

Sir Howard Davies
Chair Airports Commission
Sanctuary Buildings
20 Great Smith Street
London
SW1P 3BT

3rd February 2015

Dear Sir Howard

Response to Airports Commission Consultation – Deadline 3 February 2015

Please find enclosed the response from the London Borough of Richmond upon Thames to the Airport Commission's most recent consultation on runway expansion in South East England.

Our response has bi-partisan support among our elected members, as does the Council's overall policy of opposition to any increase in runway capacity at Heathrow.

Consultees had to familiarise themselves with more than eight thousand pages of technical reports in a period of little more than two months that straddled the Christmas/New Year holiday season; and many of the reports appear to be incomplete or do not explain the basis of key data and calculations. The combined effect is that our residents feel that they are being steam-rolled. We therefore urge the Commission to undertake a further round of consultation when all the reports are available in a complete and finished state.

The reports have a tendency to talk-up the economic benefits of additional runway capacity at Heathrow, while down-playing the environmental disbenefits. We are therefore concerned at this systematic bias, with the alleged benefits overstated and the disbenefits understated.

On the environmental side, very little is said about the air quality and other local surface-access problems. The noise assessments ignore the World Health Organisation standards and do not specify the areas that would be newly-overflown by the third runway flight paths. The carbon emissions assessment assumes a best-case scenario that increases at Heathrow would be offset by reductions in other sectors and at other airports, without considering a worst-case scenario that other sectors and airports do not provide sufficient reductions.

The Council regrets that the Airports Commission indicated great insensitivity to the impact of flight path noise by recommending in its interim report that there should be an increase in the number of night time movements at Heathrow, i.e. before 0600, in order to relieve the post-0600 congestion. We therefore ask the Commission to take flight path noise more seriously in its final report.

We attach our response for your attention.

Yours sincerely,

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Airports Commission Consultation – ending 3 February 2015

Response from the London Borough of Richmond Upon Thames

This response has been agreed by the Council members of the Borough's Special Standing Committee on Heathrow, following the meeting on 22 January 2015 at which members of the public also made representations.

Questions inviting views and conclusions in respect of the three short-listed options

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.

If there are economic benefits with the two Heathrow options these are in our opinion, after reviewing the documents, outweighed by the environmental and other disbenefits. The documentation convinces us that both of the Heathrow options would be wrong for its local communities and indeed for the whole of London.

We are not convinced at the viability of the Extended Runway option for Heathrow. Safety particularly for those who live under the flight path is already a concern at the existing level of operation of Heathrow. To expand the capacity by adding an extra runway, with a novel and untested design, strikes us as irresponsible. Safety must be a cornerstone of any runway development and the extended runway falls at the common sense level right from the start. Our response will therefore mainly focus on the North West Runway option but that should not be taken that we are not critical of the Extended Runway option. Also of concern to us is the prospect of a fourth runway, which appears inevitable should any expansion of Heathrow be permitted. It would exacerbate all the issues we foresee with a third one.

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 only benefits that can come from Heathrow are the ones that would come from making it a better neighbour to local people with the existing 2 runways and by not adding a 3rd and 4th runways. Such benefits, assuming that they are feasible, include steeper landing paths, displaced touchdown points, more funding for mitigation measures to combat noise, schemes to improve air quality and quieter aircraft. None of these require an extra runway to benefit the community.

The negative impacts are essentially around noise and safety as set out in detail in the Appendix. Noise needs to be properly mitigated; this includes the loss of sleep as a result of continued night flights, the intrusive noise in people's homes, the disruption at educational establishments and the loss of periods of respite that

comes from interference with alternation patterns. Loss of enjoyment of the tranquillity in open spaces and gardens can by the nature of its openness never be mitigated, unless aircraft are required to be much quieter.

Improvements that are needed include; a full ban on night flights; ensuring that educational buildings and homes are properly assessed and sound proofed, suitable for use under a flight path. Alternation regimes that are not only maintained to existing levels but are improved so that respite means respite and not periods of quiet interrupted by a stream of tactical 'wrong runway' flights. The tranquillity of our prized open spaces needs to be improved and protected. Given the location of Kew, Richmond Park and Bushy Park, improvements can only be achieved by operating fewer flights not increasing them.

Although it is possible to mitigate aircraft noise impacts by the addition of acoustic glazing, this only works if windows are closed. This puts the burden onto the community when clearly they would prefer to enjoy their properties without interference from extra flights. This then raises the issue of who should qualify for sound insulation grants? This issue has never been adequately assessed for the existing noise levels so it is highly unlikely to be undertaken adequately with an expanded Heathrow, to properly mitigate the impacts and meet WHO standards. We know this because the assessment metrics need updating. This underlines the need - identified by the All Party Parliamentary Group on Heathrow and the Wider Economy in its recent report on aircraft noise at Heathrow - for the LAeq noise contours to be calculated down to the World Health Organisation guideline values on community noise in the day and night periods, with an additional supplementary indicator of the total number of aircraft movements (i.e. not simply the number of aircraft movements above a particular noise level) that are experienced per year in each area that is overflown by one or more of Heathrow's flight paths. The supplementary indicator is needed because - as the report to the Secretary of State on the Heathrow Terminal Five Public Inquiries indicated more than a decade ago - the LAeq indicator by itself does not reflect the impact of an increase in the number individual noise events (i.e. each aircraft movement), albeit that the noise level of each event may be lower now than it was formerly. Many residents' objections are based on the number of noise intrusion events caused by overflying aircraft (that the use of the LAeq measure has enabled).

