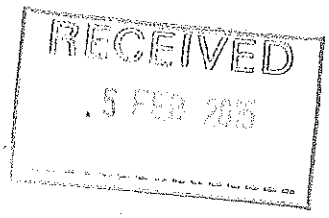
RT HON JUSTINE GREENING MP
Putney, Roehampton & Southfields



HOUSE OF COMMONS
LONDON SW1A 0AA

Airports Commission Consultation
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PO Box 1492
Woking
GU22 2QR

3 February 2015

Dear Sir Howard,

Please find enclosed a hard copy of my consultation response on behalf of my constituency which has also been sent directly to the Commission by email.

I also enclose relevant attachments and constituency correspondence.

Yours sincerely,

Rt Hon Justine Greening MP

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Rt Hon Justine Greening MP response to the Airports Commission consultation

Opening Broader Comments

Overall context

My constituency is badly affected by aircraft noise from Heathrow airport. I enclose a large number of emails from my constituents in relation to the consultation, which if not already directly sent in to the consultation I would ask to be taken consideration of as part of it. They overwhelmingly oppose any further expansion of Heathrow.

In addition, I also include my response to the Airports Commission Discussion Paper on noise from 2013, which I would also like to be taken as part of my submission to the consultation. It also sets out my broader concerns about how noise affects my constituency.

Over the years, in spite of the planning condition against a third runway set by Sir Roy Vandermeer[1] on approval of the fifth terminal at Heathrow, we have been faced with a number of similar consultations in relation to aircraft noise, proposals for more night flights, proposals for Heathrow expansion, and now, similarly in relation to the Airports Commission options consultation.

In the meantime, it is clear there has been a breakdown of trust between the airport and the communities around it.

At the public meeting with Heathrow and Heathrow Hub I held in my constituency in November 2014, in responding to residents' questions, Heathrow Airport Ltd managers said previous promises on mitigating noise from expansion should not have been made to Londoners. They were clear that even the current respite period, which is vital for maintaining the quality of life for local residents, was not guaranteed under their expansion proposal.

Current respite periods are routinely breached by Heathrow and recent Parliamentary statistics showed a significant rise in the number of complaints to Heathrow from local communities about aircraft noise. The consultation notes how unpopular the trial of new flight paths has been[2]. The Heathrow expansion plans to use mixed mode runway operations will likely lead to a reduction in the daily respite period as admitted by Heathrow at the public meeting in Putney.

Heathrow airport cannot grow its way out of being a hub airport that is in the wrong place. Growing an airport that is in such a heavily residential and busy part of our capital city, is not only disruptive to do, as the consultation document sets out, but it is also significantly opposed by many of the 632,600 people already living under the flight path inside the 54dB Laeq, 16hr noise contour[3]. Heathrow expansion would compound the existing, detrimental consequences of our hub airport being in the wrong place, for our infrastructure, air pollution and noise borne by local communities. The third runway proposal is modelled as adding an extra 56,100 people affected[4] under the same noise contour.

However, importantly, the Heathrow Airport Ltd third runway proposal contained in the consultation did not give any clear information about new flight paths if Heathrow expansion was to go ahead, so it is hard for potentially newly affected communities to be clear on the impact of this proposal and respond effectively to the consultation.

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[1] Describing a third runway: "would have such severe and widespread impacts on the environment as to be totally unacceptable"

[2] Airports Commission: Heathrow North West Runway: Business Case and Sustainability Assessment, 4.20, p79

[3] Airports Commission supporting document - 5 Noise: Local Assessment, Jacobs Table 4.1, p81

[4] Airports Commission supporting document - 5 Noise: Local Assessment, Jacobs p87

The Airports Commission has decided not to make longer term proposals beyond where the next runway in the south east should go. I have discussed this with Sir Howard and he believes it is not possible to decision further into the future because of uncertainty and risks over technology and demand profiles. I believe the risks of not taking clear long term decisions outweigh those risks.

The incremental, "next step" approach being consulted on at present, continues the short-termism and lack of strategic vision to date, which has led to the capacity constraints we see today. That approach has failed to carry the argument to date, leading to no practical progress on delivering new runway capacity. It is because we have not been prepared to step back and take a longer term view that we have systematically failed to confront and deal with the issue of our hub airport being in the wrong place.

