

Richmond Heathrow Campaign (RHC)

CAP 1616 Stage 2 Initial Options Appraisal - Heathrow Request for Information, Addendum 25 April 2024

An RHC Request for information concerning CAP 1616 Stage 2 modelling for Heathrow was emailed to Heathrow on 24 April. This addendum should be read in conjunction with the original request and expands on the requests for:

1. Flight Frequency data (see Annexes E, F and G) attached to this addendum.
2. Vertical dimension and angles of ascent and descent (see Annex H).
3. Fleet mix, passenger loads, occupancy and noise at source. (see Annex I).
4. Population exposed to Heathrow noise (see Annex J).

We were concerned in July 2022 that the flight path modelling would be a ‘black box’ as far as we are concerned. We wrote to Heathrow on 18 July 2022 to try and head off this problem and Heathrow responded on 3 October 2022 (see Annex K).

Richmond Heathrow Campaign remains concerned as of 25 April 2024 that we are not able to properly assess the Initial Options because of lack of information on the modelling process as highlighted by our Request for Information and its Addendum dated respectively 24 and 25 April 2024.

Peter Willan
Chair, Richmond Heathrow Campaign
25 April 2024

Richmond Heathrow Campaign represents three amenity groups in the London Borough of Richmond upon Thames: The Richmond Society, The Friends of Richmond Green, and the Kew Society, which together have over 2000 members.

Flight path Frequencies 1

Attached is a schematic generated by RHC's airspace model for the existing 30 flight paths. The departure frequencies are shown as an example and are for a previous year (probably 2016). The frequencies are determined by the airlines and change from time to time for commercial reasons. The frequencies change according to summer and winter season.

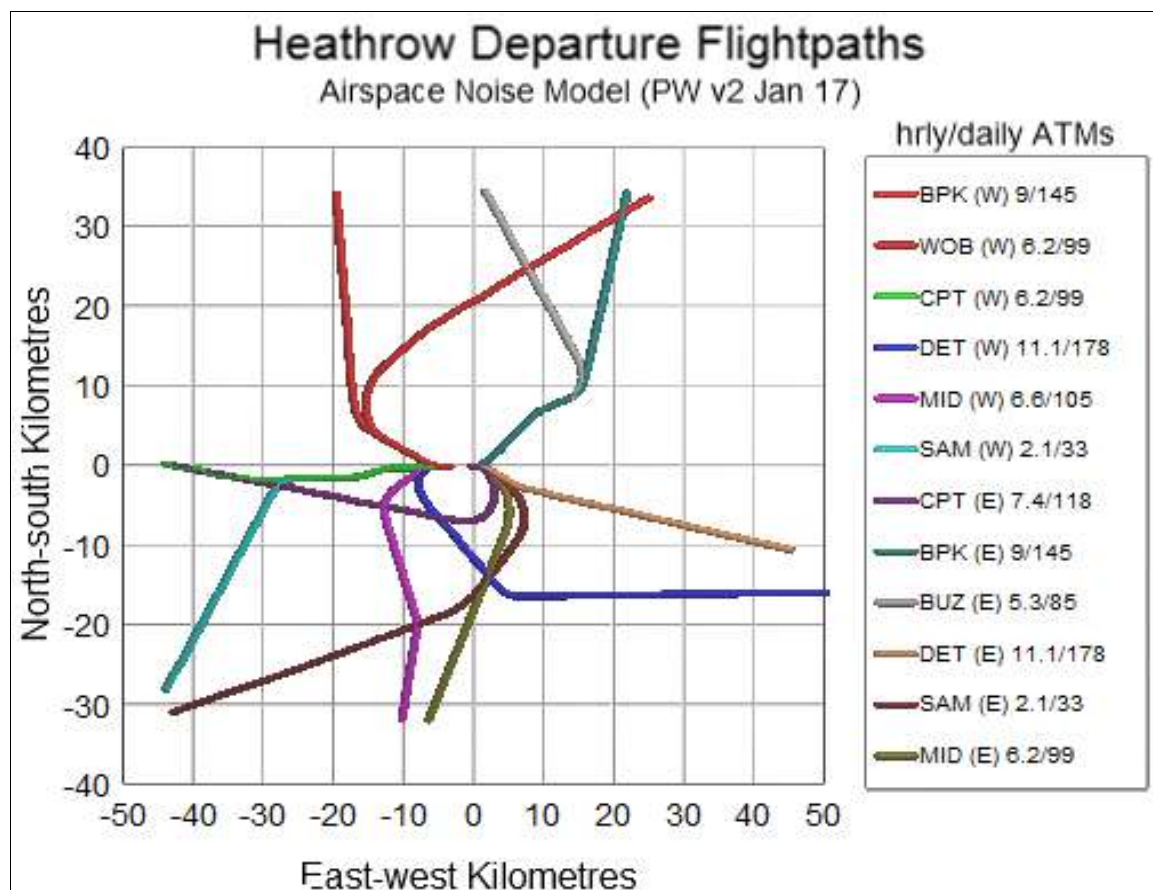
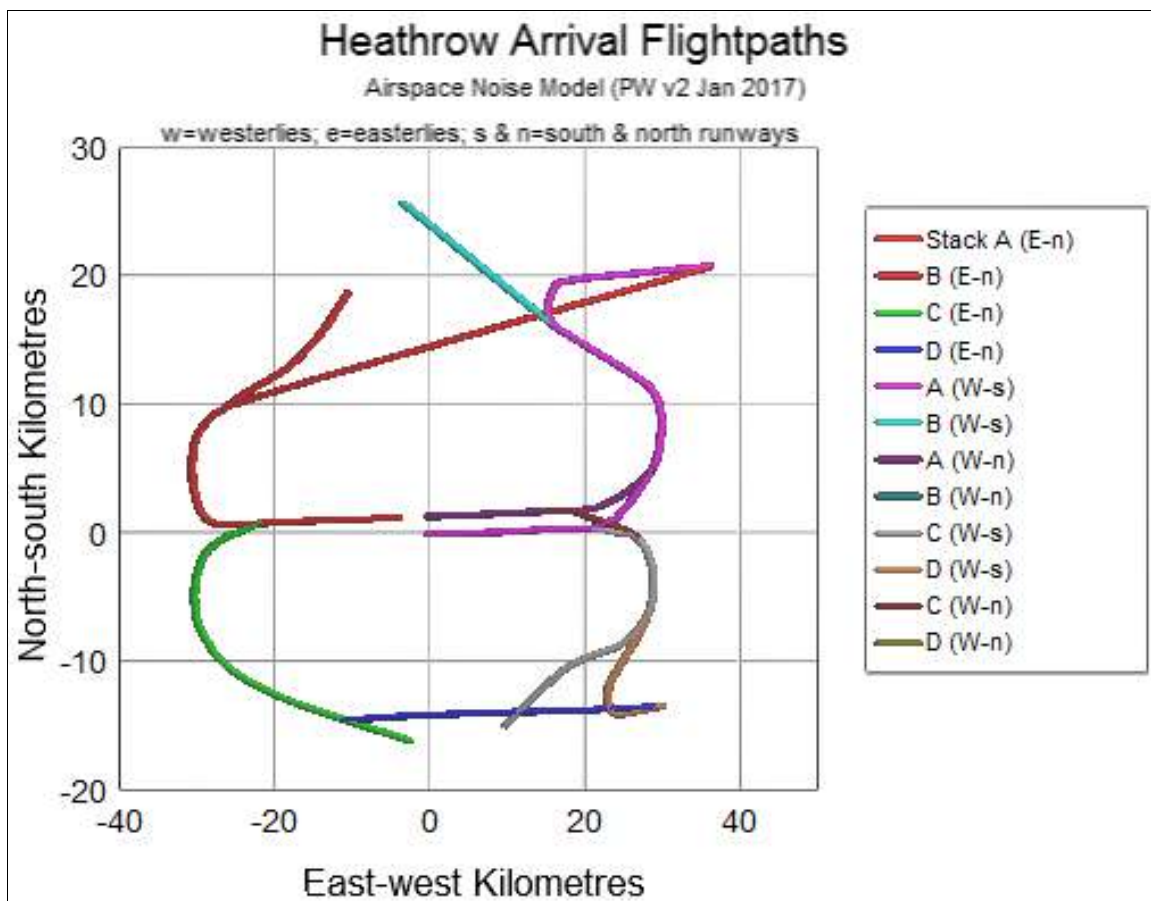
The cessation of the Cranford Agreement increase the number of flight paths from 30 to 40, which number is presumably used for the Initial Options. The 40 flight paths comprise 4 arrival points for the two runways and 4 stacks, i.e. total 16 arrival flight paths and 4 departure points for the two runways and 6 exit points to the upper airspace, i.e. 24 flight paths - totalling 40 flight paths.