Questions on the Commission's appraisal and overall approach

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

The stated intention of the Consultation, in the Chair's Forward, is that 'it is particularly important for local residents and their representatives to understand more clearly what the proposals entail, and what their consequences might be for the local environment'. However, in spite of the section entitled 'How to navigate the

consultation documents', it remains an extremely complex and extensive but apparently incomplete set of documents. Given the limited time in which to assess and comment on the documents, we cannot be confident that we have detected all the elements that would warrant a response. This is an important issue as we would not wish to miss anything and the question of airport expansion is of great importance to us. We are aware that different issues will be raised by our local residents and residents' groups as well as the local authority groups. On that basis we will not attempt here to cover every point, but to make more of a Borough focused response.

In spite of the already extensive documentation, both the Commission and the consultant's reports indicate areas of work that have yet to be examined and presented. These will be covered later. The overall comment here is to say that it is regrettable that the omissions of any parts at this stage will be to the detriment of our assessment of the whole. Depending on the outcome of those additions, it should remain an option that the Commission is permitted to request that their reporting deadlines be extended, so that they can include a formal consultation on the missing topics, once they are published.

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

Topics needing further assessment include:-

- Impacts on Air quality
- Impacts from increases in Freight
- Location of future flight paths and the impacts
- Health Impact Assessment
- Public safety as a result of the intensification of flights over the urban area
- Provision of housing and infrastructure to support the airport
- A full and meaningful statement on the supporting transport infrastructure
- Benefits of not expanding Heathrow
- Mitigation measures that are fully described and costed

Questions inviting comments on specific areas of the Commission's appraisal

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?

See Appendix 1 for our response to issues raised in the Commission's Technical reports and the Scheme promoter's reports.

The topics covered include the treatment of:-

- Noise
- Flight paths
- Night flights
- Place – tranquillity
- Air pollution
- Surface access
- Operational efficiency - Safety
- Carbon

- Quality of life

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

Surface Access: It is not at all clear whether the Commission has appraised the surface access issue adequately. This could affect the overall ranking of the three shortlisted options.

Air Quality - a detailed assessment of Heathrow air quality needs to be provided. We note that there are already risks for delivery of the Air Quality targets and an expanded Heathrow with its additional surface access demands will increase that risk.

Freight Impact Assessment – a freight assessment needs to be provided for the anticipated increases in freight that have been projected.

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

Deliverability: There are risks associated with delivery of the Heathrow options, including:-

Local airspace design - given the recent adverse community response with regard to the Teddington flight path changes trials, the much larger scale Heathrow 3rd runway proposal may be particularly hard to deliver, as larger swathes of people would be impacted by the changes. These impacts have not been identified or quantified through the work presented in this consultation. Until such work is undertaken we question the Commission's ability to reach a conclusion, as there must be substantial costs that have not yet identified.

Rail links - the commission's own risk assessment document suggests tensions may emerge between rail infrastructure serving airport users as opposed to non-airport uses. This needs to be addressed as any lack of appropriate provision will impact negatively on other aspects of the Commission's appraisal modules, including local economy impacts. If rail links through Richmond are going to be used more intensively then there are large costs associated with greater community severance arising from increased barrier downtimes at multiple level crossings. These costs are not factored into the assessments.

Air quality - without a robust assessment to demonstrate otherwise, it must be assumed that there is a significant risk (with both of the Heathrow proposals) that once they are built they cannot be used, without exceeding EU air quality limits. This cannot be an acceptable situation.

Costs of suitable mitigation - if the costs of mitigation are not fully understood and quantified, for either of the Heathrow projects; the business case for each must as a consequence be significantly overstated, resulting ultimately in a flawed recommendation by the Commission to the Government. The cost should be assessed on the basis of a calculation based on fully mitigating noise levels to WHO

standards, not on the basis of stating the budget limit first and then debating how to distribute it, as happened in the recent Heathrow Ltd consultation.

Other comments

Q8: Do you have any other comments?

We are already deeply concerned over safety issues with the potential for a major disaster with aircraft flying over dense urban areas and are greatly concerned that these runway proposals significantly increase the risk.

We have every expectation that if the Heathrow is granted permission to build a third runway it will very soon be full and the airport owners will be aiming for a fourth. This needs to be fully reflected in any recommendations the Commission choose to make regarding whether slot capacity at Heathrow is optimally used to reflect hub requirements and the wider economy.