The NATS analysis released as part of the earlier Airports Commission work[5] showed that a fourth runway at Heathrow would lead to an overall decrease in airspace capacity over London due to crowding out the airspace for flights landing at other London airports further east. I believe we should tackle that looming issue now rather than putting our heads in the sand, and leaving it for future generations to deal with.

The "short-termista", siren voices, generally and understandably self-interested, will continue to advocate expanding Heathrow. Though expansion might feel like a step forward, in reality it is a step further down the aviation cul-de-sac we are already in and away from a long term aviation strategy, to the significant cost of future generations.

The shortlisted options only give one option, Gatwick, that avoids going further down the aviation cul-de-sac and avoiding the step backward. According to the Airports Commission analysis, expanding Gatwick is less disruptive to the strategic road network, affects a fraction of people with extra aircraft noise (24,600 under the 54dB Laeq,16h noise contour[6]) compared to Heathrow expansion (491,900 under the same contour[7]), and adds competition. However, it is not a substitute for the longer term aviation strategy that Britain so badly needs. It could provide the competitive capacity stop-gap whilst we finally devise that long term strategy.

See below the answers to the Airports Commission Consultation questions.

Responses to consultation questions

It is concerning that additional analysis was published and added to the consultation by the Airports Commission during the consultation period itself with the latest documents added on 23rd January, 2015. It meant that people submitting arguments before had no chance to see the extra analysis and those yet to submit had far less time than the overall consultation period to review the new data.

Q1: What conclusions, if any, do you draw in respect of the three short-listed options? In answering this question please take into account the Commission's consultation documents and any other information you consider relevant. The options are described in section three.

The Airports Commission work shows that the costs of the two Heathrow options far exceed the third Gatwick options, whether:

- Financial;
- surface access investment required;
- increased numbers of people affected by aircraft noise with those affected by Gatwick expansion (24,600) being a fraction of those affected by Heathrow expansion (491,900);
- environmental

In terms of benefits, all three options have modelled economic benefits, although the benefits of Gatwick do not seem to include sufficient assessment of the likely economic corridor effect of an expanded Gatwick,

[5] "Fourth Runway at Heathrow would block flightpaths", The Times, 10, March 2014
[6] Airports Commission supporting document - 5 Noise: Local Assessment, Jacobs Table 3.8, p17
[7] Airports Commission supporting document - 5 Noise: Local Assessment, Jacobs Table 4.8, p85

running from central London, via Croydon to Gatwick, and then further south towards Brighton and the South Coast.

Air Pollution: A further issue that is given insufficient weight by the consultation is the issue of air pollution in the West London area. The UK is already in breach of EU air pollution limits in this area, with detrimental effects on residents. The Commission's analysis[8] is clear that mitigation of road traffic emissions may be required along the A4 and M4. Under the previous third runway proposal this included congestion charging measures for HGVs and older high emission vehicles. To place a congestion charge on two parts of the key strategic road network would place a high cost on non-airport traffic in the area.

I note that the details submitted by HAL claimed a significantly lower pollution impact than that modelled by the Commission[9] and that the data submitted by the Northern Runway extension proposer was limited in its assessment of pollution impacts[10]. The Airports Commission is right to highlight air quality as a key risk[11].

Aircraft Noise: On the issue of aircraft noise, there is scant information in the Airports Commission consultation about the likely new flight paths that the two Heathrow expansion options would generate. Neither Heathrow proposer has provided any concrete details on flight paths, but more flights will mean more noise and more residents affected. It is hard to understand how the Airports Commission can rate all the options as simply "adverse" when the scale of impact it assesses across the options, is so completely different between expansion at the two sites, with the Gatwick option affecting a fraction (5% or 1 in 20 people) of those affected by Heathrow expansion.

I would also question how rigorously the Airports Commission can have assessed the viability of the mitigation options that the Heathrow options are proposing that enable its claims of lower noise. They reduce the numbers of people assessed in the 54 dB contour by 196,800[12], or 50%. In particular, one proposal for different flightpaths for planes landing into the airport has never been made before, in spite of the longstanding debate on excessive aircraft noise. That and other proposals are simply not within the gift of Heathrow Airport Ltd (HAL) to deliver without significant work from aviation regulators. In addition, the technology shift assumptions that are used by HAL and drive lower noise are not adequately justified.

A third runway will mean a new flightpath and new communities affected by aircraft noise under the flightpaths, including potentially Roehampton and West Hill and Southfields in my constituency which are currently less affected than East Putney, West Putney and Thamesfields wards.