The schematic is derived from the current departure SIDs and RHC's estimate of the centre of vectored arrival swathes.

In order to properly assess the Initial Options we need Heathrow's assumed frequencies for each departure and arrival flight path. In the case of arrivals it would help to know the assumed location of the joining points for the final approach.

HEATHROW FLIGHT PATHS

Prepared by P Willan, Airspace Noise Model v2 12 February 2017
 FOR ILLUSTRATION ONLY - TEST DATA



ANNEX F

Flight Frequencies and Noise Contours

The charts over-page illustrate the impact of flight frequency on noise contours. These are derived by Richmond Heathrow Campaign's Noise Model and are indicative and for illustration only. They are for Heathrow's Brookmans Park (BPK) departures on Westerlies.

The charts show both the lateral noise contours and noise cross sections. Charts 1A and 1B are for a single flight. Charts 2A and 2B are based on an hourly frequency of 9 flights an hour and it can be seen how much smaller the noise contours are. Charts 3A and 3B are for the Day. If there were alternation these contours would be smaller but in this case there is none and they match the hourly contours. Charts 4A and 4B are the annual contours and take account of the westerly/easterly mix and are still smaller. It can be seen how important it is to be clear in any published contours what is the basis on which they are prepared.

Richmond Heathrow Campaign has not been able to properly assess the Initial Options because the published data is unclear on the model basis for contour preparation. We learned late in the process that modelling is not on a single flight basis but the basis for each flight path remains unclear, especially in relation to respite.

AIRSPACE NOISE MODEL (vs pw 2 - 4.1.17)

Case 8 - 17.1.17 Heathrow Brookmans Park (BPK) departures on Westerlies

TEST ASSUMPTIONS AND RESULTS. FOR ILLUSTRATION ONLY.

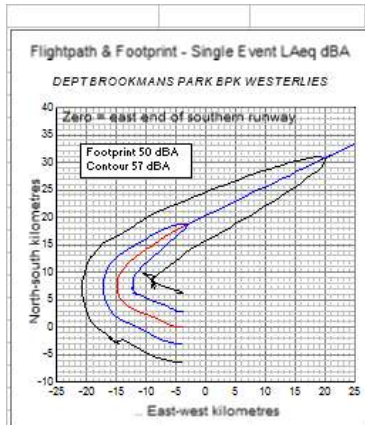


Chart 1A

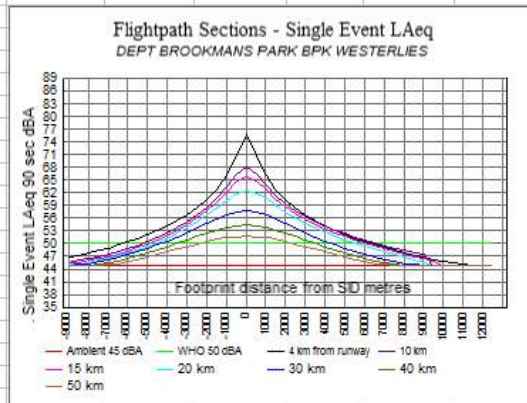


Chart 1B

INPUT		
Case	8	17-Jan-17
Flightpath	DEPT BROOKMANS PARK BPK W	
Gradient	degrees	NAPD 1&2 avg
Speed at 12k ft	knots	320
Ambient	dBA	45
Footprint	dBA	50
LAeq 90s 3kft	dBA	65.9
Hourly flights	number	9
Daily sched respite	hours	0
Yrly west-eastlies	%	70%
Prepared by P Willan		
Model version	vs 2 pw 4.1.17	

