Do you have any comments on the revised draft Airports NPS or any of the documents set out in the table on pages 7 and 8?



Response from the Aviation Environment Federation 19th December 2017

AEF considers that the revised Airports National Policy Statement (NPS) still fails to provide satisfactory answers to the environmental challenges associated with Heathrow expansion as identified previously in our response to the original NPS consultation. While the new evidence changes the scale of some of these impacts, we remain concerned about the impact of expansion in terms of noise, climate change and air pollution, and consider that the benefits of expansion continue to be overstated.

The consultation was presented as a minor exercise to update the NPS to reflect new evidence on aviation forecasts and the national air quality plan. In fact, the mass of documentation published by DfT on 24th October represents a near complete re-analysis of the evidence base. While the changes made in the revised NPS itself have been relatively minor, the issues that prompted the re-consultation, and the new evidence released, affect fundamental questions about whether or not the scheme is in the national interest, what environmental impact it will have, whether it can proceed legally, and whether the NPS provides the appropriate policy framing. In particular the new evidence indicates that:

- the likely noise impact, including on schools and local populations, would be significantly worse in the short term than anticipated by the Airports Commission, as a result of the new forecasts indicting that the runway would fill up very quickly after opening
- building a third runway at Heathrow could have a negative economic impact in terms of
 Net Present Value the first time the official economic appraisal has shown this
- expanding Heathrow would lead, on average to a loss of passenger growth at non-London airports
- there is a high risk that expanding Heathrow would lead to non-compliance for NO₂ under the legislation for air pollutant concentrations and would worsen likely exceedance of the National Emissions Ceiling Directive
- exceedance of the recommended maximum level of CO₂ emissions under the Climate Change Act remains likely, despite a dramatic (and poorly substantiated) reduction in the CO₂ emissions forecast compared to the last Government estimate published as recently as 2013

Making a proper assessment of what the new evidence shows, how it affects the case for a third Heathrow runway, and what changes we would expect to see in the NPS, has been a

challenging task within such a short timeframe. The comments included here present our emerging view of the material presented. We understand that the DfT has not yet published all the data on forecasts and that additional supporting data and sensitivity modelling may yet be released.

We note that the consultation question asks for comment on only a limited number of the new publications, namely those included in the table in section 1.5. Our view, however, is that the adequacy of the NPS itself depends on whether or not it presents a convincing case for expansion while demonstrating that environmental limits and ambitions can still be achieved, and that this can only be judged on the basis of relevant evidence. While the Government has not sought direct comment on the updated appraisal report, the paper on carbon abatement, or the updated forecasts, for example, all of these publications have direct relevance to issues that we would expect to see addressed in the NPS. We therefore provide comment on various of the supporting documents where relevant.

Many of our concerns would also apply to expansion elsewhere, including at Gatwick, and we remain opposed to new runways generally until effective environmental policies are in place. As the Airports NPS focuses on delivering a new Heathrow runway, however, with the Gatwick option not currently under consideration, we have commented only on Heathrow expansion.

The revised draft NPS still fails to show how a new Heathrow runway is compatible with achievement of the Climate Chance Act.

The NPS claims:

This further analysis reinforces the conclusion that any one of the three shortlisted schemes could be delivered within the UK's climate change obligations, as well as showing that a mix of policy measures and technologies could be employed to meet the Committee of Climate Change's planning assumption.

We disagree with the implication that the Government has presented evidence showing that expansion can be compatible with UK climate change obligations and with the CCC planning assumption. It remains the case, as we argued in our previous evidence, that the UK has no climate change policy for aviation. In fact it is increasingly clear that while the Government says that such a policy will be developed in the context of the aviation strategy, it is quite deliberately pushing any serious consideration of this issue until well after a likely vote on the NPS given the risk to that vote of exposing the likely incompatibility of the project with achievement of the planning assumption.

In the meantime, the Government has presented new evidence on:

(a) Its estimation of the scale of the CO₂ challenge (as part of the new Aviation Forecasts), which now indicate that without a new runway, the planning assumption will just be met but that a Heathrow runway would result in exceedance of the assumption of 2.4MtCO₂ by 2050

(b) Some theoretical options and associated costs for reducing CO₂ emissions (in the carbon abatement paper commissioned from Ricardo).

We have concerns, set out below, about the robustness and reliability of the forecasts, and about the deliverability of the carbon abatement options.