Combined with the issues of EU Air Pollution breaches, the Airports Commission analysis in these areas seems overly optimistic. It should have contained more analysis in relation to the 'most likely' version of the options and I would like to see this sort of far more detailed analysis in the Commissions considered response to the consultation.

It is concerning that hundreds of thousands of Londoners currently not under any flightpath, but who may be badly affected by noise under the Heathrow expansion proposals, will have not realised they would have wished to respond to the Airports Commission consultation with concerns.

Turning to particular and additional points in relation to each of the shortlisted options:

Heathrow Northern Runway Extension proposed by Heathrow Hub:

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[8] 6. Air Quality: National and Local Assessment, p62, and, Heathrow North West Runway: Business Case and Sustainability Assessment, 4.26, p80
[9] 6. Air Quality: National and Local Assessment, p57
[10] 6. Air Quality: National and Local Assessment, p73
[11] Heathrow North West Runway: Business Case and Sustainability Assessment, 4.28, p81
[12] Airports Commission supporting document - 5 Noise: Local Assessment, Jacobs Table 4.5, p83

This proposal would lead to the only major airport runway used in this way, of its kind in the world. From questioning at my November 2014 public meeting, as I understand it, the runway would have planes simultaneously landing at the eastern end whilst taking off at the western end.

Aside from the hugely disruptive work required to build the extended runway, the lack of detailed operational analysis provided by the proposers meant there was little reference to the mitigation of any safety risks with this Heathrow expansion proposal.

From my discussions with industry experts, it is not clear to me how the risks of an incoming plane aborting a landing on the eastern end and having to ascend, continuing the flight westerly, would not be excessively high for those planes on the western end taking off (into the path of the aborted landing plane) or to a lesser extent standing awaiting taking off. The Airports Commission analysis had no assessment on this operational scenario and safety risk.

Similarly for a plane experiencing difficulties on landing, unable to control or break, the industry expert I consulted with raised a question as to the risks to planes standing awaiting takeoff, or in the process of taking off.

These seem to be basic safety risk issues, set alongside its costs and other delivery and infrastructure challenges. I would urge the Airports Commission to carry out the necessary detailed operational assessments.

The inclusion of this option, one used by no other major airport in the world, because of its complexity of operation and likely safety risks to mitigate, highlights the extreme problems associated with attempting to expand Heathrow, and the lack of viable expansion options.

There are local impacts for my own community in relation to this option that I would like to highlight require more work. Because the extended runway would need a necessarily complex arrangement for running the northern runway safely – essentially operating it as two shorter runways, the previous analysis carried out under the former government's proposal for a third runway at Heathrow suggests that larger planes requiring a longer runway would be disproportionately used on the south runway meaning larger, noisier planes in the southern runway approach flightpaths which are over my local community. This granularity of operation has not yet been reflected by the Airports Commission modelling in its noise mapping but it is important that this work is carried out.

Heathrow North West Third Runway proposal by HAL

Alongside the Northern Runway extension proposal, the Airports Commission consultation shows both Heathrow options delivering fewer extra air traffic movements than the Gatwick proposal. In addition the Airports Commission seems to assesses the third runway proposal will lead to fewer extra seats to emerging market routes opened up than the Gatwick expansion proposal[13].

A third runway will mean a third runway flightpath, which alongside a broader reconfiguration of how to cope with additional air traffic movements when Heathrow goes from two to three runways, means our local 8 hour period of respite is not guaranteed by HAL. The inability of HAL to confirm existing respite periods was explicitly confirmed publicly at the meeting in Putney in November 2014. Current respite periods are absolutely vital to our local quality of life. They are already routinely breached by Heathrow with minimal fines or sanctions on aircraft operators which is totally unacceptable.

In addition, as set out by Wandsworth Borough Council in its response to this consultation, any increase in night flights would be entirely unacceptable. Major airports such as Frankfurt have night curfews to allow residents' a good nights sleep and so should Heathrow. The options set out previously by the Airports

[13] Heathrow North West Runway: Business Case and Sustainability Assessment, 1.23, p15, assessing 6-9 million extra seats vs Gatwick Airport Second Runway: Business Case and Sustainability Assessment 1.21, p14, assessing 9 million more seats

Commission to have more early morning flights would be unacceptable to local residents. If early morning flights are strategically important then they would be better landing at an airport that is not surrounded by a heavily residential area.