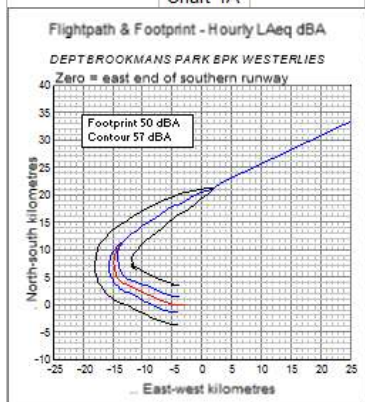


Chart 2A

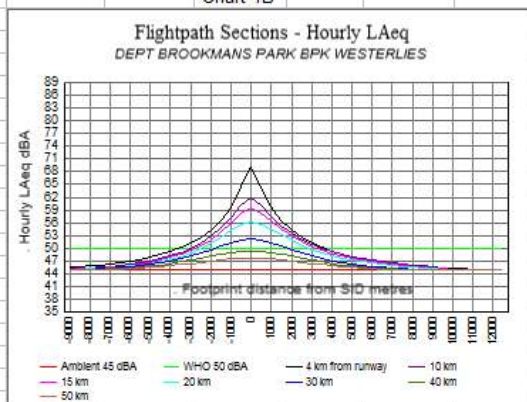


Chart 2B

1 foot = 0.305 metres
 1 statutory mile = 1.609km
 1 nautical mile = 1.852km
 1 knot = 1 nm/hr
 1 knot = 1.150779 stat miles/hr
 1 knot = 1.852km/hr

TEST DATA
 For ILLUSTRATION ONLY

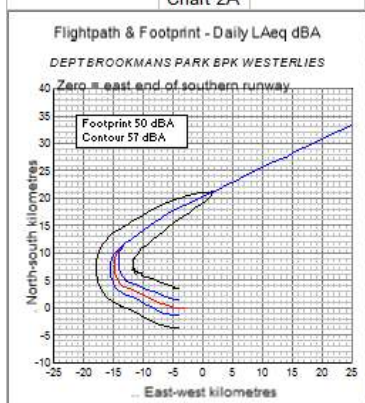


Chart 3A

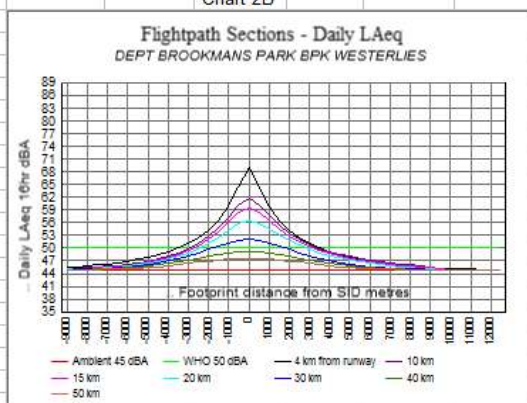


Chart 3B

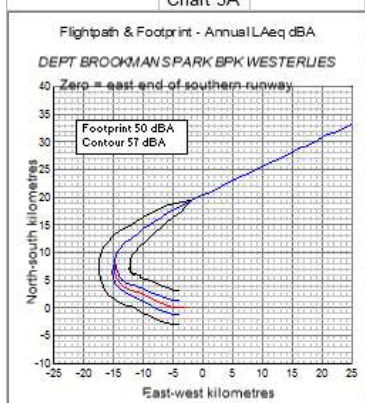


Chart 4A

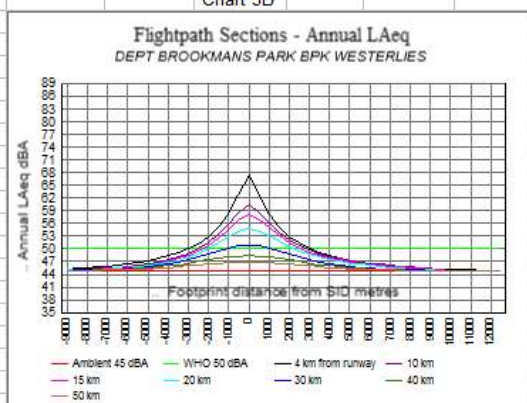
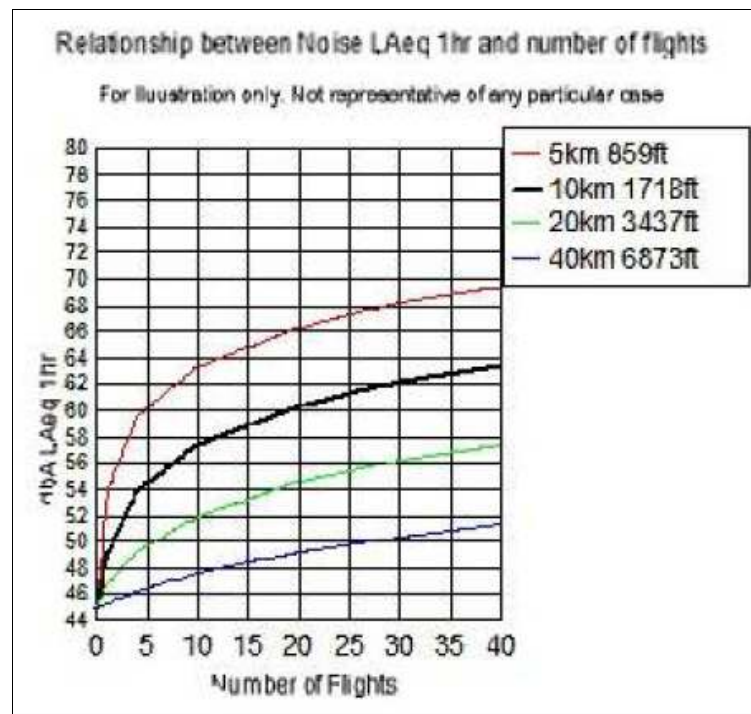


Chart 4B

Flight Frequencies (Traffic volumes)

The number of flights on Heathrow's departure flight paths number between 1 and 12 per hour per flight path. Arrival numbers vary between 10 and 40 flights per hour per flight path. The following chart illustrates the acoustic impact in decibels from increasing flight frequency. The decibels rise much faster at lower frequencies. This is not to suggest the effect on people is less at higher frequencies; the dose-response relationship has also to be taken into account and the higher the decibel level the greater the negative effect on health and quality of life.