Dramatically lower CO₂ forecast

One notable feature of the new figures is that the anticipated CO₂ emissions per passenger are around 18% lower than in the last Government forecasts, just four years ago (falling from 106kg CO₂ per passenger trip to 90kg CO₂), and that estimated total CO₂ emissions from aviation by 2050 under a 'no expansion' scenario have reduced from 47 Mt in the 2013 forecasts to 37 Mt now. With Heathrow expansion the forecast increases to 39.9Mt under the new figures. The previous forecasts were published at a time when the Government was opposed to new South East runways so did not include a 'with expansion' estimate.

AEF has for several years been highlighting the large disparity between the CO_2 forecast for aviation by 2050 and the maximum emissions level from the sector recommended by the Committee on Climate Change for compliance with the Climate Change Act: 37.5 Mt. Heathrow expansion would have made it significantly harder to close this gap, we argued. With the new forecasts there is still set to be an overshoot of the target, but this is now approximately halved.

While we would be pleased if this was the case however, we have struggled to find a meaningful explanation for the change, and we remain of the view therefore that closing this gap will be difficult to achieve. The consultation states: "Carbon emissions are now forecast to be substantially lower than previously forecast, as aircraft are expected to fly shorter distances and airlines are using more fuel-efficient aircraft." We have looked in detail at the evidence relating to trip length and future fuel efficiency that was published alongside the updated NPS¹, to see if we can identify convincing evidence or rationale to explain the large disparity between the two emissions forecasts.

We can see little evidence that the lower CO₂ forecast derives from any expectation of shorter trip lengths. Despite evidence of strong short-haul growth over the last five years, the long-term split between the percentage of short- and long-haul passengers in 2050 remains similar in both set of forecasts.

In terms of aircraft efficiency, it is true that the Government appears to be assuming more rapid technology improvements than in the previous forecast. While the expected annual efficiency improvements for the immediate future, up to 2030 (which is presumably based on actual orders), and for the decade after 2040, are lower than in the last forecast,

¹ Specifically we have sourced data from the DfT 2013 and 2017 aviation forecasts, from the review of the DfT aviation fleet mix model https://www.gov.uk/government/publications/carbon-abatement-in-uk-aviation

adjustments to the forecast entry into service dates for new (more efficient) aircraft suggest greater technology benefits between 2030-2040 than in the 2013 forecast. Aggregated benefits over the period 2016 to 2050 are now higher (48% versus 32% improvement), suggesting an efficiency improvement of more than 1% per annum.

It is unclear what gives the Government confidence to make this change. Previous forecasts relied on assumptions that were consistent with the mid-point technology assumptions used by the UN's International Civil Aviation Organisation, whereas the new forecasts suggest that the Government is assuming more advanced technology scenarios towards the upper end of what is likely to materialise. Whether there is sufficient fiscal or regulatory pressure to encourage the development and entry into service of these aircraft is unclear, and is not discussed in the document.

In addition to the change in the technology forecast, the only other factor that appears to differ substantially between the 2013 and 2017 forecasts is the number of passengers per aircraft, which rises from an average 117 passengers per flight (in 2050) to 141. While this could help to explain the difference in terms of emissions per passenger, the Government has provided no commentary on the rationale for the significant shift to the assumed uptake of larger aircraft, or the associated sharp decline in forecast ATMs. The 2017 baseline forecast assumes 900,000 fewer flights than predicted in 2013, a 24% reduction.

Any changes to the treatment of alternative fuels, airspace efficiency, the carbon price, Air Passenger Duty and fleet retirement age have been minor. Similarly, the aircraft database provides estimates of fuel burn for each aircraft type, but the examples provided for the recent update used in the 2017 forecast suggest that emissions estimates have gone up as well as down depending on the distance (stage length) flown. Following a review of the actual and modelled data for 2015, it was found that the modelling had underestimated actual emissions by approximately 1Mt. This adjustment factor has now been carried forward for the entire period to 2050, which should have acted to increase the emissions estimate compared to the previous forecast.

These comments are based on our own analysis. We have found no explanation in the NPS or any associated documents for why, if the 2017 forecasts are correct, the 2013 ones were so dramatically wrong, or what safeguards the Government is planning to put in place if the 2017 forecasts turn out to be an underestimate of the CO₂ problem.

