequate basis in the Commission's work to assess financeability, as the quantification of risks and determining who is to bear those risks is fundamental to any such assessment.
- 8.2 Given the importance of these issues to passengers and taxpayers, the commercial and risk allocation proposals of the schemes is a central issue for consideration.
- 8.3 Gatwick has proposed a long-term framework of binding undertakings in relation to investment in the airport including required surface access infrastructure. This proposal should have significantly altered the assessment of the commercial advantages of Gatwick R2 relative to the Heathrow options.
- 8.4 Gatwick's proposed framework is an extension of the successful concept that exists today. The proposal is for a binding set of obligations which commits Gatwick to delivering a new runway and appropriate infrastructure by 2025, while meeting appropriate service standards and setting airport charges within defined limits.
- 8.5 By establishing this long term certainty, Gatwick is then able to assume the majority of the risk associated with a new runway development, which includes long-term traffic, market price, and construction risks.
- 8.6 The proposed framework is, we believe, an important and relevant part of the overall scheme proposal by Gatwick. The proposals are particularly relevant to the affordability and financeability of Gatwick R2 relative to the Heathrow options. The proposals offer important benefits to passengers and taxpayers, and are well aligned with the CAA's initial proposals for economic regulation of new runway capacity. The Commission, however, has largely ignored Gatwick's Commitments proposals – leaving them to be considered by the CAA, as economic regulator, at some later stage. We consider that this failure to assess such an important and relevant part of Gatwick's overall scheme proposal is a serious omission in the Commission's assessments.
- 8.7 Gatwick's proposals offer a clear and transparent set of principles around risk allocation. Similarly, we note that similar clarity and transparency around risk allocation was not established by the Commission in relation to Heathrow. The fundamental differences on risk ownership between the two schemes should have been clearly evaluated. The Commission has not undertaken such an evaluation. Under the RAB based approach assumed for Heathrow, users and/or taxpayers will bear a significant proportion of key projects risks, as well as long term traffic risk.
- 8.8 The commercial propositions for both schemes should be assessed side-by-side so that the differences in approach to risk can be evaluated.

Is the Commission's use of a central demand scenario correct, and has the use of this case limited the validity of financiers' views on financeability of the schemes?

- 8.9 Although the Commission stated that the Assessment of Need scenario should not be viewed as its central case, the majority of its commercial viability analysis is focussed around this scenario and the Commission's public comments have referred to it in these terms. It must, however, be noted that this analysis does not assume that any surface costs are included. Surface access costs are only treated as a sensitivity, thus severely underplaying the funding needs of Heathrow NWR.
- 8.10 The Commission's project briefing note for the Funding Roundtable in March 2015 presented phased funding graphs of debt and equity requirements from the AON-carbon capped case only. The views and considerations of financiers captured by the Commission in the Cost and Commercial: Sources of Finance document (Cost and Commercial Viability: Sources of Finance, Appendix 3, Round Table Briefing Note, Page 70) should therefore be treated with caution, as they do not reflect the full funding requirements.

Was the Commission correct in leaving unresolved the question of who pays for a number of the required surface schemes?

- 8.11 The question of who pays for a number of the surface access schemes for the Heathrow options has been left unresolved. It is therefore unclear who carries the financial, programme and other risks associated with these significant projects amounting to some £5 billion in value and potentially much more. The following important points should be considered:
- how surface access improvements will be funded (Cost and Commercial Viability: Funding and Financing Update, section 3.3 and Tables 11 & 12, July 2015 state that "HAL has suggested that surface access infrastructure outside the airport would be funded by the Government.")
 - the impact of each scheme on other public transport schemes being delayed or cancelled and users suffering unacceptable congestion or crowding (Surface Access: Dynamic Modelling Report – Heathrow Airport North West Runway, para 6.6.8)
 - whether the Commission has correctly stated the long term costs of surface access mitigation for Heathrow by omitting the cost for mitigation required beyond 2030, despite identifying significant crowding and congestion as a result of expansion. (Surface Access: Dynamic Modelling Report – Heathrow Airport North West Runway, para 4.8.1 and 5.8.3)
 - whether costs should be included for additional rail capacity requirements, needed as a result of a proposed congestion charge which moves trips from road to rail (Crossrail, Piccadilly line and Southern Rail Access – all of which will be overcrowded by 2030), and therefore does not include these in the business case. (Surface Access: Demand Management Report, para 4.2.12 and 4.2.13)
- 8.12 The Commission has not included any surface access costs in the overall business case assessment of its central case (Assessment of Need). We believe that this omission must

be remedied, as it distorts the resulting airport charges calculation, and materially understates Heathrow's charges (Cost and Commercial Viability: Funding and Financing Update, section 3.4.5).