A major concern to us, irrespective of the thoroughness of the scheme assessment process, is that fact that the expansion of Heathrow is being driven by foreign business interests who have little interest in the adverse impacts that they will inflict on the residents of this Borough. An increase in adverse impacts would be a major concern to us, so we are standing with our community against the threat of expansion.

We know how our community feels about the expansion of Heathrow as we invited them to cast their vote. The result was a resounding 'no' for both an extra runway and for extra flights at Heathrow.

Appendix 1

Flight paths and Noise

The issues of flight paths, noise contours, population counts and annoyance are all inextricably linked, yet there remain gaps in the assessment of how they interact and how they will develop in the future. It is inevitable that increasing the capacity at Heathrow will either increase the number of places overflowed or increase the number of planes flying overhead. The two different proposals have different impacts, but the fact remains that each of them would cause harm to an area which already has more than its fair share of adverse impacts.

There is significant concern locally about the risk of a catastrophic and devastating accident, and increasing the number of aircraft using Heathrow would only increase this risk to residents. We consider this to be highly irresponsible already and increasing the number of flights over dense urban areas even more irresponsible.

The wider context of the issue of flight paths is treated well in the 'Noise from Heathrow Airport' report from the 'All Party Parliamentary Group on Heathrow and the Wider Economy' (APPG). We therefore commend an assessment of that report, for the wider position on noise, and will bring forward some further issues of a more local nature. The Borough of Richmond already experiences the effect of both landings and take-offs in different parts of the borough, with some areas experiencing both, which in consequence enjoy little or no periods of respite. We therefore take a vital interest in the way that the 3rd runway proposals have been assessed.

The traditional presentation of the average mode noise contours is to reflect the bias effect of westerly preference, such that planes of similar loudness, at the same distance from the airport, are presented as louder over (e.g.) Chertsey to the west compared with Teddington to the east. From many of the contour plots available it then appears as if noise should not be an issue in Teddington. This position was soundly disproved in the 2014 airspace trials which resulted in substantial representations being made and the trials being suspended. Heathrow Airport Limited (HAL(AMEC)) claimed (para 4.4; Heathrow North-West Runway, Air and Ground Noise Assessment) that they are '*working with the local communities to identify changes that could benefit them*', yet they managed to alienate the community by not welcoming the community into the on-going assessment of the trials. The running of Performance Based Navigation is said to be key to the success of the Future Airspace Strategy, yet the trialling has not been going well. The report on the findings of Trial 1 has only just been published and now we await the findings of Trial 2. Trial 1 was to test the concept of increasing respite by alternating within one swathe and Trial 2 was to test combining 2 curving SID routes into one. It was this test that caused all the disturbance, by combining the two routes. Whatever the modelling may show about this combination, there is a potential for the noise levels actually on the ground to exceed those that would be anticipated when using just the noise certification data that has been obtained under ideal weather conditions. For example, a cross wind will require extra engine thrust and therefore will produce more actual noise than would be modelled. Also we note with some concern that landing gear is lowered at significantly different points on the approach and this also influences the noise emissions. It is for reasons such as this

that there is an argument that independent noise monitoring should be undertaken. If monitoring were done it could prove that noise levels are actually worse than are indicated by modelling.

According to the HAL(AMEC) report, more trouble appears to be in store for Teddington, as shown in Figure K.6 (HAL Appendix K) where it is proposed to combine the 4 south-easterly routes into just one, and with zero respite, when on easterlies.

The NATS study for the Commission also makes plain the 4 routes into one point, with its maps on pages 41 and 42, (Appraisal Module 14: Operational Efficiency: Airspace Efficiency Report.) where 4 routes converge over Bushy Park, with a further concentration of routes over Richmond Park.

Even though Fig K.6 indicates there will be further noise disturbance ahead, it does not identify the full scale of the disturbance as it combines two different types of metric. The take-off swathe is plotted with a width of 500m to either side of the swathe centreline, out to 6000 feet altitude (or about 15 nautical miles from the airport). At that height/distance it may well have vectored off, as Air Traffic Control can give permission for that, once it is over 4000ft. So the concentration of noise at 6000 ft may well be overstated, but it is nevertheless helpful to see where they go. However at the lower altitude, where the plane leaves the 57 LAeq contour, it would be louder, yet produced only the smallest dent on the contour shape. In other words, the noise from the 1000m swathe has not been modelled and so the swathe is only an indicator of location and not a noise indicator. At low altitudes the planes are much louder and this would be demonstrated if plotted in noise footprint terms. The fact that noise levels have probably been artificially truncated might be demonstrated by Figure K10 – where the red shading stops at the 57LAeq boundary. So the suspicion must be that the noise modelling is incomplete and the correct noise levels have therefore not been factored into the contour analysis by either HAL(AMEC) or the CAA. Taking this one stage further, it becomes necessary to question which other tables and contours are over optimistic for the future. Not only should the impacts be underpinned by using sound science responsibly but a fresh social survey to establish current sensitivities to noise is needed. As demonstrated by the WHO, the European Space Agency and the annoyance and noise study (ANASE), people are now significantly more sensitive to noise than they were when the 57 LAeq was first established. This greater sensitivity point must surely require a re-evaluation of all the new flight path proposals, and the plans for respite in the Commissions deliberation of the options. Another important point to remember here is that there is significant pressure for new housing, which will be doomed to become adversely affected, depending on the location, if the expansion were to go ahead at Heathrow.