New approach to delivering a carbon cap

The Committee on Climate Change has consistently recommended that the Government should plan, including in relation to infrastructure, on the basis that emissions from UK aviation should not exceed 37.5 Mt CO_2 in 2050, and that this means passenger growth being limited to around 60% above its level in 2005. In November last year, the CCC Chair wrote to the Secretary of State for Business, Energy and Industrial Strategy² expressing

 $^{^{2} \, \}underline{\text{https://www.theccc.org.uk/wp-content/uploads/2016/11/CCC-letter-to-Rt-Hon-Greg-Clark-on-UK-airport-expansion-November-2016.pdf}$

concern that the business case for Heathrow expansion did not reflect this planning assumption, and urging him to set out policy plans for delivering the CCC's recommendation as part of the Emissions Reduction Plan. In fact, the plan, when finally published and renamed the Clean Growth Strategy, said only that the Government "has not reached a final view on the appropriate level of aviation emissions in 2050."

Under the latest forecasts, 'constrained' passenger growth with Heathrow expansion is anticipated to increase by nearly 89 per cent by 2050 over the number of passengers in 2005, and emissions – while lower than previously estimated on a per passenger basis – to exceed the target level by 2.4Mt if expansion is permitted. The Government has still not proposed any policy measures to tackle this overshoot, but has published a paper on theoretical options for carbon abatement, which it commissioned from Ricardo.

None of the options (which include greater use of alternative fuels and increased R&D funding to support innovation) impose any demand constraint (the DfT requested that fiscal instruments be excluded from the analysis), allowing the Government to argue that even under a carbon cap, its forecasts for passenger demand and associated economic and environmental impacts remain the same as in its central forecast. This makes the carbon constraint appear a minor issue that need not impinge on the overall costs and viability of the expansion question, in stark contrast to some of the analysis produced by the Airports Commission which at one point suggested that under a carbon cap, the economic impact of Heathrow expansion would be significantly negative³. It remains the case that a decision to expand would essentially lock in several million tonnes of future aviation emissions every year without any certainty about how or whether this can be compatible with achievement of the Climate Change Act, let alone our longer term commitments under the Paris Agreement to a zero carbon economy.

Both the Airports Commission and the Government have presented, at some time or another, a scenario under which the carbon cap for aviation is not achieved but which assumes implementation of a carbon price for aviation (where, in theory, aviation is covered by a fully-functioning global carbon market). The Airports Commission called this its 'carbon traded' forecast. The new aviation forecasts document claims (in 3.13) that:

Aviation's entry into the EU ETS in 2012 and the forthcoming implementation of the Carbon Offsetting and Reduction Scheme for International Aviation agreed at the International Civil Aviation Organisation mean that any growth of the CO₂ emissions in scope of these schemes above the level of the caps set under these schemes will be exactly offset by emission reductions from other sectors, paid for by the aviation sector. These schemes are accounted for in the modelling through the inclusion of carbon price in air fares in the demand forecasts.

We have set out elsewhere⁴ why we consider this approach to be misleading and unacceptable, including noting the CCC's warning that we should not be planning for a future that assumes the continued availability of high-quality carbon offset credits.

³ https://www.aef.org.uk/uploads/Economic-impact-of-expansion-under-a-carbon-cap-FINAL.pdf

 $^{^4\, \}underline{\text{https://www.aef.org.uk/2016/10/24/new-aef-briefing-why-the-un-carbon-offsetting-deal-for-aviation-cant-close-the-uk-policy-gap/}$

While there is a high-level agreement to implement CORSIA, much of the detail that will determine its environmental integrity is still being debated and cannot be taken as offering a guarantee of effective carbon mitigation, while the EU ETS for aviation has been scaled back to cover only intra-EU flights for the foreseeable future (at least until 2023, as set out in the most recent legislative proposal). The assumption that CORSIA will generate carbon prices akin to those built into the 'carbon traded' model, in particular, bears little relation to reality. CORSIA is designed to operate only until 2035. Analysis by the International Civil Aviation Organisation (ICAO) suggests that the cost of reducing a tonne of carbon under CORSIA will be approximately £11 in 2030, compared to the BEIS 2030 carbon price of £77/tCO2 used in the DfT modelling. This suggests that the forecasts overstate the likely reduction in CO_2 from carbon pricing, and therefore underestimate the scale of the carbon challenge.

Theoretical 'carbon abatement' measures but no policy

One of the surprise publications to come out on 24th October was a paper on carbon abatement options for the aviation sector. In the absence of a carbon policy, the Government appears keen to try to provide evidence that Heathrow expansion need not be incompatible with an effective climate change plan, including achievement of the CCC planning assumption.