The purpose of this Annex is to illustrate the importance of flight frequencies being published for CAP 1616 Stage 2. **Richmond Heathrow Campaign has not been able to properly assess the Initial Options in the absence of flight frequency data.**



ANNEX H

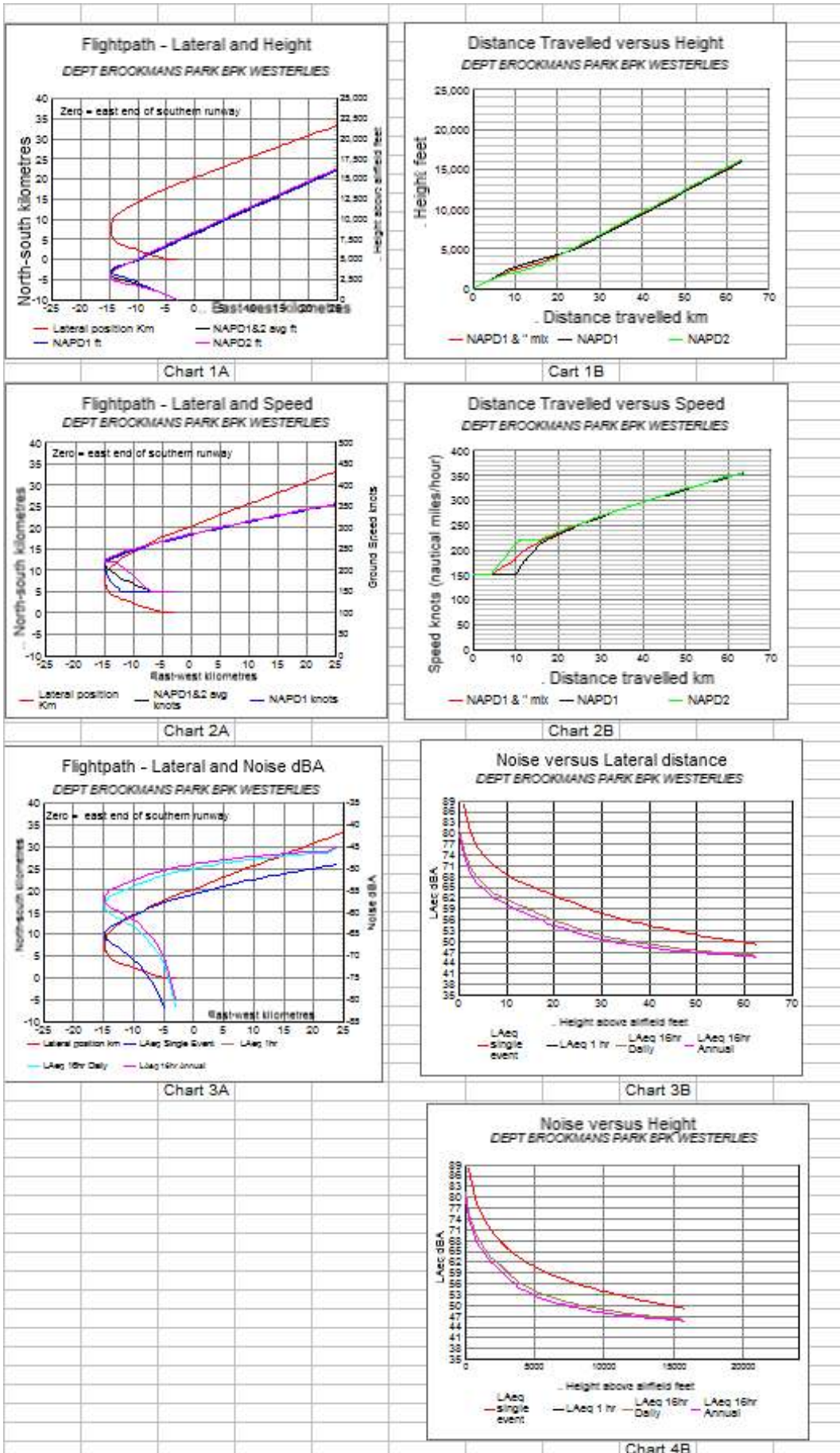
Vertical Dimensions - angles of ascent and descent

The charts over-page illustrate angles of ascent and descent. These are derived by Richmond Heathrow Campaign's Noise Model and are indicative and for illustration only. They are for Heathrow's Brookmans Park (BPK) departures on Westerlies.

Charts 1A and 1B show the distance travelled and height. Charts 2A and 2B show the ground speed which is important for the overflight period of noise exposure. The speed depends on acceleration which shares the engine power and hence noise at source with climb rate. Charts 3A and 3B show the ground noise in dBA with distance travelled (chart heading is incorrect). Chart 4B shows ground noise with height.

Richmond Heathrow Campaign has not been able to properly assess the Initial Options because the published data is unclear on the model basis for the angles of ascent, descent acceleration and speed.

AIRSPACE NOISE MODEL (vs pw 2- 4.1.17)
 Case 8 - 17.1.17 Heathrow Brookmans Park (BPK) departures on Westerlies
TEST ASSUMPTIONS AND RESULTS. FOR ILLUSTRATION ONLY



Fleet mix, passenger loads, seat occupancy and noise at Source

The two charts below are shown as example information for modelling the Initial Options. They show the global fleet mix predicted by Airbus in 2006 through to 2036. In order to properly assess the Initial Options, the Heathrow’s fleet mix and its noise footprint is required. There need to be actuals for 2019 and estimates going forward in terms of aircraft types and their loads and the noise at source. A proxy for the fleet noise at source might be based on the quota count system used for night flights. Presumably the aircraft using the different flight paths will vary depending on the originating/destination airports and route distance, etc. Seat occupancy rates also need to be included in the model.

As far as Richmond Heathrow Campaign is aware none of this information has been published for Stage 2 making it difficult to properly assess the Initial Options.