As we understand it, if the WHO figures were used, the number of people who would be shown to be affected would increase dramatically. Not to use the WHO figures, when the consequences are so large, would be to mislead the public and potentially infringe human rights.

Regarding location, it is important that definitive flight path maps should be provided. It is appreciated that the future airspace(LAMP) process may yet move flight paths

with the existing 2 runways and that air traffic control (NATS) are not in a position to produce accurate future noise assessments until any associated with a 3rd runway has been decided. It may well be a vicious circle, but how can the Commission make a recommendation based on uncertain flight paths? One unresolved issue is whether it is right to concentrate routes or disperse them. As there cannot be a right answer that will please everyone, what can be agreed on is that it would be wrong to put the extra capacity at Heathrow. The population count of those affected should be enough to convince the Commission against a Heathrow decision and this would be increased if the WHO approach was adopted.

There is an issue with the HAL use of the east/west wind split of 20%/80% (HAL(AMEC) Appendix D23). This low proportion of easterlies has the effect of further minimising the average mode contour lobes out toward Teddington. A shrunk contour then encompasses fewer people, which makes it more attractive as a low population route, which is then ripe for a higher number of aircraft to be routed overhead. This issue illustrates the point that seemingly insignificant numbers can tip the balance and seal the fate of a community. The worry then is, out of 8000 pages of evidence from the Commission, what other issues have not been unearthed in the time available, yet will influence the final selection of which runway option will go forward for Government consideration and approval. This issue demonstrates that very careful scrutiny is needed and a precautionary approach should be adopted. It remains our view that it would not be right to select Heathrow for expansion. In our view the Commission must be assured that the facts it is using are right before coming to a decision.

The question of respite is an issue, as there will be a reduction in respite with 3 runways compared with the current 2 runways. A point well made in the APPG report is that *'the loss of respite did not conform to the Aviation Policy Framework objective to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise'*. The current daytime 50% alternation respite will inevitably reduce, with the extra runway's worth of aircraft to accommodate. According to the easterly take-off mode presented in Fig 6.9 HAL(AMEC), respite would reduce down 50% on most easterly routes, compared with the current 70% to 80%, depending on the prevailing west/east wind split. The map in fig 6.8 shows some westerly landing routes. It does not show the existing straight line ILS landing paths with its 50% alternation respite. Instead it shows some curving paths close to the ILS route, at 75% respite. It also shows some outer curving approaches at 50% respite. Both of these might sound satisfactory until it is remembered that these routes are not currently on designated flight paths and only get aircraft overhead on a random basis, as planes join the ILS at different points along the route, even as far east as Greenwich. Whilst there will be some undoubted benefits from curved approaches, to those who are under the current ILS, to drop from near 100% respite to 50% would cause real physical distress. Most of the people newly 'overflowed' by the indicative presentation in Fig 6.8 will have no idea that the future of the noise climate is under threat, given that they live nowhere near Heathrow or its known flight paths. This comes back to the point that people need to know with certainty about any proposed flight paths, and if there is no certainty then the decision should not be made to blight them with a new runway.

Another of the over optimistic points is the HAL assessments using exclusively 3.2 degree glideslope for 2030 and 3.5 degrees for 2040, against the current practice of 3 degrees. We have no certainty that either of these gradients will be achievable, so it must be wrong to mislead the assessment using them. A further issue is the assumption that the steeper angle will be quieter at ground level. However, if the angle is combined with a curved approach there will almost certainly be greater engine use to power round the curve. This will increase noise levels, which would cancel out any advantage.

There are some important issues raised in the 'Noise from Heathrow Airport' Inquiry by the APPG, which we support. We understand that the Commission already has the full text of the APPG findings. The issues raised are that the noise assessments of Heathrow's flight paths should be based on the Lden indicators down to the WHO guideline value levels (day and night). (Inquiry Topics 1 and 10). Then the WHO assessments should be supplemented by other noise indicators to take account of the fact that the average noise level does not reflect the full reality of noise exposure from the flight paths (i.e. the criticism levelled against Leq by the T5 Inspector). (Inquiry Topic 2). The APPG also concluded that the combination in future of less noisy aircraft and less noisy operational procedures individually and collectively: (a) are not dependent on the development of a third runway (i.e. they could be introduced with the two existing runways; and (b) are unlikely to reduce the size of the noise contours on anything like the reductions achieved between 1980 and 2003. (Inquiry Topics 3 and 4). It was noted that the noise assessments were based on indicative flight path routes which may not ultimately be the flight paths that are adopted, so all potential flight paths should be identified and noise assessed, with a clear indication of the areas and number of people that would be overflown on a regular basis that are not currently. (Inquiry Topics 5 and 6). On the issue of respite, the APPG found that the benefits of runway alternation would be diminished with a third runway (except in the night period, but at the expense of areas not currently overflown by night flights) and that the 8-hour runway alternation should be retained in the day period, with or without a third runway (Inquiry Topic 7). There is a clear call for an end to night flights, with or without a third runway. (Inquiry Topic 8). In terms of capacity, the APPG found that Heathrow with a third runway would be full by or before 2040, with a re-emergence of resilience problems with three runways prompting calls for a fourth runway and/or more movements in the night period, both of which would have obvious adverse noise implications. (Inquiry Topic 9). A conclusion from this point is that a third runway would only be an interim solution to the congestion problems and that more fundamental thinking about managing the growth in passenger numbers is necessary.