Has the Commission considered adequately the implications for each scheme of risk in relation to financeability, and in relation to the charges which users would have to pay?

- 8.13 The Commission's assessment does not adequately reflect the relative difference in the scale and nature of the risks facing the Heathrow and Gatwick schemes, and the impact of these materially different risk profiles on deliverability.

Construction complexity

- 8.14 We have described earlier the complexity of constructing a third runway at Heathrow: extensive landfill removal and remediation; relocation of the Grondon Energy from Waste plant; diverting the M25 and A4; extensive underground construction for baggage, rail, road, and transit systems. In contrast, Gatwick R2 offers simplicity of engineering design and construction, supported by well progressed technical plans.
- 8.15 Financiers will place significant weight on the construction complexity of the schemes. We believe any downside scenarios considered by the investment community will be reflective of Heathrow's construction challenges, and they will find that the scheme has a high likelihood of significant cost escalation.

Delivery risk inherent in the capital expenditure profiles

- 8.16 Gatwick R2 has a realistic and manageable profile with annual scheme expenditure peaking at circa £680 million (or £50 million per month in the peak year) and is more evenly spread through a phased programme across an extended period. In contrast, Heathrow NWR involves an unprecedented rate of spend and scheme expenditure that peaks at over £3 billion in each of several years (or over £6 billion per annum when including scheme, surface access, core, and asset replacement). The number of project interdependencies in Heathrow's programme is significant. More interdependencies will mean greater risk of programme slippage and ultimately a delay in the programme delivery date.
- 8.17 Even after considering these points, the Commission has determined similar proportions of project risk between the two schemes. We believe financiers will take a very different view. As standard protocol, the finance community will run delay scenarios in their financing projections to take into account the programme risks. The impact of delay on both the effect on the national economic benefits, as well as any stress it places on financing, should be fully reviewed.

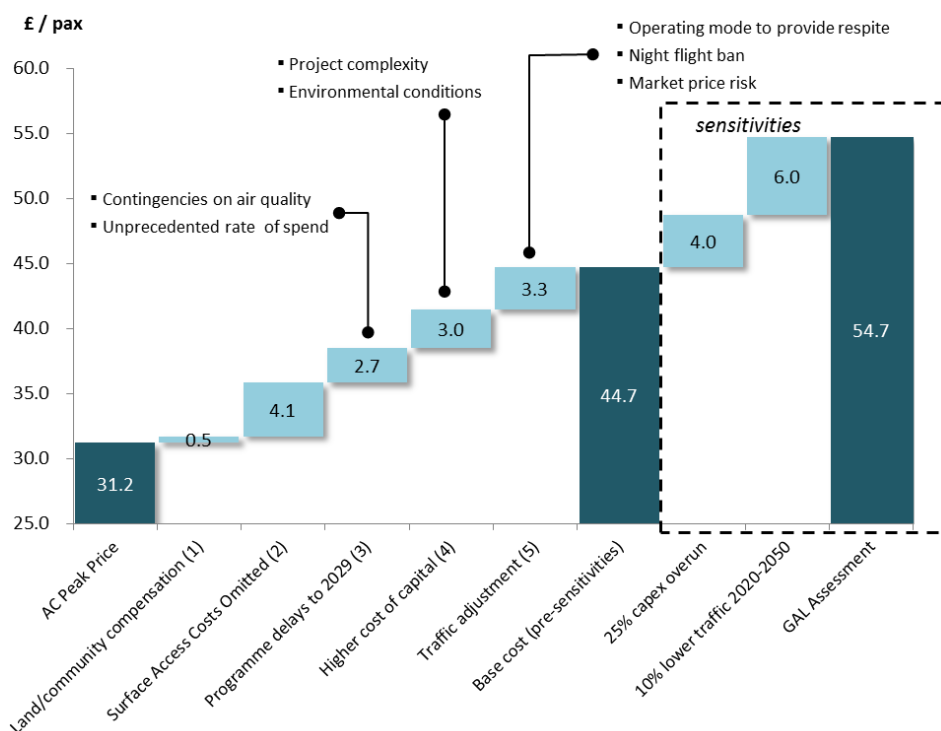
Environmental risks

- 8.18 Financiers will need to consider the Commission's proposed environmental conditions relating to air quality, noise, respite from noise and night flight bans. The air quality condition reinforces the need to review the impact of delay for Heathrow NWR, and review whether the other conditions are also likely to impose limits on capacity, and consequently operating revenue. Having reviewed the evidence and taken into account the impact of delay, this would translate into higher funding costs than have been assumed.

