



Richmond Heathrow Campaign

Baroness Sugg
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cc: Caroline Low

Dear Baroness Sugg,

Thank you for inviting myself and Caroline Brock on behalf of the Richmond Heathrow Campaign (RHC) to a meeting on 12 April with yourself and Caroline Low. We thought it would be helpful to refer to the key points that came up at the meeting. We have added a small amount of supporting material to clarify some of our comments at the meeting.

It was helpful to learn of the Government's timetable. We understand the aim is to seek parliamentary approval of the Airports NPS by the end of June on the basis of a simple yes/no motion to support Heathrow's Northwest (NWR) runway proposal.

The Strategic case. As we explained, we are perplexed by the conclusive support for the NWR expansion given by Government, the Airports Commission and the Transport Select Committee in the face of the substantial evidence that each has assembled. Reflecting on our discussion, the reason for this seeming incongruity may be the emphasis placed on comparing Gatwick and Heathrow options, where it is said the evidence and judgement are relatively finely balanced. In doing so, the question of need is relegated to a decision already taken for granted as a result of the Airports Commission decision in the Interim Report, 2014. In our view, this decision prematurely ruled out the Do-minimum option (i.e. no new runway) and thus re-defined the decision as a choice of location. We believe this to be a serious dis-service to a rational and reasonable decision on expansion of capacity where need and location should be assessed together. We have submitted many reports to the Government, Airports Commission and others over the last five years showing how the evidence, no matter what reasonable judgement is added, leads to there being no need for a new runway and a substantial cost to the UK aviation hub, should a new runway be developed. These reports are on the RHC website. Our focus is on Heathrow but we believe a similar conclusion is reached were Gatwick to be developed. The paradox is that the Government compares Heathrow with Gatwick expansion, whereas we compare Heathrow expansion with the Do-minimum option, which would explain why we come to quite different conclusions and fateful consequences.

The NWR Expansion versus Do-minimum option. In light of the above, we commented at the meeting on the impact of the NWR expansion compared to the Do-minimum option and for clarity we provide some detail here. The DfT's demand forecasts show Heathrow has existing runway capacity to serve 93 million passengers and growth of around 65% in terminating passengers from 55 million in 2016, assuming increasing aircraft loads and reducing international-to-international (I-I) transfers. The need for a new runway is expressed by the difference between UK unconstrained and

Do-minimum constrained demand in 2050 of 494 million and 409 million passengers, respectively. Examination of the 85 million unsatisfied passenger demand shows that all the important long-haul business demand is satisfied by the Do-minimum option. There is small 2 million unsatisfied short-haul business demand. The inbound leisure demand is important and 8 million is unsatisfied but 6.4 million of this is short-haul. There is 26 million unsatisfied outbound leisure demand, of which 18 million is short-haul. One million of domestic demand is unsatisfied. The largest unsatisfied demand is the 48 million international-to-international (I-I) transfer passengers. But these transfers are of no value to the UK, and the CAA and DfT evidence demonstrates (contrary to Heathrow's claims) that they provide little support for otherwise unviable destinations. The Do-minimum option goes a long way to satisfying business and inbound tourism demands that are important to the UK. The above figures are for 2050 and the unsatisfied demand develops only gradually over the next 30 years. Excluding the I-I transfers, most of the remaining unsatisfied demand is short-haul leisure demand (i.e. 25 million), which we believe would be better served by land transport and by airports across the UK rather than by concentration at Heathrow. London has the best air service of any world city and there is greater need for improved surface access to all five airports than for a new runway.

The case against the NWR expansion does not stop with need. Total UK passengers number 435 million in 2050 compared to 409 million for the Do-minimum option. But the NWR option contributes only 10 million terminating passengers to the unsatisfied demand, and unfavourably distorts the UK aviation market. DfT evidence demonstrates that at a UK level and by 2050 compared to the Do-minimum option, the NWR expansion adds capacity for 43 million passengers per year. This is used by 17 million passengers cannibalised from growth at other UK airports and 16 million additional I-I transfers of no UK value, leaving just 10 million additional terminating passengers across the UK. Of the additional 10 million, just 6.4 million are UK outbound leisure passengers (at a cost to the balance of payments), a negligible 2 million are inbound leisure passengers, a negligible 0.9 million are short-haul UK and foreign business passengers, a negligible 0.6 are domestic passengers and there are no additional long-haul business passengers. At a UK level, out of the additional 10 million long-haul passengers, 9.3 million are I-I transfers. Connectivity is not improved – just one additional long-haul and 2 less short-haul destinations. The increase in frequency on popular daily routes is largely offset by a loss on thin routes. We believe there is no increase in travel to/from newly industrialised countries (NIC) and least developed countries (LCD). For these and other reasons the NWR expansion does not support the UK as an aviation hub, and compared to the Do-minimum option, the impact is negligible or negative on every measure. The NWR expansion adversely impacts the UK's north/south balance, fails to make use of substantial existing regional airport capacity and concentrates aviation and pollution at an already over-heated site in west London.