Night flights

The current restrictions on night flights are due to be reconsidered by the Government in early 2016. This may be after the Government has decided on whether or not to add runway capacity. Whatever the decision on an extra runway, it remains our policy to seek a night ban, 2300 – 0700 to protect our residents and enable them to sleep at night. We are resolved on this issue and will fight as necessary if the Commission were to promote any increase in night time movements. Although there is a need to encourage more efficient aircraft, regardless of any expansion, there is also a need to increase fines, to discourage the

more polluting aircraft. This would help to put pressure on the phased withdrawal of night flights.

We are concerned that the Airports Commission indicated great insensitivity to the impact of flight paths and night noise by recommending in its interim report that there should be an increase in the number of night time movements at Heathrow, i.e. before 0600, in order to relieve the post-0600 congestion. Although the night trials did not go ahead, it alerted residents to the issue that there was potential for the night time noise to get worse. Hence our resolve, together with our residents, to fight this issue at every turn.

Open Spaces

One feature that is made plain in the indicative flight path maps is how the flight paths will remain routed over our largest open spaces, namely Bushy Park, Richmond Park and Kew Gardens. It is appreciated that the flight paths have traditionally been routed over the parks in order to avoid the locations where people live. Whilst we clearly wish to avoid extra planes flying over people, it does not change the issue that more planes will add to the blight of our high quality public green space. We should be protecting our heritage, not blighting it further. It should be noted that our parks are used as an important amenity for people from far afield, not just from the borough. A related point is that people need to be able to enjoy their own garden space.

Kew Gardens lies directly under a flight path. The N70 frequency contours indicate that there will be noisy aircraft with each of the proposals and for all the years of assessment. However it does not need to be that way. Relative tranquillity could be maintained with a 2 runway airport, if the alternation pattern was adhered to for the full 8 hours. Unfortunately the current arrangement destroys the tranquillity by allowing for flights to go out of alternation to the 'wrong' runway. A 3rd runway would further dilute the respite down to maybe 4 hours.

There is local concern at the air quality in Kew Gardens. Any pollution there can only get worse. Increased flights cannot improve the situation.

It is clear that Heathrow would be the wrong place for extra flights.

Education

It must be a serious omission to exclude children from the assessment of the impacts on wellbeing. As indicated, this leads to underestimating the cost associated with airport noise and the long term effect on children's educational attainment (Section 11: Quality of life, page 41). We have schools in the Borough which are under flight paths which cause disruption, both indoors and out. Once again, those not currently under a flight path may not be worrying until the aircraft are overhead, when it would be too late.

Air Pollution

We are concerned that a detailed air quality assessment has yet to be carried out and can therefore not be assessed and responded to as part of this consultation. However it does give us the opportunity to point out the situation as regards the Borough. The Commission's modelling assessment area should include the

Borough, on the basis of likely extra air pollution being emitted by Heathrow related road traffic. The reason for this to be included is that it was found to be a feature in the modelling assessment for the operation of Terminal 5. The T5 modelled zone included both major and minor roads in the Borough, with 5% and 3% increases in road traffic respectively. It seems a reasonable assumption that a third runway should generate similar extra traffic and therefore extra pollution, within the Borough. It further lends weight to the issue that minor roads have not been assessed around Heathrow, let alone out to the Borough of Richmond. With EU action pending against the UK for air quality infringements, it is imperative that the minimising of air pollution levels, to below the legal limits, must be pursued. Taking the precautionary approach, this must again point against adding a 3rd runway and such issues need assessment to inform the Commission's decision.

Health

We are concerned with the evidence linking noise pollution with a range of health issues, including the risk of cardiovascular illness, mental health and wellbeing issues resulting from broken sleep, stress, quality of life and the wider impact on education and the use of green space.

This issue was recently highlighted in the Borough's Annual Public Health Report (http://www.richmond.gov.uk/annual_public_health_report_2014_15.pdf).