The paper considers a number of theoretical measures, together with estimated CO_2 savings and an indication of their cost-effectiveness. In presenting likely carbon costs associated with the project, the Government appears to have selected two options on the basis that they have low or negative abatement costs but with little regard to their feasibility in policy terms. Ricardo, the author of the carbon abatement paper, notes that policy options were included based on their technical feasibility but that detailed consideration was not given to the precise mechanisms by which the measures could be implemented.

In reality, many of the measures would probably be difficult and/or expensive to implement. For example, it is noteworthy that the technology benefits of increased R&D would require the UK to spend an *additional* £6.07billion per annum between 2020 and 2040 (a total cost of £121.4billion). For comparison, the UK currently contributes £1.7billion per annum to aerospace R&D. Even if the money is spent, there is no guarantee that it will necessarily deliver the desired improvements in fuel efficiency, or that airlines will make take up the technology available, the report notes.

Similarly, the report acknowledges that it will be difficult to increase the volume of biofuels, as they are currently only available at a premium and would be unlikely to attract investment by airlines without government intervention. But any such intervention is likely to require a mandate, something that the RTFO dismisses as potentially encouraging unsustainable feedstocks, and that the industry will resist while the price differential remains.

There are, in fact, barriers to implementation identified with options in the paper. It should be noted, meanwhile, that some of identified carbon savings overlap. Increased investment in R&D and tougher ICAO standards both have the potential to drive increased efficiency but the total savings will be less than the sum of the savings attributed to each measure individually.

In summary, we consider there to be a number of flaws in the treatment of the climate change impact of a new runway in the new papers:

- In the absence of a clearer explanation, we cannot feel confident that the new, much lower, CO₂ forecast is accurate. Given this fact, and the fact the emissions are still predicted to exceed the maximum recommended by the Committee on Climate Change, the lack of any climate change condition for construction and use of the runway therefore remains a key concern for us.
- The Government's new approach to modelling a carbon cap has the effect of (a) marginalising the cost of this approach in the analysis (a cost for 'carbon abatement' is modelled but not included in the WebTAG table or any other aspect of the appraisal), and (b) appearing to predetermine the Government's policy in relation to demand management, despite clear recommendations from the CCC on this issue, and despite the Government supposedly being open to considering all options in the context of the aviation strategy later in 2018.
- While theoretical abatement options are presented for limiting aviation emissions to the level of the carbon cap even if Heathrow expands, there is no proposal to translate any of these measures into policy.
- The characterisation of carbon trading by way of the Aviation EU ETS and/or the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is misleading, since neither approach is set to meet the more rigorous requirements of the UK Climate Change Act. According to the Ricardo report, the carbon cost used in the forecasts is responsible for 10% of the CO₂ reduction. However, ICAO assumes a lower cost of carbon for CORSIA, suggesting that the forecasts overestimate the carbon reductions assumed, increasing therefore the likely overshoot of the planning assumption.

The revised NPS still fails to set out how the Government will ensure that expansion will not cause or worsen an exceedance of the NO₂ legislation

The NPS states in relation to the updated air quality assessment that accompanies it:

"This analysis has been updated to take account of the revised aviation demand forecasts and the Government's final air quality plan. The result of this analysis helped inform the Government's view that, with a suitable package of policy and mitigation measures, including the Government's modified air quality plan, the Heathrow Northwest Runway scheme would be capable of being delivered without impacting the UK's compliance with air quality limit values."

We welcome the fact that the revised air quality assessment finally brings together the previously separate air quality projections from DfT and Defra. We remain concerned, however, that the level of risk posed by expansion to the UK's air quality legislation has not been reflected adequately in the NPS, that the supposedly 'final' air quality plan is still subject to legal challenge, and that no effective means of enforcement has been put in place should air quality improvements not materialise as quickly as the Government hopes.

Air pollution in London, generally, and specifically in the Heathrow area, is already at levels that have led to regular breaches, and will be worsened by a third runway. We remain mindful that the hoped-for improvements in air quality that the Government of the day predicted last time Heathrow expansion was on the table have failed to materialise.