This negative impact on UK aviation is not properly reflected in the webTAG valuation, which after including further evidence from the Transport Select Committee, we calculate results in a loss to the UK economy of at least £30bn (net present value (NPV) over 60 years) compared to the Do-minimum. Inexplicably, the Government attributes substantial value to the passenger benefit from reduced ticket prices made possible by adding capacity, while ignoring the loss of this benefit once Heathrow returns to so called full capacity in two years from first flight. Furthermore, the environmental costs of noise and air pollution are substantial and made worse by concentrating growth in UK flights over already heavily polluted London. Carbon emissions may mean that demand will have to be curtailed and the value reduced accordingly. Estimates by the Committee on Climate Change cap growth at 389 million UK passengers by 2050. We believe the DfT demand forecasts are over optimistic in assuming success of global carbon trading schemes and the ability of UK aviation

thereby to offset its gross carbon emissions sufficiently to allow the UK to meet its Paris obligations without aviation restricting other areas and sectors of the UK economy.

We believe along with the airlines that Heathrow's aero charges should be held flat in real terms and if anything reduced. Heathrow's regulatory operating profit before interest and tax in 2016 was £925 million and we calculate this includes excess profits of around £300 million. Heathrow is a gravy train for its shareholders of whom 90% are overseas. The shareholder return is advanced still further because the underlying profitability supports 80% debt financing, which at a relatively low cost of debt leverages the equity return to high levels. The Government pays a heavy price in tax relief on the interest. We believe this largesse (allowed by the CAA's weak economic regulation) should not be allowed to carry forward into the NWR expansion and that aero charges should be reduced from those of today (e.g. in approximate terms to £20 from £22 per passenger today); interest tax relief should be restricted to interest on 50% debt financing. Unfortunately, recent legislation restricts interest relief for small companies but exempts large infrastructure companies. Therefore, it may not be possible directly to restrict Heathrow's interest tax relief. But there should be no state support of costs and the CAA's regulation should ensure a sizable equity contribution instead of reliance on debt. It should be recognised that the tax payer is already giving substantial unjustified support to Heathrow and its monopoly powers. The NWR expansion and concentration of UK aviation should not benefit Heathrow with still more tax relief on interest.

Examination of Heathrow's future corporate cash flow shows that with aero charges held at today's level, Heathrow suffers a loss in value of around £12bn (NPV) from the NWR expansion compared to the Do-Minimum option, which loss would be greater if aero charges were reduced. This is in the context of Heathrow's balance sheet debt and equity of £12bn and £3bn, respectively. Unless costs are reduced substantially and there is substantial Government support, the NWR expansion is not financially deliverable.

We commented on the absence of definitive cost estimates for Heathrow's NWR expansion and expressed concern that the scope of needed surface access improvements was under-estimated and under-costed and that Heathrow's share is woefully inadequate. We referred to the excess of overall surface access demand compared to capacity and the specific problem of frequent level crossing closures on a southern rail access line, which is important to Richmond.

Noise, Respite and overflight of green spaces. On the noise issues we commented on what we see as red lines for Kew and Richmond, while of course recognising other communities and the need for fairness. Our communities are currently under arrivals on the two existing runways.

1. We are wholly against the loss of any of the current 8 hours of daily respite from runway alternation; a three runway airport means the 8 hours would need to be cut to 4 hours.
2. We oppose departures over Kew and Richmond, which result in a loss of respite on easterlies (i.e. around 30% of the year) and which Heathrow may propose.
3. We highlighted the problems of noise and other pollutants over open spaces, including the UNESCO world heritage site of the Royal Botanic Gardens, Kew, and Richmond Park. The Royal Botanic Gardens have to seek renewal of their heritage status from time to time and need to demonstrate that their "outstanding universal values" are maintained. We are concerned that this could be jeopardised by additional aircraft noise.