We strongly request that a bespoke Health Impact Assessment is carried out for Richmond Borough, for each option, at the current stage. Waiting until the selected one has been chosen will run the risk of the wrong option being chosen. Although potential health impacts are addressed to some extent in the proposals, it is important to raise the profile of these impacts. We would suggest that these are brought together in a coherent way so that the full extent of impacts can be assessed and mitigation measures designed and costed. Information from the HIA should be used to feed into the decision making process.

Carbon

The Consultation document indicates (para 2.41) that the Commission intends to carry out further work to complete a fuller economic assessment of the case where UK aviation emissions are constrained to the CCC planning assumption of 37.5MtCO₂e for its final report in summer 2015. This seems to be too late and a significant omission at this stage. Also, there is the risk that, if the reductions needed [in other sectors, to make up for the aviation expansion] are at the limit of what is feasible, it makes any new runway too risky a venture to recommend.

Surface access

There is a general concern that the surface transport impacts may be understated and not properly evaluated. The Airport Commission's assessment only looks at the surface access impacts of 103.6 million passengers per annum (mppa) at Heathrow and 65 mppa at Gatwick in 2030. No assessment has been carried out to take account of the 149 mppa/ 96 mppa that the Commission estimate to be the maximum potential throughput of these proposals. This worse-case scenario should be properly assessed with appropriate sensitivity tests, otherwise the impacts and infrastructure required to support the long term growth of these airports could be underplayed, placing a strain on a transport system that already struggles to meet

demands from increasing population and employment growth in London and the south east.

Overall Heathrow predicts that by 2030 there will need to be a doubling of trains serving the airport, from all directions. They wish to plan this with stakeholders to ensure surface access is embedded in the strategic long-term planning process of Network Rail. The Airports Commission is working on the assumption that there will be extra trains and spare capacity on Crossrail and the Great Western mainline (GWML) available for additional passengers and luggage. However, TfL analysis has shown that there is little extra capacity beyond 2030 to accommodate Heathrow expansion. Options such as the Southern Rail Access (SRA) could spread Heathrow access across a greater number of lines and therefore improve accessibility, however this requires further detailed assessment by Network Rail, which is required before any firm conclusions can be drawn.

There is a concern that the rail modelling undertaken has used older models, without the latest population forecasts. The peak hour used for the purposes of assessment is 7-8am, rather than the traditional peak hour for London's surface access networks. The Commission needs to demonstrate that it is capturing the period when combined airport plus background demand is at its highest. Heathrow passengers using these services are likely to be carrying luggage, and there is a concern that this could have implications for train capacity and also boarding/alighting times, impacting on the service for the rest of the travelling public. It is considered that the Commission has generally failed to demonstrate that the extra airport demand will not cause additional overcrowding for non-airport users.

Heathrow Express will be a crucial part of surface access, particularly for business passengers and this reduces the pressure to increase services through the Borough of Richmond (LBRUT). However, the comparative cost of Heathrow Express, compared to other rail and underground services means that the latter are likely to experience the greatest demand and therefore pressure on their services. A new SRA line from Heathrow calling at stations including Staines, Richmond and Clapham Junction with services terminating at Waterloo is proposed to help facilitate surface access to Heathrow. This will have an impact on level crossing down times in the borough, which act as a barrier to movement, particularly during peak times when level crossings are down for 40-45 minutes within the hour and will not be supported by the borough. The increased traffic congestion from additional down time adds to the negative economic and pollution impact for the Borough and this ought to be offset against any benefit accruing for Heathrow.

It is understood that the City of Westminster has concerns about the ability of Paddington and Victoria stations to cope with the additional demand placed upon them from growth at Heathrow. This will have an impact on any LBRUT residents using these stations during peak hours.

Given the above constraints and issues, the suggested modal share for rail at Heathrow appears optimistic at 43% (up from 28% in 2012), given that little new infrastructure is provided over and above what is already considered to be required by TfL to meet existing background growth projections. For instance, TfL estimates that if only one third of the predicted mode share shift is achieved, this could result in an additional 1000 peak private car trips on the highway network, based on initial

estimates using Commission data. This would be on top of the approximately 20,000 additional peak hour airport related staff and passenger movements forecast to be generated by new runways at Gatwick / Heathrow in 2030 (which will have to be accommodated in addition to background growth).

The highway demand forecasts assume significant modal shift to rail, which may not be achievable without additional investment in the rail network. We have not seen any evidence of modelling of the impacts on the local road network. Although the airport does not sit in LBRUT, it is not clear to what extent traffic growth on the roads in the vicinity of the airport will have knock on implications for LBRUT roads, and therefore air quality levels in the borough. TfL has advised that the M25 and M4 are predicted to reach capacity by 2030 even with planned capacity improvements, but no expansion at Heathrow. The air quality assessment does not take account of the road traffic and congestion arising as a result of the growth of the airport.