New NO₂ modelling

We note that air quality projections have been updated several times since publication of the Airports Commission's work, which anticipated non-compliance with NO_2 values for many years to come. The revised national plan for tackling NO_2 concentrations brings forward the anticipated compliance date for London. But it has nevertheless been widely criticised for relying too heavily on action by local authorities, and for its failure to take tougher action on diesel vehicles. On 7^{th} November, Client Earth – which has already won two court actions against the Government for failing to bring NO_2 to within legal limits in the shortest possible time – launched further legal proceedings, arguing that the latest plan remains inadequate.

The issue of whether or not Heathrow expansion would cause non-compliance rests almost entirely on the effectiveness or otherwise of the national plan, the new air quality evidence indicates. The Government's hope appears to be that this plan will deliver improvements quickly enough to create headroom for the additional pollution associated with Heathrow expansion while still keeping NO_2 to within legal limits. In practice, much of the air pollution mitigation for London is being driven by the Mayor, who firmly opposes any benefit to Londoners' health that he is able to deliver from then being eroded as a result of Heathrow expansion. With many roads expected to be at or very close to the limit in the early years of Heathrow's operation, meanwhile, the risk of the project causing non-compliance is high, the new analysis shows.

Measures proposed in the NPS in relation to air quality are unlikely to have any impact on the issue the analysis suggests, as the highest risk associated with expansion is not on roads in the vicinity of the airport but in central London. "Whilst it might be possible for the airport to offer various inducement measures to encourage sustainable transport by passengers and staff, the reduction in compliance risks is primarily dependent on the measures taken by national and local government to reduce emissions on the wider road network", the WSP reanalysis argues (6.4.11). The NPS, however, makes Heathrow responsible for demonstrating that the construction and operation of a third runway will not affect the UK's ability to comply with legal obligations. There is no meaningful provision for enforcement if

Heathrow's modelling turns out to be wrong, and no conditions on the construction and use of the runway, even if at the time, it is clear that this will cause or worsen non-compliance.

In terms of the analysis itself we are surprised both that no modelling appears to have been undertaken of the impact of runway construction on limit value compliance, and that the impact of the additional aircraft (as opposed to road vehicles) has been assessed as insignificant. We do not, however, have access to alternative modelling on these issues.

Future breaches of the NECD

As noted in our previous submission, while the UK is currently compliant with the National Emissions Ceiling Directive, the air quality analysis conducted in relation to Heathrow expansion indicates that we are expected to be in breach of this Directive for PM2.5 as soon as 2020, and for NOx by 2030, with Heathrow expansion likely to exacerbate these exceedances, albeit by a small amount (Appraisal of Sustainability Appendix 8 8.9.39-8.9.43). There is no discussion of this issue in either the NPS or the consultation accompanying it.

Failure to update the local air quality assessment

We note that the air quality re-analysis states in section 2.3.3 that while updated figures have been used for the national level projections, the local air quality assessment built in to the analysis relies on work from the Airports Commission. The extent to which this aspect of the modelling has been updated since 2015 is unclear, despite the introduction of new emissions factors in the intervening period, designed to better reflect the real world impact of diesel vehicles (and introduced in response to evidence of a large disparity between lab results and emissions on the road). The remodelling of Heathrow's impact may therefore be incomplete.

Protecting public health

Finally, there is now strong evidence that the current legal limit values are not sufficiently stringent to protect the public from dangerous air pollution. In particular, while the UK does have legislation for particulate matter concentrations, the current limits are some way above those recommended by the WHO. Compliance with existing legal standards should not be taken as a sufficient indicator of whether or not Heathrow expansion is or is not consistent with protecting the public from dangerous air pollution, whether in central London or in the local area.

In relation to noise, the revised NPS:

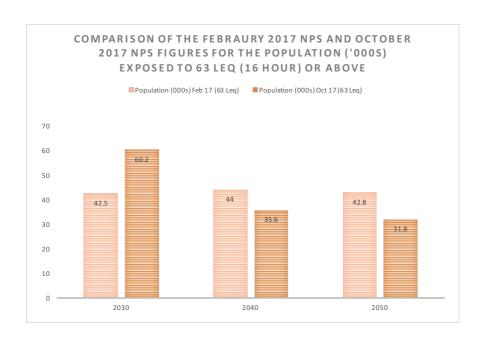
- continues to lack transparency in relation to planned flight paths and therefore actual noise impacts
- fails to set noise controls that are tough enough to maintain respite and protect communities; and
- lacks meaningful, measurable goals to bring environmental noise down to levels that
 are safe for health, and fails to sets out plans for regulating Heathrow's future noise
 limits within this framework.