Traffic and market price risks

- 8.19 The Commission contends that the impact of airport charges and consequent treatment of airfares have been taken into account both in its traffic forecasts and in the OECD report “Review of Airports Commission Forecasts and Scenarios”. Gatwick has found little evidence that this is the case.
- 8.20 This is particularly important given the assumption that Low Cost carriers and price sensitive transfer passengers would use an expanded Heathrow despite the considerable rise in airport charges required to fund a third runway. The Commission’s analysis does not appear to take into account that much higher airport charges (including those related to Heathrow’s share of road and rail infrastructure costs) will have the effect of reducing demand for air travel at Heathrow. Nor does it take into account subsequent remarks by Heathrow that a complete night ban would influence its commercial judgements. This is a serious shortcoming in the forecasting methodology.
- 8.21 Gatwick R2 has a modular and phased approach to its scheme that allows Gatwick to pace its investment in line with traffic growth. This significantly de-risks the project and enhances its financeability. Given Heathrow’s heavy upfront expenditure on residential/commercial property acquisition, surface access, site preparation, and land remedial work, it is not possible to phase its scheme in any significant way.
- 8.22 If downside risks on construction and long-term traffic materialise for Gatwick, our proposed binding undertakings would ensure that Gatwick bears this risk and caps airport charges at £15 per passenger. In contrast, under Heathrow NWR users and/or taxpayers will take substantially all of the downside risk.
- 8.23 Gatwick has sought to assess the realistic level of Heathrow’s airport charges, and some of the risks highlighted above have been crystallised in these more realistic charges, as shown on the following page. We also seek to demonstrate the consequences when realistic downside scenarios are applied, and the impact this would have on airport charges and thus on airport users.

ASSESSMENT OF HEATHROW NWR AERO CHARGES



Adjustments: (1) Airport charges impact of additional land and compensation costs was evaluated by the Commission in Cost and Commercial: Additional sensitivities. (2) Surface access costs (including operating costs and asset replacement) have been included at £5.7 billion, as identified by the Commission. (3) Gatwick's consultants EC Harris have assessed the runway opening date of Heathrow's programme at 2029, which adds an additional £0.8 billion of construction phase costs. (4) Heathrow's cost of equity has been increased by 200 basis points, to reflect a more realistic requirement for return on equity. (5) Traffic adjustment assumes a lower ramp-up post opening of runway and a lower overall capacity level of 118 million passengers per annum, supported by analysis by DFS.

8.24 Gatwick's assessment indicates that charges with Heathrow NWR could increase to well over £40 per passenger with a third runway. Realistic downside scenarios could see airport charges rising in excess of £50 per passenger. Financiers will need to be convinced that sufficient demand exists for Heathrow NWR at these levels of airport charges. We do not think that they will reach the same conclusions as the Commission, who imply that high airport charges at Heathrow will not be an issue for full service carriers such as British Airways and that there is appetite for low cost carriers to operate there, as such changes would involve only a relatively small percentage increase of the overall ticket price.

8.25 We question whether Heathrow will be competitive at charges in excess of £40 per passenger. The Commission's national economic benefits rely on pent up demand delivering significant traffic growth in the first few years of opening the third runway. Similarly, the Commission's analysis attributes a significant increase in jobs as a result of Heathrow having a labour-intensive transfer operation. We are not convinced that such a level of transfer demand would exist in a highly competitive and price elastic transfer market at charges in excess of £40 per passenger.

9: A fundamentally different proposition?

Is the Commission correct to emphasise that the Heathrow NWR scheme is fundamentally different from (and, by implication, better than) the Heathrow third runway scheme which the Coalition government vetoed in 2010?