As the 2M Group of local councils opposing Heathrow expansion have pointed out, the level of rehousing and resettlement needed with the Heathrow third runway option would be the largest since WW2. Again, this is symptomatic of trying to shoehorn extra Heathrow capacity into a space it simply cannot fit.

General Heathrow Expansion options comments:

The additional passengers and need for improved surface access to an expanded Heathrow will be extremely costly and disruptive to build as consultation document sets out. When the last government proposed a third runway at Heathrow congestion charging options on the M4 were modelled as potential ways to reduce congestion and pollution.

Although Heathrow has an excellent safety record, we are reliant on origin airports in part for planes landing at Heathrow, coming in over my own and many other communities. My constituents regularly raise concerns in relation to the safety of having even more flights landing over such densely populated urban areas. Our concerns are that as more runways are added the complexity of the air traffic control only increases. Safety should be a primary concern of the Airports Commission, rather than something to be addressed at a later stage.

Q2: Do you have any suggestions for how the short-listed options could be improved, i.e. their benefits enhanced or negative impacts mitigated? The options and their impacts are summarised in section three.

The Gatwick option requires more work done by the Airports Commission on the economic benefits generated from expansion. In particular the potential for a strategic economic corridor from central London moving south towards Croydon, mirroring the M4 corridor, has not been adequately factored into the economic appraisal.

Q3: Do you have any comments on how the Commission has carried out its appraisal? The appraisal process is summarised in section two.

The appraisal process involved additional detailed work carried out on all aspects of the options that are shortlisted and consulted but it failed to update the 30 year old approach on assessing the levels and impact of noise annoyance. This is a point I raised in my previous submission to the Airports Commission in response to the Noise Discussion Paper. Because of this issue, the Airports Commission should have done more advance work to properly understand community concerns than has done, and this should have been carried out as part of the work to develop the consultation on the shortlisted options. Work should have been done to directly survey and meet a wide spread of the communities affected by aircraft noise and expansion at all the shortlisted options, as part of the preparatory work for the consultation, rather than simply being left as something to be considered once the consultation was underway.

It would have enabled the commission to provide a more informed, systematic assessment of the impact of aircraft noise in the consultation, rather than purely depending on the responses to the consultation.

Q4: In your view, are there any relevant factors that have not been fully addressed by the Commission to date?

Already covered elsewhere in the response

Q5: Do you have any comments on how the Commission has carried out its appraisal of specific topics (as defined by the Commission's 16 appraisal modules), including methodology and results?

Already covered elsewhere in the response

Q6: Do you have any comments on the Commission's sustainability assessments, including methodology and results?

In relation to the noise baseline work, in its conclusions[14] on the North West Runway option, the Commission rightly points out that HAL have used over optimistic assumptions on fleet mix improvements which then gives a noise baseline that is better, less noisy than that which is likely. It is possible that the Commission's assumptions on fleet mix improvements themselves still remain over optimistic. The consequence is to provide an overall picture of the noise impact of the proposal that is overly positive because the underlying baseline, as reduced by fleet mix improvement assumptions is more optimistically rosy than it should be.

Even so, by 2050 when the Heathrow third runway is fully operational it will add a further 56,100 people to the 54dB Laeq16 noise contour even after assumed noise/technology improvements which may well be overoptimistic.

The Gatwick proposal's assessment of noise impact seems to model the basic impact of the second runway, with little by way of other mitigating fleet mix assumptions as the Heathrow proposers have made.

Q7: Do you have any comments on the Commission's business cases, including methodology and results?

Already covered elsewhere in the response

Q8: Do you have any other comments?

The Airports Commission has provided a set of three shortlisted options for a solution to where the next runway adding capacity in the South East should be situated. I do understand that the Commission believes that it is not possible to meaningfully project forward with any certainty beyond this point. However, given the UK's island status, the growth of emerging markets and the more general demand side dynamics, combined with continued potential structural shifts on the supply side model of aviation, both in relation to aircraft design and competition, the downside risk of having no long term aviation strategy at all would seem to outweigh the risk of at least having a strategy but one that was not perfect.

Justine Greening MP
Putney, Roehampton and Southfields
February, 2015

[14] 5. Noise: Local Assessment, p205

Airports Commission Submission
Discussion Paper 05: Aviation Noise

Part 1: Initial Comments re Aircraft Noise/Chapters 1 and 2

Aircraft noise has long been a major source of concern for my constituents, generating significant correspondence. Overwhelmingly my constituents find aircraft noise intrusive, particularly the early morning noise from aircraft landing routinely from as early at 4.30am every morning.