The revised Appraisal of Sustainability, in its annex on noise, meanwhile sets out a number of changes to the evidence base on noise, on which we have some comments.

Deeply buried in the annexes to the Appraisal of Sustainability is a paper assessing what impacts the new forecasts will have in terms of noise. The assessment has been based only on a limited number of metrics, however, and the impacts have not been discussed in the revised NPS or associated consultation. While the Airports Commission, recognising the significance of communities being exposed to aircraft noise for the first time as a result of expansion, provided an estimate of the number likely to be 'newly affected', this is not one of the metrics assessed in the updated forecast.

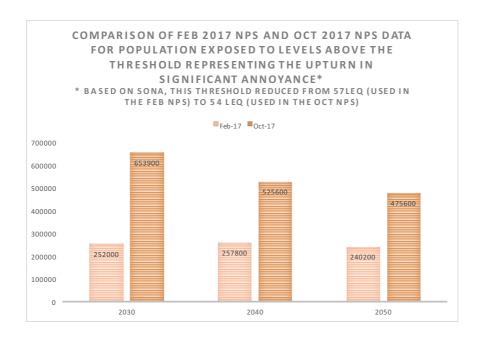
We note that under several metrics, noise impacts are now expected to be worse than previously forecast, particularly during the early years of the runway's operation.

- (i) The population exposure at high noise levels is 42% higher at 2030 in the new forecasts compared with the information supporting the February draft NPS.
 - 60,200 people are now expected to fall within the 63 Leq 0700-2300 at this date, the level at which Government expects airport operators to provide financial assistance towards insulation costs. While the levels for later years (2040 and 2050) are lower than previously forecast, the peak in 2030 will coincide with the period in which a large number of people are exposed to aircraft noise for the first time.



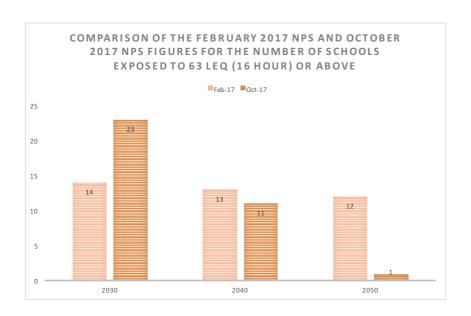
(ii) The number of people set to fall within the noise contour considered to mark the onset of significant community annoyance has increased significantly.

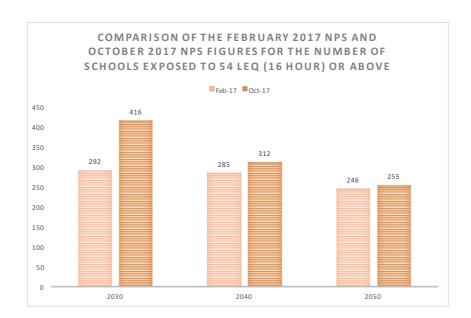
One of the changes in the AoS has been the need to reflect new airspace and noise policy, which has lowered the threshold at which significant community annoyance is regarded as beginning to occur, from 57 Leq 0700-2300 to 54 Leq 0700-2300. As a result, the numbers likely to be exposed to noise at a level that can cause significant annoyance if Heathrow expands is higher in all years modelled, but particularly at 2030 given the new pattern of the forecasts.



(iii) The number of schools expected to be exposed to high levels of noise has increased for earlier years, and for lower levels is higher across all years modelled.

The number of schools exposed to noise of 63 Leq in 2030 increases from 14 to 23 in the new forecasts, but is lower for later years. The number exposed to 54 Leq is higher for all years.





The revised NPS does not give a full or accurate impression of the scale of the likely benefits of expansion

Potentially negative NPV

It is notable what while the Airports Commission, in arguing for a Heathrow third runway, made much of its estimate for the wider economic impacts of expansion ("up to £211 billion" according to its first major report), the Government itself appears to have become increasingly cautious about these estimates as time has gone on. Meanwhile, the cost benefit analysis for the third runway, included in the Updated Appraisal Report but not the NPS itself, indicates for the first time that building a third runway at Heathrow could have a negative economic impact in terms of Net Present Value (Table 9.2 of the Appraisal Report). The assessment of economic benefit would be lower still if accounting for the carbon abatement cost (Table 9.3).