- 9.1 A new point that emerged in the Commission's Final Report is their statement that the present Heathrow NWR option is a fundamentally different scheme from the one that the Coalition Government ruled out previously.
- 9.2 Whilst the present Heathrow proposals are plainly different from the previous ones, they are certainly not better, especially in terms of environmental and sustainability impacts:
- the new scheme has a longer runway than the previous scheme (3,500m now compared to 2,200m previously) and will handle much larger aircraft types;
 - the new scheme would handle more aircraft movements annually than the previous scheme (740,000 ATMs according to Heathrow compared to 605,000 initially rising to 702,000 as long as air quality Limit Values could be met in 2030);
 - the new scheme would handle some 135mppa compared to some 115mppa in the previous scheme;
 - the new scheme in 2030 impacts 237,100 people within the 57dBA noise contour while the previous scheme in 2030 impacted 206,000 people within the 57dBA noise contour;
 - the previous scheme avoided realigning 4km of the M25, including 600 metres of tunnel, did not require widening of the M4 or diverting 3.5km of the A4, and overall the surface access requirements were not of a remotely comparable scale;
 - the new scheme requires a land take of 906 hectares compared to the previous scheme which only required 530 hectares;
 - the new scheme requires the loss of 1072 residences (when the surface access impacts are included) against a loss of 700 residences for the previous scheme;
 - the previous scheme did not require rivers to be diverted, or to be placed into two 800m culverts as is required for the new scheme;
 - indicative assessments showed that with the previous scheme there would have been no significant risk of flooding downstream, while the new scheme needs an area of 441,000m² for essential flood mitigation;
 - the previous scheme did not involve the relocation of the Colnbrook Energy from Waste plant or require the treatment of 9 million cubic metres of landfill;
 - the previous scheme did not require the relocation of 1.2km of National Grid overhead power lines;
 - the previous scheme was estimated to cost between £6.7 billion and £7.5 billion against an estimated cost by Heathrow for the new scheme of £15.6 billion.

- 9.3 Most important of all, when the Labour Government in 2009 supported a third runway at Heathrow, it expected compliance with the Air Quality Limit Values before 2020. Consequently, it proposed that the number of air transport movements be limited to 605,000 initially and that this would be subject to review in 2020. We now know that DEFRA does not expect compliance to be achieved until after 2030 even with two runways. As a result, we now know that air quality conditions in the Heathrow area will not become compliant for a much longer period of time than previously thought – yet no limit on the number of air traffic movements initially is now proposed.
- 9.4 Despite this, the Commission suggests safeguards that should be imposed to achieve compliance for Heathrow NWR that are weaker than those that would have been imposed on the previous scheme. The Commission states:
- “Additional operations at Heathrow must be contingent on acceptable performance on air quality. New capacity should only be release when it is clear that air quality at sites around the airport will not delay compliance with EU limits.”*
- 9.5 This prospective test is weaker than for the previous scheme ruled out by the Coalition Government, since compliance can only be known ex-post facto and is subject to matters that are outside Heathrow’s control. Moreover, the Commission’s definition of compliance, as we have indicated earlier, is wrong in law. Continued exceedences in the Heathrow area so long as concentrations are greater in the Marylebone Road will not achieve compliance with the Directive.

Conclusion on comparison of the 2009 scheme with Heathrow NWR

- 9.6 In the light of the above, it is not possible in our view to justify the proposition that the present scheme is preferable to the previous one, since in so many material respects its adverse impacts and complexity are clearly significantly greater.

10: The overall judgment made by the Commission in reaching its recommendation

Was the Commission correct in not re-evaluating the Heathrow NWR scheme in the light of the measures proposed by the Commission

- 10.1 The Heathrow North West scheme has not been re-evaluated in light of the measures proposed by the Commission. In particular, the Cost and Commercial module should be re-assessed to take into account these recently proposed measures. We comment below on those most relevant to financeability.

Air quality

- 10.2 The most onerous condition proposed is on air quality. If the release of new capacity at Heathrow is to be contingent on compliance with EU air quality limits, then a privately financed Heathrow North West scheme is unlikely to be deliverable, since this risk cannot be fully controlled and managed by the airport. The consequence of failing to meet these targets would lead to a substantial loss of operating revenues associated with restricting capacity, and would place intolerable stress on Heathrow's financing.
- 10.3 An alternative scenario could involve the Government guaranteeing a significant proportion of Heathrow's debt, assuming this was compliant with State Aid rules. In that instance, and assuming a delay of three years in meeting EU air quality limits, the Government would be underwriting circa £2 billion of lost operating revenues as a result of withholding new capacity. Given the availability of Gatwick R2 as an alternative not impacted by any such restriction, our view is that such Government involvement would not be appropriate.

