

**HEATHROW NIGHT FLIGHT RESTRICTIONS
DfT CONSULTATION
RESPONSE FROM RICHMOND HEATHROW CAMPAIGN
3 SEPTEMBER 2021**

INTRODUCTION

This is a written response of the Richmond Heathrow Campaign (RHC) to the DfT's consultation titled '*Night Flight Restrictions, 2 December 2020*'.

The two-stage consultation process seeks views on the regime at the designated airports beyond 2022. We focus on Heathrow as this is our principle concern.

Stage 1 (Parts 1 and 2)

Part 1. RHC responded to Part 1 on 3 March 2021. The DfT proposed maintaining the existing night flight restrictions from 2022 to 2024 but to ban QC4 rated aircraft movements during the night quota period (23:30 to 06:00) (DfT Questions 7 to 13). Our 3 March responses to Questions 7 to 13 are repeated in the Annex attached here. While we seek to avoid duplication, Parts 1 and 2 overlap in many respects and it is important to have the full picture in one place. In many respects our Part 1 responses provide our views on night flights in the longer term.

The DfT published its decision on Part 1 in July 2021, which in summary is as follows:

- 'The night noise objective and existing restrictions will be rolled over for a period of three years rather than two as originally proposed in our consultation.'
- 'The government will proceed with the implementation of a ban on QC4 rated aircraft movements, at the designated airports, during the night quota period.'

RHC is very disappointed the DfT imposed a three-year rollover of current night flight restrictions at the three designated London airports while consulting on a two-year rollover. Also, the DfT failed to provide evidence supporting the economic benefits and costs of night flights and the impact of night flights on public health, raised by RHC and others in their responses as being of considerable concern.

Part 2. This is the subject of this 3 September response. The DfT seek Early views and evidence on policy options for the government's future night flight policy at the designated airports beyond 2024 (now 2025), and nationally (DfT Questions 14 to 78). Because of CV19, the DfT extended the deadline for the Part 2 Early view responses from May to 3 September 2021.

Stage 2. The DfT says 'We now aim to publish a further night flight restrictions consultation during 2023, and it is at this stage that we will set out firm proposals for longer-term policy reform.'

Respondent details are provide in response to DfT Questions 1 to 6 followed by responses to DfT Questions 14 to 76. RHC Recommendations are summarised at the end of this response.

RHC 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. Members of our amenity groups are adversely affected by noise from Heathrow Airport's flight paths, poor air quality and road and rail congestion in west London. Night flights have a substantial harmful impact. We acknowledge Heathrow's contribution to the UK economy and seek constructive engagement in pursuit of a better Heathrow. We are an active participant in the Heathrow Community Noise Forum.

Our premise is that it would be preferable to aim for a better Heathrow rather than bigger Heathrow and to capitalise on the world beating advantage of London's five airports, in particular by improving surface accessibility to all five airports, which would be a major benefit to users. Our approach continues supporting the case for no new runways in the UK and sharing growth across the UK; we believe this is well supported by the evidence produced by the Airports Commission and the DfT in relation to the Airports National Policy Statement and increasingly by evidence and the imperative need for aviation action on climate change.

Over recent years we have undertaken extensive research on Heathrow and submitted a large number of papers to the Airports Commission, the DfT, CAA and others - all of which can be found at www.richmondheathrowcampaign.org We responded in depth on night flights in February 2017 to the previous DfT Night Flight consultation and in September 2019 to Heathrow's Master Plan consultation. Both responses are on the RHC website.

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RESPONDENT DETAILS

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3. Responding as a campaign group - The Richmond Heathrow Campaign
4. Number of people in organisation: approx. 2,000
5. Region of interest: South east
6. Local Airport: Heathrow but 13 other airports share Heathrow's airspace.

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Annex attached with this 3 Sept 2021 response: RHC Response 3 March 2021

SECTION 1 - NIGHT FLIGHT DISPENSATIONS

Night Flight Dispensation Review

Question 14. What are your views on the:

- findings of the night flight dispensation review?
- proposals for the night flight dispensation review?

Answer

RHC Comment:

RHC analysis finds there to an average of 1.8 dispensations a night in 2018 (1.3 dispensations 23:30-04:30 and 0.5 dispensations 04:30-06:00). These are too many and the Consultation evidence demonstrates that they can and should be reduced. We seek to limit dispensation further than the DfT propose and to include them in the Noise Quota count. Clearly exceptions may be made on grounds of safety, which is paramount.

The definitions and criteria for dispensations need clarification and actual dispensations need to better adhere to the criteria. The industry naturally seeks to add capacity or avoid operational disruption whereas communities suffer the cost in terms of impact of noise on sleep and health.