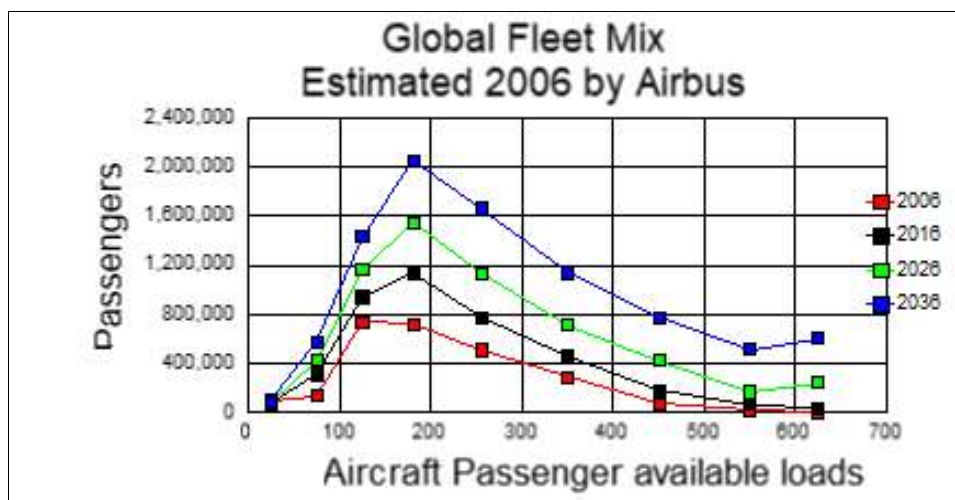


Figure 1



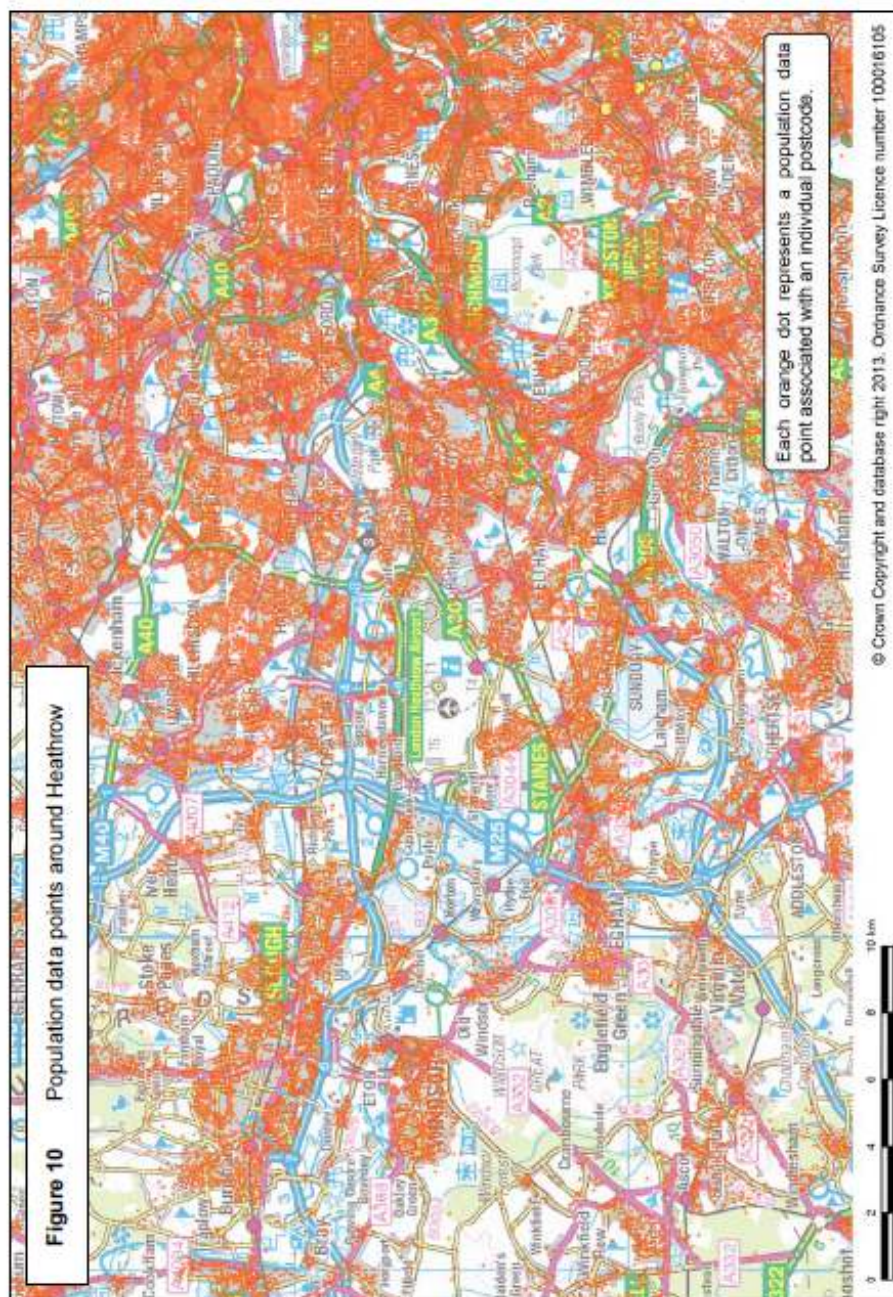
Figure 2

Population Exposed to Heathrow Noise

The population density map below is sourced from CAA- ERCD Report 1301, Noise Contours 2012 and is clearly out of date but is shown here for illustration. Population growth is a major factor determining the number of people exposed to aircraft noise with estimates of London wide growth of 37% by 2050 (London Plan). **Richmond Heathrow Campaign has not been able to assess the impact of population growth on the Initial Options Appraisal because of lack of information provided by Heathrow.** Furthermore, it is virtually impossible to identify locations in the contour maps provided because of the poor quality.

ERCD Report 1301

Noise Exposure Contours for Heathrow Airport 2012



Heathrow Airspace Modelling

Letter to Heathrow Airport Limited from Richmond Heathrow Campaign, 18 July 2022 with responses from Lisa Forshew 3 October 2022 (in italics)

To

Lisa Forshew, Stakeholder Engagement Lead Airspace Modernisation:

lisa.forshew@heathrow.com

cc Becky Coffin, Director of Communities and Sustainability: becky.coffin@heathrow.com

cc Richard West, Stakeholder Engagement Manager: richard.west@heathrow.com

cc Andreas Lambrianou, Independent Chair Noise & Airspace Community Forum:

andreas.lambrianou@heathrow.com

Dear Lisa,

Ref: Heathrow Airspace Modernisation (FASI South) (ACP-2021-056)

Sponsor: Heathrow; Stage 2, Design and Assess

INTRODUCTION

1. The purpose of the letter is to record issues that we consider need to be addressed and to seek clarifications and assurances from Heathrow on the preparation and implementation of Heathrow's Airspace Change Proposal - Stage 2 Plan and the Engagement Process. Stage 2 started in February 2022 and is planned to complete in Q3 2023. We are concerned that the issues be addressed early in Stage 2. This letter focusses on the CAA's CAP 1616 Guidance on the airspace change process as applied to Heathrow's airspace modernisation.