‘Consideration needs to be given to how employees living locally will access the airport. TfL has advised that the Commission has adopted substantial employment efficiencies that have the effect of reducing staff demand for surface access. At present the airport operates at around 1056 staff per mppa, but the airport proposes to reduce this to 870 staff per mppa. Whilst some staffing efficiencies may be possible, the proposed increases in terminal capacity will require expanded immigration/security areas, more shopping areas etc. The Commission also seem to adopt an optimistic assumption for the number of staff reporting in each day (57% for LHR, which seems very low, compared to 70% at Gatwick). Such dramatic staffing efficiencies therefore appear to be unrealistic and the basis for assuming such a reduction in staff numbers per passenger needs to be demonstrated with further evidence. There also needs to be a recognition that many employees will be travelling from further afield than the catchment currently identified in the assessment, with implications for the transport network.’

The promoters of Heathrow expansion are proposing to improve local bus connections for local residents and businesses to help gain access Heathrow, which will go some way to encouraging use of sustainable transport to access the airport. Heathrow’s good track record of providing financial support for bus services should be supported and the Council encourages their enthusiasm to continue and possibly enlarge this programme.

To date there has been a very limited assessment of predicted freight movements to/from the airport, and the implications this will have for strategic and local road networks in the vicinity. The Commission says that a freight assessment will be carried out as part of a future phase of work, given the predicted low level of movements compared to passenger/employee movements. However, given Heathrow’s proposal to double the amount of cargo handled from 1.5 million tonnes per year today to meet the forecast demand of 3 million tonnes per year in 2040, it is considered that this assessment is required now. A variety of mechanisms, including freight consolidation, should be considered as a way of minimising this impact and low emission vehicles used where possible.

Heathrow recognises that there is significant potential to increase cycling levels in the Heathrow area. However, there is no assessment of this in the Airport

Commission's analysis. Possible route improvements should be identified as part of the surface access assessment, in recognition of the role this could play in helping employees living locally to access the airport and minimise the impact on public transport services.

A thorough assessment of the infrastructure needed to support the worse-case scenarios should be undertaken and the cost of this provision should be included within the surface access cost estimates.

Safety

Safety is a crucial issue for the residents of Richmond. Thus far, despite numerous near misses, Heathrow has avoided a catastrophic disaster. Given the densely populated areas adjacent to the airport it is obvious that the magnitude of any accident would be massive. Instead of increasing the risk of such an accident, by increasing the number of aircraft using Heathrow, it should be clear that it would be safer to reduce aircraft numbers.

Over the years we have had the issue of bodies falling in North Richmond and East Sheen, where the wheels are lowered. It's our staff and residents who witness the horrific consequences of this, but each event also points to a security breach at the departure airport that could be maliciously exploited. We remind the Commission that, immediately following the terrorist attacks of 9/11, aircraft were prevented from overflying the London urban area to reduce a perceived threat.

We are concerned that the Airports Commission underplays concerns about safety, and is over optimistic that everything will be alright. The language from the two Heathrow proposers shows a similar approach. The response of the CAA gets much nearer to the point, and it wishes to withhold approval in some cases to the time when the new runway is approved, built and in operation. This seems a little late to have concerns. It then raises the deliverability issue – i.e. there is the risk that the capacity will not be as great as designed, and it would have been better to build that capacity somewhere else.

In spite of the safety assessments made, we still have no assurance that the most basic concern has been addressed. It seems self-evident that an increase in movements will increase the risk, however carefully those risks have been assessed. Where there is uncertainty over safety, we are not happy to be experimented on, in the hope that everything will be alright.

The following response references are based on the text in the main Consultation Document (CD) and the CAA document CAP 1215 – Module 14: Operational Efficiency preliminary safety review.

We note that the two competing proposals for an extra runway at Heathrow have essentially the same wording both same re safety.

CD 3.99 '*The Heathrow Extended Northern Runway proposal is not considered to present any significant safety or security risks and is considered adequate to deliver an increase in ATM capacity to 700,000 per annum (from 480,000)*'.

CD 3.148 *'The Heathrow North West Runway proposal is not considered to present any significant safety or security risks and is considered adequate to deliver an increase in ATM capacity to 740,000 per annum (from 480,000).'*

Response – the language of 'significant' and 'adequate' looks suspiciously like boxes to tick, so that the options go through to the next round, rather than grasping the point that the safety risks are already high and we should not contemplate them being permitted to get worse.

Safety - Extended Northern Runway

CD 3.101 *'An issue the Commission has considered carefully given the novelty of the proposed runway design relates to any concerns that may arise in relation to the safety of the scheme. On the basis of the available evidence, the Commission believes that the proposed runway option can be operated, and proven to be operable, in a safe manner. The Commission recognises that further work with the CAA and appropriate international bodies would be required to validate fully this finding. In the event that full safety assurance cannot be provided, it is likely that the two runways would not be capable of operating independently, resulting in a lower runway capacity. However, all expansion options under consideration will require some further work to fully assess their safety implications at the appropriate juncture in the detailed design process.'*

Response – this is an example of the optimistic wording from the Airports Commission, for the novel but untested extension design solution. We stress that the 'appropriate juncture' for rejection must be now, rather than waiting till the runway is operational.