Heathrow decides the dispensations and there needs to be better over-sight by the CAA/DfT and transparency and accountability, taking account of both benefits and costs to the several parties involved. Communities need to have the opportunity to voice their concerns on a regular basis. Dispensations should only be issued in exceptional circumstances.

The government does not seem to share our concerns to the same level but hopefully this consultation response will encourage the government to respond with early remedial action.

Revising the Night Flight Dispensation Guidance

Weather-related Delays

Question 15. Should disruption due to local weather qualify for dispensations?

Answer - No

RHC Comment:

Arrivals may not be capable of being stopped at originating airport so would end up as late runners but the cost in terms of fees, etc should be born by the airline and not the community. Departure dispensation on grounds of weather should not be allowed, although this probably will cost the airlines. The cost of dispensation flights in terms of lost or interrupted sleep and negative health impacts should not be born by the community. Dispensation flights should be included in the QC to provide an economic incentive to manage operations around weather conditions. Resilience should be and industry cost. Safety of course remains paramount.

Question 16. Should disruption due to en-route weather qualify for dispensations?

Answer - No

RHC Comment: As for Q15

Question 17. Should disruption due to foreign airport weather qualify for dispensations?

Answer - No

RHC Comment: See Q15

Industrial Action

Question 18. Should disruption caused by ATC industrial action qualify for dispensations?

Answer - No

RHC Comment: Industrial action can usually be anticipated or avoided and communities should not be expected to pay a price in terms of lost and interrupted sleep and negative health impact.

Question 19. Should disruption caused by industrial action by airport staff qualify for dispensations?

Answer - No

RHC Comment: See Q18

Question 20. Should disruption caused by industrial action by airline staff qualify for dispensations?

Answer - No

RHC Comment: See Q18

Network Capacity Delays

Question 21. Should network capacity delays qualify for dispensations?

Answer - No

RHC Comment: Airspace design and use is subject to CAP 1616 process and if delays are caused by insufficient capacity then that is the process needed - not dispensations. Increasing capacity to a level that avoids delays may not be justified, taking account of community noise impacts, et al, in which case use should be restricted to provide headroom for air traffic congestion and disruption. Resilience should be an industry cost.

Criminal or Terrorist Activity

Question 22. Should delays caused by serious criminal or terrorist activity that affect multiple flights qualify for dispensations?

Answer - No

RHC Comment: The State should be responsible and has the powers to grant dispensation so a dispensation rule applied by the airport for the rare occasions should not be provided.

Cumulative Delays

Question 23. Should cumulative delays qualify for dispensations?

Answer - No

RHC Comment: Airports and airlines should plan effectively and take responsibility for cumulative delays and airports should not grant dispensations where the outturns do not meet plan, otherwise the costs fall on the communities impacted by noise. Cumulative delays should

be resolved in the daytime period not at night.

Emergencies

Question 24. Should dispensations be permitted for flights delayed to the NQP due to a medical emergency that has passed?

Answer - No

RHC Comment: The effects of unforeseen emergencies should be prepared for and where this is not the case the communities should not be expected to bear the cost. The QC system should accommodate the relatively few incidents.

Question 25. Should dispensations be permitted for flights delayed to the NQP due to a police emergency (for example a disruptive passenger) that has passed?

Answer - No

RHC Comment: See Q24

Question 26. Should dispensations be permitted for the repositioning of emergency service (including medical transplant) aircraft?

Answer - Yes

RHC Comment: See Q24

Reducing Carbon Emissions

Question 27. Should dispensations on the basis of reducing carbon emissions be permitted?

Answer - No

RHC Comment: The reduction in carbon emissions is likely to be small per incident and the focus on carbon mitigation should be based on a more comprehensive plan. The marginal benefit per incident is almost certainly outweighed by the marginal cost to communities in terms of lost and interrupted sleep and negative impact on health.

Pre-emptive Dispensations

Question 28. Should pre-emptive dispensations be permitted?

Answer - No

RHC Comment: Forward planning of dispensations is not justified. Plans to avoid them should be mandatory.

Other Airport Operator Dispensations

Question 29. Should dispensations be granted for information technology failures?

Answer - No

RHC Comment: It resilience should be an industry cost.

Question 30. Supply any further views or evidence on the guidance allowing airport operators to grant dispensations you may have?

Answer

RHC Comment:

If the restrictions we recommend here were to be introduced then we would accept Heathrow's authority to give dispensations. Otherwise, authorisation from the CAA or DfT should be required. But we iterate that one or two dispensations a night is too many in the context of the loss of peoples' sleep and the negative health and productivity impact. A targeted maximum per month or six months needs to be established with greater restrictions imposed should targets not be met.

Government Dispensations

Question 31. What are your views on government dispensations overall (provide evidence to support your view)?