Currently the half day respite of flights from runway alternation provides residents with a break from aircraft noise of planes otherwise overhead every 90 seconds. Given a plane can be heard perhaps 30-40 seconds before it is immediately overhead and then a further 30-40 seconds as it continues past, outside of runway alternation periods, there is some aircraft noise most of the time. As Chapter 1 sets out clearly, aircraft noise disperses more slowly than other noise. The current half day respite of 8 hours (out of 24) when no planes are flying overhead is invaluable in retaining a quality of life for my community.

The issue of noise has always been dominant in decisions regarding Heathrow expansion. No further runways at Heathrow was an express condition that the Planning Inspector, Roy Vandemeer QC, set on Heathrow Airport owners, BAA, at the time that his consent was given for a fifth terminal.

My constituents include many of those who work in the City and also use Heathrow. Nevertheless, we believe that a balance ultimately needs to be struck between the needs of the airport to function but also local residents' needs to have some day to day quality of life. Retaining a quality of life for London's workers is also critical for London's economy. The City and London is the sum of its people working there – many live in Putney. We, they, are London's economy – the people who drive it forward every day.

The impact of noise is disturbed sleep, particularly from early morning night flights, and intrusive daytime noise, particularly when outside. The flight paths go directly over our key local amenities, the River Thames, Putney Heath, Richmond Park and Wimbledon Common.

I will not reprise the various studies the Discussion Paper refers to in Chapter 2 that set out the other measured and researched impacts of noise on childrens' education, broader health issues and worker productivity, suffice to say they are well documented, understood and real issues that should not be dismissed.

The Discussion Paper also notes in Chapter 2 the previous research carried out into how noise annoys people. The most recent ANASE study into noise annoyance had some debate over its methodology. It is clear that getting any precise science to understand noise annoyance is challenging. Even so, the ANASE findings did suggest broadly that people were getting more annoyed from noise at lower levels of noise. This finding mirrors the areas that generated significant responses from London residents to the last government's Heathrow third runway proposal.

I believe this strongly shows that taking a traditional 57dB approach to assessing the level of noise annoyance from any new aviation strategy will exclude a large number of people who will be annoyed and affected but live outside of the 57dB noise contours. At a minimum, the Commission must review noise impact using the 54dB or 55dB level and consider sensitivity analysis at lower levels as well.

For Heathrow, the population within a 55dB Lden contour is over 700,000 people compared with less than 300,000 inside the old 57dB Leq contour. Therefore to use 57dB will be ineffective in capturing the likely noise impact experienced on the ground.

In terms of noise avoidance for populations nearby and given wind direction, Heathrow airport is in the worst possible place, being on the west of our capital city. This is reflected in the exponential number of people affected compared with any other London airport. The table below shows how striking this is, as well as the disproportionate number of people within the 55dB Lden contour for Heathrow:

London Airport	Population under 55dB Lden Contour
Heathrow	725,000
London City	12,200
Gatwick	11,900
Stansted	9,400
Luton	8,600

Heathrow has 60 times more people affected by 55dB or more noise than London's next biggest airport Gatwick with fewer than 12,000 people within the 55dB contour.

Looking at the overall numbers of people in the UK within a 55dB contour due to their proximity to an airport, Heathrow accounts for **70%** of all people.

Part 2: Comments in relation to specific Chapters:

Chapter 3 and 4

Chapter 3, in particular paragraph 3.5, clearly sets out that the definition of noise is inextricably linked to human experience, and it is therefore sensible to look at how many people are affected by aircraft noise and also how much. The World Health Organisation research shows that it is both individual instances of noise and ongoing noise – ie a continuous rumble, that can be disturbing to people.

The noise mapping currently used does provide some insight into the impact of aircraft noise on the ground.

The Discussion Paper asks what metrics and methods should be used to assess different airport noise footprints.

On the conventional approach of noise mapping, I have set out above that I believe a 57dB contour assumption as the onset of noise annoyance is inaccurate and that 55dB Lden or 54 Leq should be used as the onset threshold, with sensitivity analysis at a lower level. Regarding the appropriate noise measurement approach, the Paper sets out the drawbacks to Laeq16 and I support the additional analysis of looking at the so-called N contours approach used in Australia. This approach can better capture the extent of flyovers disturbing people. For example an N55 contour would sensibly look at the experience my own community has. If combined with a 55dB Lden or 54dB Leq approach the two could work effectively, and be considered in tandem.