CAA document CAP 1215 expresses some serious concerns over the novel concept of the two in-line northern runway design, which they refer to as the 'Heathrow Hub' option.

CAP 1215 para 2.27. *'....a particular safety concern that must be resolved and fully articulated by the proposer is the safety risk between missed approaches and departures. In the event that the safety risks cannot be mitigated sufficiently, it is expected that dependant operations could be conducted, but this would result in lower capacity and/or less operational flexibility'.*

Response – the issue of lower capacity and/or less operational flexibility indicates the link between safety and deliverability, as mentioned above.

CAP 1215 para 2.30. *'It is noted that 27Rext (extended section) will be limited to CAT 1 operations'.*

Response – We note that CAT 1 relates to the visibility range and does not permit instrument landing under foggy conditions. Safety is clearly an issue here, as it the issue of capacity and resilience. Instead of these two aspects being improved with an extra runway, the missed landings will become a burden to be accommodated on either the other two runways or at another airport. It would be better to put the capacity somewhere else rather than to compound the problem with an extra runway.

CAP 1215 para 2.43 *'Safety assurance can only be accepted after the proposer provides a fully detailed concept of operations (encompassing the entire operation) for how it intends to meet the various safety requirements placed on it by the applicable rules and regulations. This can only happen following planning consent and potentially after a permit to operate is in place. In this case the scheme would need to be assessed against the requirements in place at the time'.*

Response – We appreciate the CAA logic here, but it remains a concern that there is no certainty until so far along the decision path.

CAP 1215 para 2.46 *'At this stage, and on the basis of the limited information that is currently available, Gatwick appears to have few complex safety and deliverability risks, however, more detailed analysis will be required to confirm this with any degree of certainty'.*

2.47 *For both Heathrow options, Missed Approach Procedures for both Heathrow and RAF Northolt remain a major design issue and a major challenge to deliver a safe and operationally effective environment due to close proximity of RAF Northolt and its runway axis (25/07).*

2.48 *In addition, the Heathrow Hub proposal is a new concept which will require the safety risk between missed approaches and departures to be articulated as well as a human factors assessment. In general for Heathrow options helicopter interactions / crossings will also need to be addressed'.*

Response – We emphasise the concern that Missed Approach Procedures are a major challenge and that the Heathrow Hub proposal still requires a 'human factors' assessment, including pilot workload and human error.

CAP 1215 - Appendix A - response by Heathrow Hub to CAA questions.

Page 18 – *'Airborne conflict will be modelled within the full safety assessment - initial high level assessment show no undue risk is added'.*

'Go-around safety is being considered. There has been a high level assessment of go-arounds, including late one-engine-out go-arounds, and it is not thought undue risk will be added under this concept'.

Response – this response from Heathrow Hub to the CAA is of concern. The references to *'no undue risk'* indicate the optimistic approach, that all will be fine, rather than the more precautionary approach that is needed.

CAP 1215 - Appendix B - LHR North West Runway

Page 26 – Note – *'This initial assessment is based on information provided at an early stage and does not constitute any 'approval' by the CAA. A full concept of operations and safety justification will need to be provided by promoters at the appropriate stage in the future, which could be after planning permission or for certain elements, even once opened'.*

Page 28 - 2.1 Note: *'The operation associated with noise respite periods 2 and 3, where aircraft are departing from adjacent runways may be particularly difficult to*

achieve given the staggered position of the northern runway. Further work will be required to understand whether these modes are viable.'

Response – taking the two points together – we note that the respite proposed may not be viable and we may not know that until the runway is operational. That is a bit late for people who need to assess what level of lost respite they can tolerate.

Page 30 para 4.1c - Airborne conflict?

'Currently the published go-around procedures for Heathrow northern runway are to continue straight ahead to a specified altitude followed by a turn, which should be followed where communications are lost, although this is frequently amended by tactical ATC instructions. Outer runway go-arounds may need to be published with a turn at low level. The effects of different published procedures for pilot workload or human error would need to be assessed.'

Response – with the different respite rules by time of day and different go-round rules for the different runways, it seems inevitable that there would room for human error, thus increasing the risk of an incident or accident.

CAP 1215 - Appendix B - Heathrow Hub

Page 35 – para 2.1 – *'The promoter is suggesting up to 5 different modes of operation a day which has the potential to increase risk of human error. The proposal will need to include methods of interlocking the ILS and lighting to ensure that pilots land on the correct section of the northern runways. A human factors assessment should include this possibility'.*

Response – this highlights the extra risks of the extended runway configuration proposal.

Safety conclusion - Although safety is presented as a minor topic, in terms of the amount of paperwork allocated to it in the consultation papers, CAP 1215 convinces us that there are a number of serious safety hurdles to overcome, with each of the options. Our concern remains, that an increase in flights will increase the risk of accident together with increased health impacts, and the existing risks are already too high. The expansion of Heathrow should not go ahead because the impacts are not fully explored or understood at this time.