Answer

RHC Comment:

Dispensation should only be used for unavoidable humanitarian or welfare circumstances or where there are potentially significant externalities such as terrorist activity. A limited number of Heads of State and VIP dispensations are acceptable but dispensations should not be for the convenience of celebrities. Regular checks and oversight of the number and reasons for dispensations should be required. RHC experience as evidence.

SECTION 2 - STRUCTURE OF THE NIGHT FLIGHT RESTRICTIONS AT DESIGNATED AIRPORTS BEYOND 2024 (2025)

Options for the Regime beyond 2024 (2025)

Question 32. What length should the night flight regime beyond 2024 be?

Answer

RHC Comment:

5 years. But see Annex Q7 response where we seek a Night flight ban and we would wish to see this fully implemented well ahead of 2029.

Question 33. How do you think the length of regime will affect you (provide evidence to support your view)?

Answer

RHC Comment: See RHC responses to Q7 Q10 and Q11 in the Annex attached.

QC System

Question 34. Do you think that QC is the best system for limiting noise at the designated airports?

Answer- No

RHC Comment:

The QC ceiling has always been above the actual QC and therefore adds little if any downward pressure on noise. But this more a matter of application than the system itself. As far as noise is concerned there are fundamental weaknesses in the QC system. The number of flights and their pattern are the two key issues. The first arrival wakes people up. But flights in the morning shoulder period can cause harm to health by shortening the required minimum 8 hours sleep. So average QC controls lack the precision. In addition, control of aviation noise and its harm on peoples' sleep, health and productivity is not backed up by statute. Fleet replacement is driven

by investment and this is not driven by Heathrow's quota count system. A QC system can be effective for carbon pollution where the cumulative impact on atmospheric concentration and statutory carbon budgets apply.

Question 35. What do you think are the:

- **advantages of changing to a new system?**
- **disadvantages of changing to a new system?**

Advantages:

Answer- Reduced harm from noise.

RHC Comment:

A Full Ban and in the interim a deferral of the earliest arrivals is the only solution to meeting health objectives. The re-timing of flights to the day has no net economic impact and is feasible. See Annex Q7.

Disadvantages:

Answer-None

RHC Comment: None

Question 36. Do you have evidence of other noise management regimes being used elsewhere and how they compare with the current system?

Answer -Yes

RHC Comment:

Heathrow has the worst night time noise impact of any European airport. Other airports have night curfews: Frankfurt, Sydney.

New QC Category

Question 37. Should we introduce an additional QC category for quieter aircraft in the longer-term?

Answer -Yes

RHC Comment: In the absence of a ban, an additional QC category is probably of some benefit but see the limitations in our response to Q34. It is important that a lower QC rating does not lead to more flights.

Re-introduce an exempt Category

Question 38. Should the government reintroduce an exempt category?

Answer -No

RHC Comment:

Exempt aircraft still make noise and cumulatively the exempt category could come to represent a significant contributor to the noise climate. All aircraft movements need to be included in the QC and number controls. In theory we could be heading towards zero noise propulsion such as electric motors and hydrogen fuel cells. However, airframe noise can still represent over 50% of the noise but there again blended body and other designs could reduce this. There will come a time - perhaps in 5 years when much more attention needs to be paid to zero carbon aircraft and to ensure noise and air pollution are not forgotten.

Question 39. Please provide evidence to support your position.

Answer

RHC Comment: Experience of RHC.

Re-baseline the Noise Quota System

Question 40. Do you think we should re-baseline the night quota system in the longer-term longer-term? Provide evidence to support your view.

Answer -Yes

RHC Comment: None

This would make it easier to manage but the arithmetic in combining aircraft noise counts would have to be handled with care. QC values below 1 should be avoided.

Question 41. What factors should we consider when anticipating how to best future proof a re-base lined QC system?

Answer

RHC Comment:

Ensure departure and arrival differences are taken into account and somehow incorporate a measure for frequency of flights.

Question 42. What costs, if any, would you anticipate in re-base lining the QC system?

Answer - None

RHC Comment: None

Night Quota Period

Question 43. Would you be impacted if the NQP was extended to 23:00 to 07:00?

Answer -Yes

RHC Comment:

We strongly oppose a single NQP for the whole night period 23:00 to 07:00. Extension of controls into the two shoulder periods (i.e. total 8 hours) would be welcome but as three separate controls plus an overall night period control. This approach is to avoid noise being shifted from one period to another without proper control that recognises the harm in each period of the night.

Question 44. Provide evidence to support your view.

Answer

RHC Comment: Experience of RHC members.

Question 45. Do you think night flights in certain hours of the NQP have a greater impact on local communities than other times of the NQP ?

Answer -Yes

RHC Comment:

People need uninterrupted sleep. Other things being equal flights spread through out the night are probably the worst outcome but expert input should be sought on the pattern of flights that does the least harm.

Question 46. Provide evidence to support your view.