2. We look forward to receiving Heathrow's draft Plan for Stage 2/Engagement Strategy as soon as possible. We have seen a summary timetable but we believe a comprehensive Plan is required, in which a grid sets out the gathering of evidence and the decisions, their inter-relationship and critical-path timing. We thank Heathrow for the arranging a technical workshop on 5 July, which started the process by focussing on the methods and metrics.

[HEATHROW: We will continue to share regular updates on our stakeholder engagement plans for this ACP. We found our workshop on Methods & Metrics to be valuable and we will continue to offer opportunities for technical engagement where appropriate. We will also include a body of evidence for decisions taken on the ACP at each CAA Gateway, and this will be available on the CAA's Airspace Change Portal.]

3. It would help to extend the grid to the 'Full Appraisal' in Stage 3a, ahead of the Public Consultation and to include a Needs analysis in the form of a 'Do-Nothing' scenario and an upfront Project Scoping Study to establish the potential costs and benefits from modernisation.

[HEATHROW: Our Stage 3 engagement plan and proposed timeline will be shared with you when available, but we need to confirm the process for Stage 3 public consultations with surrounding airports before we can provide a more detailed longer-term timeline. This is being

coordinated by ACOG through their Masterplan. The costs and benefits of Airspace Modernisation across the UK are set out in the Government's Airspace Modernisation Strategy. Heathrow's Statement of Need sets out our rationale for the project. We are required to modernise our airspace so "do nothing" is not a viable option. However, in accordance with CAP1616, we will compare airspace design options with a 2019 baseline to show the impacts of the proposed changes at Heathrow]

4. Communities around Heathrow approach Airspace Modernisation with great concern. We already experience very significant adverse health impacts from noise and air pollution from the airport's operations (increasingly so with incremental concentration of flight paths and lower flying). We believe there is a very real possibility of conditions worsening significantly for many communities around Heathrow and the wider area as a result of this process and we seek to engage with Heathrow in avoiding environmental harm.

5. We would like to engage constructively in a process that is transparent, open (i.e. not pre-determined), is evidence based, with time allowed for our consideration and with our contribution being given due consideration by Heathrow. We trust that Heathrow will be open to our raising concerns and differences (both residual and new) during option development and evaluation and that we can work together constructively through Stage 2.

[HEATHROW: Heathrow is keen to engage constructively with interested stakeholder representatives throughout the airspace design process. We have developed a comprehensive programme of engagement, including the recent Methods & Metrics workshop which was set up to ensure constructive and collaborative engagement with our most technically-minded community stakeholders. We have also set up a dedicated email address (airspace@heathrow.com) for stakeholders to share feedback, suggestions and concerns with us.]

6. The CAA's CAP 1616 Guidance (CAP 1616) and the DfT's Air Navigation Guidance 17 (ANG 17), et al, encompass issues that are essential to the Plan and Engagement Process. Communities have collectively expressed concerns regarding both the Design Principles and the initial Engagement Process leading up to the Design Principles submission to the CAA in Stage 1. These concerns are significant because some of the Design Principles are capable of different interpretation and inherent conflicts, which could impact on how they will be applied during Stage 2 of option development. (The Communities' letter of 24 January 2022 sets out these concerns).

7. In places, several relevant policies and guidelines overlap, which raises issues of primacy. Also, roles and responsibilities for the evidence and decisions sometimes overlap. We would welcome assistance from Heathrow in mapping the overlaps so that we are better able to engage with the CAA, DfT, NATS and ACOG, as well as with Heathrow. This should also help identify gaps in policies and guidelines and ownership of the decisions.

[HEATHROW: Our 12 design principles for airspace modernisation were developed to address the varied objectives and priorities of our broad range of stakeholders. CAP1616 recognises that some of the principles may contradict with one another, and at Stage 2A we are developing a comprehensive list of options to meet each of the varied design principles. Later in Stage 2 we

will undertake a Design Principle Evaluation and we will engage with key stakeholders at this point. We will be explicit about how the design principles have been interpreted and the metrics we have used to assess design options against them. The full results of the Design Principle Evaluation will be shared on the CAA's Airspace Change Portal and there will be an opportunity for interested stakeholders to give feedback. Design principles 1-5 have primacy over the other principles since these are requirements that our airspace design "must" meet, including all relevant policy. We will seek to develop options that meet all of the design principles as far as possible.]

8. Having regard to this, we would welcome responses from Heathrow on the Stage 2 Plan and Engagement Process.

STAGE 2 PLAN

The Need for Modernisation.

9. We appreciate that Heathrow has already provided some material to the CAA on the Need for airspace modernisation around Heathrow, including at Stage 1a of CAP 1616, as has the Airspace Change Organising Group (ACOG) in its UK Airspace Modernisation Masterplan.

10. However, at the current stage we would like a greater understanding of the existing problems that modernisation may help to solve and the opportunities for improvement. Heathrow's letter of 14 January 2022 to the CNG states 'There would be a separate process required if Heathrow were to introduce mixed mode or to increase capacity above 480,000 flights (ATMs) per year.' Can Heathrow therefore share information (based on the no expansion scenario) on the following specific and wider issues, for example:

- (i) What are the projections of lost time and cost due to lack of punctuality and resilience?
- (ii) To what extent do existing flight paths deviate from operationally efficient paths from start to finish?
- (iii) What specific conflicts and constraints are there with flights from other airports, General Aviation and new entrants such as drones and air taxis?
- (iv) What are the issues with Air Traffic Control and how can technology help?
- (v) What are the opportunities for noise, air pollution and CO2 emission reductions that could be delivered by airspace change at Heathrow?

Practically, it would assist to have these issues expressed in the context of a Base Year (say 2019) and a 'Do-Nothing' (Baseline) scenario.

[HEATHROW: Heathrow is introducing airspace modernisation in line with Government Policy and the primary objective of this ACP is to meet our commitments to the Airspace Modernisation Strategy (AMS). We recognise the benefits set out in the AMS and we are required to undertake this ACP as part of our commitment to the AMS. We have not therefore undertaken our own assessment of specific benefits to Heathrow at this stage. We will assess airspace design options against a 2019 baseline at the Initial Options Appraisal. Where possible we will share information on how the potential design options compare to today's operation from an operational perspective as well as from community and environmental perspectives.]