No forecast for number of domestic routes

Meanwhile, the new evidence relating to the impact of expansion on both other airports and on domestic and international connectivity, gives a much more mixed picture than the NPS might suggest. In terms of domestic routes, the NPS: states that it is 'imperative' for the UK to grow its domestic and international connectivity; notes the domestic routes that Heathrow says it could deliver (fourteen); and requires Heathrow to "to demonstrate it has worked constructively with its airline customers to protect and strengthen existing domestic routes, and to develop new domestic connections".

Yet the previous forecast of the number of domestic routes with and without expansion doesn't appear to have been updated, making it difficult to see how many routes are realistically likely to materialise. The Airports Commission had previously predicted a drop in the number served from seven today to four in 2030.

International connectivity impacts have been selectively quoted in the NPS

The NPS refers many times to the importance to the UK of boosting international connectivity, and claims that the "important positive impacts" of a new runway "are expected to include better international connectivity".

In terms of total destinations served, however data in Table 3.3 in the Updated Appraisal Report indicates that while expansion corresponds with an increase in the number of daily services, the total number of destinations served actually falls with a new Heathrow runway compared to the 'no expansion' scenario.

Destinations served with a North West runway

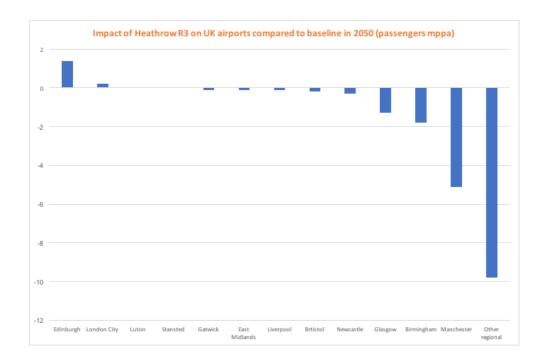
	All short haul (from table 3.3)	All long haul (from table 3.3)	Total long haul and short haul (calculated)
2030	-7	5	-2
2040	-5	2	-3
2050	-3	2	-1

<u>The revised NPS fails to discuss the likely impact of Heathrow expansion on non-London airports</u>

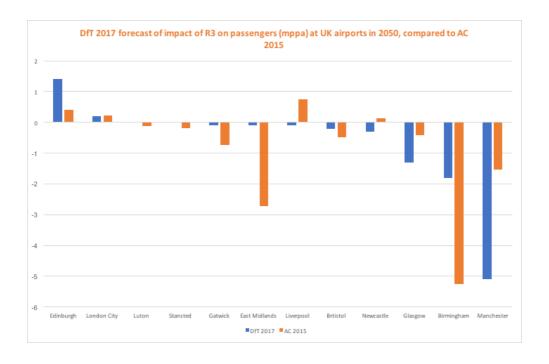
AEF has previously highlighted that while both Heathrow Airport and the Government were portraying a third runway as good for the nation as a whole, evidence from the Airports Commission indicated that the majority of UK airports were set to lose growth as a result of Heathrow expansion. The NPS has since been updated to reflect policy in the proposed Aviation Strategy to support the 'more intensive use' of existing UK runways to meet passenger demand. But the reality is that that Government's own forecasts, while differing in a number of respects from those of the Airports Commission, show a similar pattern of Heathrow expansion drawing passenger growth into the South East.

While the Airports Commission had presented forecasts under both a 'carbon capped' and a 'carbon traded' case, the Government's approach to modelling a carbon cap for aviation has no impact on demand forecasts. The figures in the Government's forecast are comparable to the Airports Commission's 'carbon traded' case.

The new figures show that airports outside the London area will, on average, handle 8.5% fewer passengers by 2050 if Heathrow builds a third runway, with Manchester, Birmingham, Glasgow and the smaller regional airports being the biggest losers, as shown below.



Some of these results are in contrast to the Airports Commission's findings, as shown in the next chart, especially at Liverpool and Newcastle. These airports were previously forecast to benefit from Heathrow expansion, but are now expected to see a loss in passengers when compared to the no expansion baseline.



At some airports the difference is more marked in 2030 than in 2050. The rapid build up of traffic at Heathrow that is now expected in the first few years after a new runway opens

suggests that many flights may initially transfer from other airports. At Birmingham, passenger numbers in 2030 are expected to be 15.4mppa if Heathrow expands, a steep reduction from the projected 18.2mppa it is forecast to handle without a new runway.