We raised a number of airspace design issues:

1. We urged efforts be made to reduce noise at source. We said we are keen that noise be placed on a legal footing akin to that for air quality. We appreciate reference to targets in the DfT's recent publications on airspace design and suggest more attention be given to long-term trends and accompanying timely targets ultimately reducing noise down to the WHO Guideline levels. We welcomed the DfT's acknowledgement of the negative health and quality of life impacts of noise and an initiative to include health impacts in noise objectives and not to rely solely on population numbers as a test of success. However, we said it is important to spend effort on introducing simple standards and not delay in so doing while the debate on health continues.
2. We expressed concern that not enough attention is being given to the increase in aircraft size and weight on account of more passengers per aircraft and more fuel needed for longer routes. Noise depends on frequency of flights but also on aircraft size and weight.
3. Given the housing demand in the emerging London Plan we cannot see how the conflict between London's substantial population growth and additional flights can be resolved so as to reduce the impact of noise, notwithstanding the ICAO's balanced approach.
4. Allocation of noise is dependent on the extent to which noise at source (i.e. total noise energy) is increasing or decreasing. In the event of NWR expansion, we assess there is not enough airspace to separate flight paths sufficiently to provide meaningful runway or flight path respite. Already Richmond experiences noise from arrivals on southern and northern runways but also from departures over Teddington. This community would likely hear noise from the NWR as well. Kew's population is potentially exposed to arrivals on all three runways. It is important to recognise the legacy noise climate and that there is no start from a blank sheet. We look forward to NATS' report in May on airports' sharing of airspace and what might be available to Heathrow.
5. On the subject of respite, we are astonished at Heathrow's reports on respite that assess the benefits but completely ignore the costs. For example, people under a flight path would benefit from 8 hours of respite – reducing the average daily noise from say 63 dBA to 60 dBA. But the 8 hours of flights when transferred to another community raise their daily exposure from background of say 45 dBA to 60 dBA. We are deeply concerned that Heathrow expansion is being promoted on the basis that respite will solve the noise problems and we believe this is a false presumption and is misleading.

You sought our views on noise metrics. We suggested that the score card of metrics used by the Airports Commission often exhibited similar trends irrespective of choice of metric. RHC proposes four metrics - Single Event, Hourly, Daily and Annual and we emphasised the need to focus on individual flight paths. We did not want to take your time up at the meeting and so attached here is a brief Annex on our suggested noise metrics which we use to good effect in our airspace/noise model.

Night Flights. We seek an 8 hour night flight total ban from 11pm to 7am introduced over a period of time. A ban should be introduced irrespective of any NWR expansion and should not be treated as a trade-off for a 3rd runway. We said RHC had researched all the night flights and their origins and concluded there is hourly capacity in the daytime to accommodate an 8 hour ban at no economic cost. Short of such a ban, we oppose any increase in the number of flights compared with today in the 11:00-11:30pm and 6:00-7:00am shoulder periods. We were pleased to hear your clarification on comments at the Transport Select Committee, which could be interpreted as promoting rotation throughout the night instead of a ban. We support a 6 ½ hour ban accompanied by runway rotation after the ban pending a full 8 hour ban. We said runway rotation already occurs in the night period. You asked in which part of the night would we like a 6 ½ hour ban but we declined to answer as this is a societal issue and we did not wish to express our own preference at this stage.

Enforcement and holding Heathrow to account. It is of concern that the list of ‘accompanying measures’ in the draft NPS is not wide enough and we fear these would not be converted into meaningful conditions in the DCO planning process. We are keen to see the financeability test being satisfied before the NPS is laid before parliament. In response to the Revised draft NPS, we submitted what we see as justification for improved noise objectives and terms for conditions on surface access, noise and air quality. We seek no increase in noise for those already exposed to noise and a cap on the annual number of flights and passengers. At our meeting we suggested in generic terms that the NPS should deal with the enforceability of conditions and the consequences of failure or non-compliance. To this end, we suggested a failure of a condition should either be that the project ceases, the release of capacity be restricted and/or there should be a financial penalty and that at all times the shareholder should pay and not the tax payer, passenger, airline or community. It is important that Heathrow has the reserves to meet the costs of failing any of the conditions. Where other parties are involved in the outcomes, it is important that Heathrow be tied to its fair share of responsibility and burden and that Heathrow should not be absolved from risks just because it has little or no control over them. Hopefully these matters can be addressed in the NPS.

Community Compensation. On the subject of compensation/mitigation we expressed concern that based on the historically slow rate of expenditure, the future £1bn expenditure to alleviate the noise impact of NWR expansion would not be sufficiently fast to protect many people. We also said that Heathrow’s profits are inflated by an under-spend on the environment which could amount to £150 million per year. We questioned the NPS’s specific noise contour criteria for allocating compensation/mitigation; the levels seem too high.