11. We assume that Heathrow will return to pre-covid numbers of flights which were near to the planning limit of 480,000 ATMs a year. The scheduling of these flights varies according to the summer and winter seasons and time of day. In responding to point (i) above on resilience, it would help to understand what airspace headroom capacity there is above the scheduled usage (a) for resilience and (b) for additional flights. Also, it would be helpful to see the projections for passenger numbers in the light of trends for larger aircraft and higher load factors.

[HEATHROW: Future traffic forecasts will be shared at public consultation at Stage 3 and will inform the assessment of impacts of the proposed airspace change. Forecasts will take account of anticipated technological change as well as trends in aircraft types and passenger load factors.]

12. Can Heathrow assist in seeking an update to NATS' (2017) estimated UK Need in its feasibility study supporting the Airspace Modernisation Strategy. We are concerned that based on an average 2.0% pa demand growth by UK aviation this is now significantly overstated compared to the Climate Change Committee's 6th Carbon Budget, which in turn leads to a significantly overstated 'Do-Nothing' scenario.

[HEATHROW: We are investigating this and will come back to you in due course. Upfront Airspace Modernisation Project Scoping.]

13. We also believe a normal requirement of any option appraisal process, would be the establishment at the outset of targets and a framework for evaluating the potential costs and benefits, measured against the 'Do-Nothing' scenario (such a scoping study should reflect the update referred to in para 12 above). We realise final conclusions and decisions can only be arrived at the end of the design process when flight paths have been finalised, but this does not obviate the need for an upfront project scoping study. If this is to be left to the 'Initial Appraisal' at the end of Stage 2 or the 'Full Appraisal' in Stage 3, it will be far too late for meaningful community engagement.

[HEATHROW: Heathrow is introducing airspace modernisation in line with Government Policy and the primary objective of this ACP is to meet our commitments to the Airspace Modernisation Strategy (AMS). We recognise the benefits set out in the AMS but, given we are required to undertake this ACP, we have not undertaken our own assessment of specific costs or benefits to Heathrow. All options will be compared against a 2019 baseline at the Initial Options Appraisal stage. The public consultation at Stage 3 is intended to allow for meaningful community engagement on the proposed flight path options and the relative costs and benefits of them.]

14. We believe that as part of an outline business case it is essential to understand the range of cost-benefit estimates that Heathrow expect as outcomes of modernisation, as this will be fundamental to the identification and assessment of options. The sharing of extant or newly prepared cost-benefit estimates will be invaluable to all stakeholders so that they can understand better how these expectations inform the modelling and other processes needed to develop modernisation proposals.

15. As part of the Scoping Study can Heathrow also assist in reconciling and co-ordinating ACOG's Airspace Modernisation Masterplan and Heathrow's Business Plan that include

Heathrow expansion with the Heathrow's Airspace Change Proposal that excludes expansion? The process of integration with the ACOG Masterplan is not clear at the moment and we would welcome an early discussion on the subject. If Heathrow's proposal includes adding airspace capacity for resilience or potentially additional flights (notwithstanding the proposal is based on usage by 480,000 ATMs a year) it would help for these capacity changes to be identified.

[HEATHROW: This airspace modernisation ACP will propose a new airspace design for the current cap of 480,000 ATMs. Any plans to increase the ATM cap at Heathrow would require planning permission via a separate process. A lot has happened since we were last working on Expansion, however, we still have the policy framework of the ANPS in place. It's been a challenging couple of years for the business with the pandemic, so we are currently going through a process to make sure that we've got everything lined up before we move forward again. The pandemic has demonstrated that there is significant pent-up demand from passengers and new airlines to operate out of Heathrow. Meeting that demand at the UK's hub airport will be essential to a country that has global and levelling up ambitions. This must be achieved within strict environmental limits and the industry is committed to decarbonisation. We appreciate uncertainty about Heathrow expansion is difficult for the communities around the airport and we will keep local communities informed and engaged as and when any plans change.]

16. Also, we are not clear whether it is Heathrow's intention to follow the recommendation in the policies for the 6th Carbon Budget that 'there should be no net expansion of UK airport capacity unless the sector is assessed as being on track to sufficiently outperform a net emissions trajectory that is compatible with achieving Net Zero'. Can Heathrow explain their position on this, please.

Early Collection of Robust Evidence.

17. In a project of this scale and impact it is fundamental that the appraisal and project decisions are supported by a robust evidence base. We believe an early audit of the evidence needed to make rational design decisions is essential and that steps are then taken to address knowledge gaps in a timely manner so as to properly feed into the relevant decisions. In particular, the following will be essential to inform accurate flight path appraisals:

- (i) A new social survey of day and night noise, to remedy the acknowledged deficiencies of the previous SoNA survey.
- (ii) A decision on the application of WHO Guidance values on noise and/or the rationale behind the choice of other metrics or thresholds.
- (iii) Impact evidence on PBN use (in the light of Heathrow's 2014 PBN trials, London City Airport and US experience) and related solutions for the inherent concentration of noise impact.
- (iv) Evidence on the mitigation of concentrated noise by use of multiple flight paths and/or respite.
- (v) Up-to-date air pollution evidence (NOX and particulates) of the impact of the proposed changes, as increasingly the harm on peoples' health and life expectancy is shown to be more serious than previously thought.
- (vi) Current population density and projected growth across the Heathrow Study Area.
- (vii) Location of noise sensitive hospitals, schools and parks.
- (viii) Assumptions regarding potential aviation fleet change (and the economic,

operational and environmental consequences) and its timing.
(ix) Evidence on the reduction of CO2 and timely pathway to Net Zero.

[HEATHROW: Where possible we will consider each of the matters raised here and will undertake sensitivity tests where appropriate. We recognise community groups have some concerns regarding SoNA and comparisons with WHO. However, these are issues for Government and whilst these remain Government Policy, Heathrow needs to take account of them in this ACP]

Uncertainty and Risk.

18. We would like to understand how uncertainty and risk and sensitivity analysis will be addressed and factored into the project appraisal and decisions, and what risk assessment, management and mitigation steps Heathrow might take. We note that in the US the AM 'NextGen' project has failed to deliver the projected benefits as well as causing very adverse environmental impacts on some communities and it will be important to understand how these outcomes will be avoided in the case of Heathrow.