The lower 55dB Lden or 54dB Leq threshold would mirror the EU approach on airport noise action plans, and also enable better comparison across other UK and European airports.

For any aviation strategy options that see night flights banned, or noise essentially limited to daytime hours, then 54dB Leq would be more appropriate than 55dB Lden.

The "airport efficiency" approach used in Figure 3.4, showing proportionately how many people are affected per plane and per passenger, provides an extremely valuable insight. I believe a comparable analysis on 55dB Lden or 54dB Leq would show an even starker reality on Heathrow's noise efficiency. If Heathrow continues as a future UK hub and needs significant numbers of new runways eg six, then aside from the population displacement needed to build in such a heavily developed area, we would potentially rapidly reach a point where the extent of London flown over becomes practically the entire population. That would risk making our capital city a place where people do not want to live.

Getting extra capacity from the aviation strategy by continuing to expand Heathrow is not only by far the least efficient way from a noise efficiency perspective, it also magnifies the error of Heathrow's poor location for our UK hub airport even more.

The Labour government's proposals for a third runway would have seen an additional 55-60,000 people around Heathrow affected by noise over 54dB Leq by 2020[1]. That is fivefold higher than the impact of existing runways at Gatwick or Stansted.

The Victorians faced similarly important and challenging decisions on transport and wisely protected Londoner's quality of life and environment by building the city's new mass transportation system underground. If Heathrow expansion is allowed I believe it will be one of the biggest planning and transport strategy mistakes of this century, irreversibly blighting Londoners quality of life forever.

The noise efficiency approach also provides a powerful and concerning proxy for the "community safety efficiency" of an airport, if any plane was to crash in the vicinity of the airport prior to landing or post take off. Any such incident at Heathrow would be likely to prove catastrophic for those on the ground as well as those on board. Recent incidents have shown that however good Heathrow's safety record, human error alone means that risks can never be managed down to zero. In addition to that, aviation clearly faces other risks, not least terrorism. Even one accident could be catastrophic not only on loss of life but also London infrastructure. The higher the absolute number of aircraft movements, the higher the danger that even a "extremely low probability" event may occur. We cannot beat the odds forever.

Regarding the Paper's question on baseline in Chapter 3. I believe baselining should be from the perspective of the extent of "aircraft noise free time" people have.

The baseline for my community is having 8 hours of aircraft noise free time out of 24 hours every day. Those living away from airports have 24 hours of aircraft noise free time.

Regarding the question in Chapter 4 as to how to look at the introduction of noise in a previously unaffected area, I think it comes down to science and fairness.

Often the argument is made that people who already have some aircraft noise should have more, and those who have none will be particularly disturbed by any "new" noise. This argument is scientifically flawed. Flawed, because on average, it is hard in the first place to argue that one person's hour of identical noise inflicts anything worse on one person than on another person, so annoyance is equal (other than the general point that individuals can be more or less sensitive)[2]. It is also flawed because of the scientifically based fact that people have a noise tolerance limit – an "onset of noise annoyance" regarding the level of noise and how long it goes on. So although on average noise should be equally disturbing to everyone, there is a level and an extent beyond which extra noise becomes annoying. Therefore communities which already have more noise are either closer to, or already beyond the point at which they become annoyed. Taking another hour out of my community's remaining 8 aircraft noise free hours is more likely to take more people over a noise annoyance threshold as to what they can put up with, than taking an hour out of another community's otherwise aircraft noise free 24 hours. By definition, given the extent of noise we already have there are more people at the margin of the onset of noise annoyance. And, adding an hour of "annoying" noise above a noise annoyance threshold must be worse than adding an hour of non-annoying noise below a noise annoyance threshold. Scientifically, those communities currently with no noise will only be as annoyed with aircraft noise as my community is when they have as much noise as my community has. Until that point they will be less annoyed, by definition.

Additionally, it simply comes down to fairness. If you expect to fly, you should expect to pay the costs – not only the ticket but the environmental costs too ie noise and pollution. It is inequitable to expect to consume more flights but have others pay the environmental price you yourself are unwilling to pay.

Chapter 5: How to Approach Mitigation

Taking the arguments above, and the Sydney airport case study, both suggest that, for the Airports Commission overall aviation strategy, the most efficient aviation strategy regarding extra capacity will:

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[1] Table 8, page 71 "Adding Capacity at Heathrow Airport", DfT Consultation Paper, 2007

[2] It is not appropriate to get into a debate as to whether one person's hour of annoyance, is more or less valuable than another person's.