CEB and ICCAN. We were interested to hear of progress on the Heathrow Community Engagement Board (CEB) and Independent Commission on Civil Aviation Noise (ICCAN) and how they might be engaged with the aviation issues and participants. We would be pleased to support their success, especially in dealing with the noise issues we face.

Air Passenger Duty. As a supplementary matter we noted the current consultation on APD in respect of Northern Ireland and you helpfully informed us that the UK wide APD is around £3bn per year. We asked whether the foregone fuel duty and VAT on tickets, for which APD is a surrogate tax, might be calculated. We also asked if the impact on demand of substituting APD for VAT and fuel duty could be calculated. Notwithstanding the Treasury’s involvement in these matters, we gathered this might be something that the DfT could consider. We add that we are opposed to a reduction in APD, especially as a means of supporting the NWR expansion and believe it important to recognise the substantial tax already foregone generally but also on account of the APD exemption for international-to-international transfers.

We again thank you for the helpful time you gave to listening and responding to our concerns.
Yours sincerely,



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www.richmondheathrowcampaign.org ; email: willan829@btinternet.com Annex: Noise metrics

Richmond Heathrow Campaign (RHC) Airspace/Noise model metrics

RHC has developed an airspace/noise model that models existing and future Heathrow airspace by flight path taking account of lateral and vertical dimensions and time. The model produces flight path noise contours and vertical cross-sections using four noise metrics.

1. Single Event (SE) LAeq 90 seconds. This is the noise of a single aircraft averaged over 90 seconds. Typically the noise levels will rise and fall over 90 seconds as an aircraft passes overhead. In essence this metric reflects the noise energy generated from a single aircraft. The Single Event metric is used in preference to a Sound Exposure Level (SEL), which standardises the noise as a one second equivalent and is difficult for people to equate with and in preference to the maximum noise level (Lmax), which is a single point metric and therefore only of partial relevance to the full impact of an overhead aircraft.
2. Hourly LAeq 1 hour. This metric shows the impact of averaging the sound of a number of aircraft over one hour. It represents the total noise energy generated over one hour by aircraft using a particular flight path. Averaging the noise over one hour for a series of Single Events requires amalgamation of the Single Event metric with the background noise level. The Hourly metric increases as the number of aircraft per hour increases. It rises to equal the value of the Single Event metric when there are 40 aircraft per hour using the flight path (40 x 90 seconds = 1hour). This metric therefore reflects the noise impact of traffic volume. The modelled Hourly metric is calculated logarithmically using the proportion of time in the hour taken up with single events and remaining time at the background noise level. The Hourly metric is used by the RHC model in preference to N70 or some similar measure for the number of flights. The Hourly metric can vary from hour to hour and as such can support better management of noise across the day.
3. Daily LAeq 16 hour. This metric shows the impact of adding Scheduled Respite to the Hourly metric. Respite can only be considered fully in the context of two or more flight paths. For a given Heathrow traffic volume, the reduction of flights on one flight path in order to provide respite must logically be offset by an equal and opposite increase over the same period of time on another flight path. Adding respite is re-distributive - one flight path benefits from respite and the other bears the cost of increased flights. The Daily metric in the first instance represents the benefiting flight path. If the metric is calculated for combined flight paths then it might be thought the benefit and cost would cancel each other. But flight paths have different noise characteristics and noise calculations tend to be asymmetric so there may be a net acoustic gain or loss. Furthermore, the dose-response relationship may vary so that the effect on health and quality of life may result in a net gain or loss for the people affected. The Daily metric can vary from day to day and as such can support better management of noise across the year.
4. Annual LAeq 16 hours. This metric shows the impact of averaging the Daily metric across 365 days a year. It reflects the impact of the westerly/easterly split - for example, 70% to 30%. The modelled Annual metric is calculated logarithmically using the proportion of time in the year taken up with flights and remaining time at the background noise level. In effect this is similar to the current Government LAeq metric but is not hindered by a threshold.

The RHC metrics have not been linked to the effect of noise on individuals and the community in terms of health and quality of life. A single event may be noticed but is very unlikely to have any impact on health or quality of life. But it is the basic building block for the other metrics and reflects the noise at source and hence noise generated, which over time is key to noise reduction through the introduction of less noisy aircraft. The volume of traffic each hour is likely to be of considerable effect on people and may be relieved by respite. So the Hourly and Daily metrics are key indicators. The Annual metric dilutes the more immediate impact that people experience and is perhaps best used in conjunction with the Hourly and Daily metrics and not on its own. The metrics can be specific to mode of operation, e.g. westerlies or easterlies.