[HEATHROW: As part of the CAA's airspace change process the CAA will conduct a post-implementation review (PIR), usually 12 months after implementation. The purpose of the review is to evaluate whether the anticipated impacts and benefits in the original proposal and published decision are as expected. Where there are differences, the review would identify the reasons for these and any steps required to be taken. The PIR is intended to give confidence to local communities that the airspace change will not deliver unanticipated impacts.]

Design Tools.

19. Heathrow will need to employ design tools in its project decisions and appraisal, such as the ANCON, AEDT and INM noise models and the government's TAG transport model (presumably updated to reflect the latest evidence). We would welcome early engagement with Heathrow on the use of these tools and models and the decision criteria, as well as the use of Environment and Economic Impact Assessments. We would like to understand what factors can be controlled by Heathrow and those that cannot, and which ones can be quantified and monetised and those where decisions will need to be based on qualitative assessment. We suggest that the Eurocontrol Standard Inputs for Economic Analyses, Edition 9.0, December 2020 (and updates and the Aviation Intelligence portal) could be a useful data sources for modelling.

[HEATHROW: We recognise that some of our community stakeholders are highly engaged and technically-minded and we are keen to work collaboratively with you. Our recent Methods & Metrics workshop was set up to initiate constructive engagement on the approach we will take to Stage 2 of the ACP and further technical workshops will be held if appropriate. Our intention at Stage 2 is to use a model developed for AEDT. This model will be the subject of a validation exercise in line with CAA CAP2091 guidance which sets out the parameters and describes the various inputs and their origin. In addition to the validation exercise, we will undertake comparative work with the ANCON model. This work will be reported at the end of Stage 2 to establish relative uncertainty in the modelling at this stage. The outputs from the modelling will be fed into the Government's TAG models.]

Optimisation Decision Process.

20. Generating options. We would like to continue the process started with the 5 July workshop of understanding how flight paths will be modelled in terms of lateral, vertical and time descriptors (4D) and how they will be operated in future in terms of frequency of flights, aircraft types and passenger loads and passenger kms including periods of respite. We seek to understand the efficiency rating and the noise, air pollution and CO2 emissions and the environmental impact of each flight path option as well for the system as a whole.

[HEATHROW: Where available, this information will be shared at either Stage 2 or at Stage 3 public consultation, in accordance with the CAP1616 process. We will share more detailed technical information, and seek feedback on it, at a future Methods & Metrics session if appropriate.]

21. Short-listing options. We would like to understand the process of elimination of flight paths in short listing and the choice of a final set of flight paths and how the options will be assessed against the Design Principles and Policies. It will be important to show how ANG 17 has been applied in relation to noise, altitude-based priorities, CO2, and air pollution and to other factors while ensuring safety. It will be important to extend the population numbers affected to the health impacts and to assess the impact of PBN and concentration versus dispersion.

[HEATHROW: This information will be presented when we engage with you on the Initial Options Appraisal during Stage 2 engagement sessions.]

22. Fairness. We would anticipate the option design process to be one of re-allocating legacy flight paths to improve efficiency and environmental impact. Fairness will be an important consideration and we hope the impact of change (recognised by ICAO) can be addressed.

[HEATHROW: "Fairness" is subjective and previous engagement on airspace topics has clearly demonstrated that one person's idea of a "fair" airspace design can be very different to another person's view. We are not aware of an ICAO position on "impact of change" so please could you share any source with us.]

23. On-going proposals by communities and others. Over time a number of proposals have been made to reduce noise and air pollution by the CNGs, Heathrow and others - for example: take-off procedures, reducing night flights and solutions for particular noise hot spots. We would like to see how these improvements and ICAO's Balanced Approach have been incorporated in the Airspace Change Proposal and the Stage 2 Plan.

[HEATHROW: ICAO's balanced approach is considered in the development of our Noise Action Plan, which is reviewed every 5 years. Our ACP will need to deliver outcomes that align with our Noise Action Plan.]

ENGAGEMENT

24 To help ensure the engagement process for Stage 2 is robust we would welcome assurances from Heathrow regarding the following:

- (i) Timely Information. Heathrow should circulate reports an appropriate and reasonable

period ahead of meetings to discuss the documents and well ahead of deadlines for community responses.

(ii) Hierarchy of decisions. As part of a grid for the Stage 2 Plan we wish to understand the hierarchy of decisions which influence route options and what criteria and evidence underpins them.

(iii) Stakeholder Input. We also wish to understand how stakeholder input will be used and what genuine influence it may have in the formation of the new airspace design. We seek to avoid pre-determined decisions.

(iv) Consultations. When Heathrow gathers evidence from consultations and focus groups we would like to be advised how these groups have been chosen, what briefing material has been provided and have access to the response data, where necessary in redacted or statistical form. Differences in interpretation may arise but it is important for Heathrow, ourselves and others to understand where we differ.

(v) Views of other Stakeholders. Clearly, there are other stakeholders and it is appreciated they may have different views to ourselves; it will be important to us to understand these and how they have influenced the design outcomes.

(vi) Monitoring the Plan. It will be important for communities to engage with Heathrow as the Stage 2 Plan progresses and for there to be the opportunity to identify gaps in the process and engagement and the remedial action needed to ensure the process and engagement are working to Plan.

[HEATHROW: Our plans for engagement have been developed to ensure we share information with, and collect feedback from, stakeholders at key points throughout the airspace change process. Our engagement plans go beyond the requirements of the CAPI616 process to include opportunities for more collaborative technical discussions with our most highly engaged community representatives, such as at the recent Methods & Metrics workshop.]

NEXT STEPS

25. This letter stems from potentially being impacted and wishing to understand and participate as fully as we can in the process by which flight path options will be designed and assessed. We see this letter as a starting point for positive engagement with Heathrow and would welcome your consideration of the issues raised on preparation and implementation of a Plan for Stage 2 and the Engagement Process. It would be appreciated if the letter could be circulated to the appropriate colleagues at Heathrow.

Yours Sincerely,

Peter Willan, BSc Eng(Hons), MBA, ARSM, FCMA, FEI, HonRCM

Chair, Richmond Heathrow Campaign: www.richmondheathrowcampaign.org

Richmond Heathrow Campaign represents three amenity groups in the London Borough of Richmond upon Thames: The Richmond Society, The Friends of Richmond Green, and the Kew Society, which together have over 2000 members.