Step 1. Achieve "best in class" noise performance for each airport under consideration: For any given airport noise footprint, minimise noise annoyance for extra, and ideally existing flight paths - use flight paths to optimally spread noise to minimize the number of people who experience noise above the level where the onset of noise annoyance occurs – i.e at least 55db.

Step 2. Optimise down extra noise annoyance from extra capacity across airports: Minimise the number of extra noise annoyance of 55dB or over by having extra noise happen away from people rather than close by;

If step 1 is not viable, due to the rigidity of existing flight paths, then step 2 still logically holds.

Recognition of clear, independently monitored and rigorously enforced respite periods is vital and must be combined with a minimised frequency of planes overhead for any given community – i.e rumble management, based on the Sydney airport experience, and the Australian N+ approach.

From a purely efficient economic consumption perspective, matching economic "goods" – (i.e being able to fly), with economic "bads" (i.e noise, pollution) is more effective in driving responsible consumption than decoupling them. Given the overall environmental "bads" created by flying, not least noise, carbon emissions and pollution, arguably consumers will take more sensible choices as to whether to "consume" more flights if they face paying corresponding "bads" alongside that.

I would like to see the Commission carry out more analysis or assessment in relation to the onset of noise annoyance due to the length of noise - the persistent "rumble" of aircraft noise overhead and how long communities have to bear it each day. The case study of Sydney is interesting as it suggests that in that case, dispersal was much more effective in minimising overall annoyance, presumably because it minimised the numbers of people whose experience of noise was above the onset of noise annoyance. However, there is little understanding of the extent to which reducing noise overhead from, for example, the current every 90 seconds to every 3 minutes (ie 180 seconds) proportionately or disproportionately reduces noise annoyance by say, in that instance, a half, or whether a different relationship holds.

The Commission could also carry out high level work to look at the potential to optimise the noise footprints of existing London airports.

Looking at this in the context of extra aviation capacity in London and Heathrow, it is clear that expansion at Heathrow is the worst possible way of achieving a noise efficient capacity increase for the UK. With 60-fold more people under the 55dB Lden noise contour compared to Gatwick, and nearly 80-fold more than Stansted as examples, even with an "optimised" Heathrow noise footprint, the impact of expansion on people on the ground compared to other airports will be entirely disproportionate compared to expansion at any other airport.

Part 3: A Broader Approach to Aircraft Noise and producing an Aviation Strategy that can be successfully implemented

This matters because overcoming the issue of how to handle aircraft noise and pollution in particular are necessary for any successful aviation strategy. As we have experienced, failing to properly address concerns over aircraft noise has effectively led to Heathrow expansion being opposed by all major and most minor political parties and both of London's Mayors. It has proved politically undeliverable. Given that any aviation strategy will take at least three Parliaments to be delivered, "political resilience" is a prerequisite for any successful aviation strategy.

Previous attempts to provide capacity in the South East have failed because incoming governments have reversed the decisions of their predecessors, eg Wilson government reversing Maplin Sands estuary airport decision in 1974, Coalition government reversing Labour's third Heathrow runway decision.

The only area where there is political consensus is against a third runway at Heathrow. None of the three major parties is advocating a third runway at Heathrow. Politically, as an option it is as far away from having consensus to go ahead with it as is possible. In Coalition government, consensus may well have to be found within government, before it can be achieved via agreement with the Opposition.

Consequently, the Airports Commission should rule out further expansion at Heathrow as an option.

If expanding Heathrow is not a politically deliverable project then alternatives, and those that are more politically resilient and could get political consensus, must be looked at instead.

In this final section, I will make brief comments regarding the supply and demand side factors I believe the Commission needs to consider and then conclude with the strategic options those then drive.

Supply-side Factors.....:

Assumptions into the future regarding supply-side factors have too often proven to be wrong. Most have either mis-predicted the future cost base of the industry (eg during the oil crisis of the 1970s when it was assumed peak oil prices would persist, or mis-predicted the potential for the structure of the industry to change (e.g the entry of the low cost provider). If there are any major technological advances on speed of travel – e.g if major long haul routes became possible in short haul style times, or the new design Dreamliner became dominant making existing long haul flights more viable with fewer passengers, we could see another major structural shift in the industry on the supply-side.