Night flights

- 10.4 The Commission proposes a ban on all scheduled night flights between 11:30pm and 6:00am. We note that the overall capacity assumed for the Heathrow North West scheme does not reflect this ban, and the effect of it on airport charges has therefore not been calculated. The traffic forecasts should be revised to take account of the restriction.
- 10.5 The indirect effects of banning night flights should also be considered, including an assessment of whether the current early morning long-haul flights (arriving during night hours) would take up later slots. Assuming all 15 long-haul arrivals currently scheduled before 06:00 transfer into the 06:00 to 07:00 period, then circa 40% of new runway capacity is already utilised in this block period, leaving little new capacity in the morning peak.
- 10.6 Since the Commission's report was published, easyJet has stated that its proposed operation from Heathrow was developed without knowledge of the proposed ban on night flights. The relevance of this announcement to the traffic forecasts should be assessed.

Noise envelope

- 10.7 A noise envelope has been suggested by the Commission that could legally bind Heathrow to stay within stated limits. The Commission suggested this could stipulate no overall increase above current levels.
- 10.8 Although this condition has yet to be fully defined, any legal obligation that could limit operating capacity and, in turn, operating revenues would be seriously scrutinised by

financiers. The targets, and the consequential effects of failure, would need to be understood in order to consider the effect on financeability.

Predictable respite

- 10.9 The Commission has stipulated that periods of predictable respite should be reliably maintained. Heathrow's proposal on how it will operate three runways, in conjunction with airspace changes, allows predictable respite to be provided, albeit for a lesser time duration than today. DFS, on behalf of Gatwick, has analysed the total capacity of Heathrow operating under this mode. They have determined that the maximum annual movements would be limited to between 580,000 and 680,000 ATMs compared to the 740,000 ATMS assumed by the Commission for their assessments.
- 10.10 The likely capacity required under respite conditions should be either validated or corrected, and sensitivity analysis carried out on lower capacity outputs if appropriate in order to understand the resultant effect on commercial viability.
- 10.11 In view of the above, the assumed capacity of Heathrow should be reduced, and the effect of such reduction be incorporated into the traffic and economic analysis.

Has the Commission set out a clear and convincing rationale for its recommendation?

- 10.12 In making major policy and planning decisions, it is almost always necessary to strike a balance between the positive and negative effects of any given proposal, and in a case such as airport expansion to weigh these effects in relation to each of the shortlisted schemes.
- 10.13 The Commission has concluded that the proposal for Heathrow NWR, in combination with a package of measures to reduce its environmental and community impacts, presents the strongest case. However, the Commission has not set out reasoned or transparent justifications for reaching this judgment: in particular, it has not made clear the approach it has taken to striking the balance between economic benefits and adverse environmental impacts. It is critically important, therefore, that when Government comes to its own view its reasoning is made transparent.
- 10.14 The Commission has not set out the rationale for its recommendation in the way that is conventionally found in similar documents of this type such as:
- National Policy Statements;
 - Planning inquiry Inspectors' reports;
 - Government decisions following an inquiry or a Development Consent Order examination;
 - Policy White Papers;
 - Previous reviews of a similar nature to the work undertaken by the Commission.
- 10.15 Relative to such yardsticks, the Commission's rationale is either opaque or completely absent. The Commission simply concludes that its assessment of the greater economic benefits associated with Heathrow clearly outweigh Heathrow's adverse environmental effects, without any clear, reasoned explanation as to how it balanced the various key factors in reaching this conclusion.

- 10.16 The Commission also concludes that a package of measures and conditions is necessary to address Heathrow's significant environmental and community impacts, and implies that these conditions will be sufficient to meet the concerns of local communities. But no explanation at all is provided as to why this should be the case.
- 10.17 Furthermore, it seems clear that, in striking an overall balance, the Commission's evaluation was undertaken without taking any account of the economic, operational and financing impacts of the series of necessary measures and conditions it proposed on pages 10 and 11 of its Final Report. In order for the conclusions reached to have been robust, particularly with respect to the overall business case, the evaluation should have been made with those measures deemed to be in place.
- 10.18 When the Government announces its decision later this year, these points need to have been considered and the Government's rationale should be transparent and clearly stated.