....and Impact on Demand and Capacity Requirements:

In a highly competitive industry we have seen supply-side factors quickly translate into pricing and consequently demand. It is hard to see anything other than a rapid rise in air travel to, for example New York, if the flight time became 4 hours rather than 7-8 hours.

In the case of the Dreamliner development enhancing point to point route viability, this could see the value of a hub airport, where passengers for lower demand or longer haul more expensive destinations are aggregated by the hub to optimise the network, lessened by comparison to its importance in today's aviation network.

Additionally, though night flight restrictions are rightly in place to protect communities on the ground, in the case of an airport well away from people, the market may be there for a 24 hours a day operation. Many airports operate with flights leaving at early morning hours eg Riyadh, Dubai, so there is a market elsewhere. Any 24 hour operation could presumably improve airport charges per aircraft movement by spreading infrastructure charges across more flights, and in turn improving competitiveness compared to other EU competitor hubs.

Future-proofing UK Aviation Capacity

The UK's aviation strategy also has to answer the simple but critical question as to how "futureproofed" it wants to be. Should we have an aviation strategy that can meet a demand-side scenario that is well beyond that which we can envisage today? If at all possible it should because our previous experience is that we underestimate future demand and fail to see the future strategic shifts in the industry that can trigger demand growth.

Hub Airport or Multi-airport Strategy

Beyond that, the key issue is then the hub argument, and whether rising demand, combined with technological progress, eg Dreamliner or other technological/industry advances, will mean that point to point travel becomes increasingly dominant over the traditional hub and spoke network.

Looking at factors other than the pure network benefits of a hub if we were, in a future world where point to point travel dominates more, with passengers avoiding the cost and inconvenience of hubbing, then having previously locked into a hub strategy of locating all the extra runway capacity needed in just one place could easily be suboptimal:

- Resilience: Less resilience under the single hub strategy, in the event of the major airport being inoperational;
- Transport pressure: Greater pressure and dependency on one point of London's transport system, rather than spreading extra passenger driven travel from extra demand to several airports;

- Economic concentration: Less widely spread economic benefits in terms of growth and jobs that airports can bring;
- Market Competition: Less competition in the airport industry and potentially between airline alliances, creating the usual problems with a monopoly provider.

Under this point to point travel scenario and using the approach on noise mitigation I set out in the previous section, then considering adding extra runways at existing airports, eg Gatwick and Stansted, and setting out which airport would take further runways beyond that as demand determined, makes sense. This multi-airport strategy could also provide a medium term approach to capacity whilst the evolution of the market between hub and point to point became clearer to assess.

Conversely, if the assessment is that the hub airport benefits are so overwhelming that aggregating runways in one place makes strategic sense, to be politically deliverable it will have to be done so as to minimise noise on as few people as possible and then minimised on those affected, to ensure that the numbers experiencing noise above the level of the onset of noise annoyance was as low as possible.

This points to either expanding an existing airport but one that is away from dense population, or building a new hub airport in a new location, again, away from dense population.

For a hub airport strategy approach to UK aviation capacity, due to unstrategic expansion allowed at Heathrow, we are now at a stage where any such proposal has significant drawbacks and we face a challenge of working out the least bad option.

As a hub airport which may quite likely need several more runways, Heathrow is simply in the wrong place. It has insufficient space and too many people around it to have any meaningful, long-term hub role for our country. For many this is a deeply inconvenient truth, but it is time to face the fact. As with previous attempts to add capacity at Heathrow, expansion on any scale, let alone the scale potentially required over the coming decades is politically unviable.

London's Mayor has now developed further proposals on a new hub airport which merit serious consideration and others may propose turning other existing London airports into long-term hubs. These all need to be properly assessed and considered by the Airports Commission.

Above all, whether a multi-airport, or a hub airport approach to strategy, the UK needs a medium and long term aviation strategy that is deliverable. Choosing a strategy that seems optimal but politically undeliverable, delivering 0% of its planned capacity, would be disastrous for our economy. The UK aviation strategy has to be rooted in what is politically achievable and therefore actually deliverable. Having another "non-strategy" of tactical incremental expansion at Heathrow, in other words more of the same will generate more of the same results – eg nothing.

It is time to think clearly about what has held us back, therefore to tackle the concern of aircraft noise seriously and think for the long term.

As Albert Einstein said:

> "The definition of insanity: doing the same thing over and over again and expecting different results."

Justine Greening
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