Answer

RHC Comment: Experience of RHC members

Question 47. Would a mechanism that dis-incentivises aircraft movements in periods of the night that are more sensitive for communities impact you (provide evidence to support your view)?

Answer -Yes

RHC Comment:

It seems logical to avoid more sensitive periods in the night in so far as they exist. Expert opinion is needed. But one person's gain can be another's loss in a densely London space. RHC experience.

Question 48. Provide evidence to support your position

Answer

RHC Comment: RHC experience.

Banning the Noisiest Aircraft

Question 49. What would be the impact on you if QC4 rated aircraft movements were banned between 23:00 and 07:00 after October 2024?

Answer- Less harm

RHC Comment: see Q9 and Q11 but very nearly all should have been retired from the Heathrow fleet so little impact but precautionary. In airports other than Heathrow there may be a problem with older aircraft being deployed as freighters.

Question 50. What would be the impact on you if a scheduling ban was placed on QC2 rated aircraft movements between 23:30 and 06:00 after October 2024?

Answer -Less harm

RHC Comment: see Q9 and Q11.

We recommend QC2 should be banned (both scheduled and operationally) from 2022.

Question 51. What would be the impact on you or your business if a scheduling ban was placed on QC2 rated aircraft movements between 23:00 and 07:00 after October 2024

Answer - Less harm

RHC Comment: see Q9 and Q11.

We recommend QC2 should be banned (both scheduled and operationally) from 2022.

Question 52. If bans are introduced should the implementation be staged?

Answer -Yes

RHC Comment:

From an environmental point of view the answer is no but for the airlines to make an orderly exit in re-timing their flights to the day a staged ban over say 3 years might be appropriate.

Question 53. Please provide evidence to support your position.

Answer

RHC Comment: See Q51 and Q7

Future movement and noise quotas

Question 54. In a future regime how should we manage the number of aircraft movements (detailing the airport or airports relevant to your view)?

Answer

RHC Comment:

Heathrow: wind down the number over 3 years until a total ban. Offer airlines slot priority in the day time spare capacity to re-time their night flights.

Question 55. In a future regime how should we manage an airports' noise allowances (detailing the airport or airports relevant to your view)?

Answer

RHC Comment:

Heathrow: As we say the QC system is rather ineffective in reducing noise but nevertheless an annual reduction in allowance should be sought.

Managing Night Noise through QC Limits Only

Question 56. Should we remove the movement limit and manage night flights through a QC limit only?

Answer -No

RHC Comment:

The QC system is of minimal effectiveness. Also, the number of flights is a major determinant in the harm caused and must be controlled independently and for the QC Period and both shoulder periods but separately.

Question 57. Provide evidence to support your view.

Answer -Yes

RHC Comment: See Q55

Ring-fencing

Question 58. Should we introduce a ring-fencing mechanism to ensure night slots are available for:

- passengers
- dedicated freight
- business general

Answer -No

RHC Comment: None

Question 59. Provide evidence to support your view.

Answer

RHC Comment: None

Unused allocation during seasons

Question 60. Should an airline be able to use unused allowances later in the season?

Answer -No

RHC Comment: Especially no for dispensations.

Question 61. If the government decided that unused allowances should be returned to the airport's pool, what would be the impacts on:

- communities?
- airports?
- airport users?
- airlines?
- business in and around airports?

Answer - Communities

RHC Comment:

Harm from noise is too high so any release should benefit communities

Carry-over limits between seasons

Question 62. Do you agree or disagree that the current carry-over process benefits you?

Answer -No

RHC Comment:

Harm from noise is too high and restricted. Carry-over should benefit communities.

Question 63. Provide evidence to support your view.

Answer

RHC Comment: See Q61

Question 64. What changes, if any, would you like to see to the carry-over process and how would this impact you?

Answer Reduced

RHC Comment:

Benefit communities.

SECTION 3 - NATIONAL NIGHT FLIGHT POLICY

Health Impacts and Economic Value of Night Flights

Question 65. How fair a balance between health and economic objectives do you think our current night flight approach is?

Answer Unfair

RHC Comment:

The polluter should pay. Communities should not have to experience noise so aircraft can fly to generate income to invest in reducing noise. There is inadequate account taken of the health impact on communities and particularly children and the vulnerable. The economic objectives are overstated, especially if the increment between night flights as currently structured are re-

timed to later in the day and all such flights can be accommodated between 7:00am and 9:00pm in the case of Heathrow. See Annex Q7 et al.

Question 66. What are your views on the health impacts of aviation noise at night, including potential impacts on different groups in society (provide evidence to support your view)?

Answer

RHC Comment:

Children, elderly and vulnerable are at risk of loss of sleep. People's productivity reduces with loss of sleep. There is ever increasing scientific evidence of significant harm to sleep and health from night flights. The WHO 2018 report provides the evidence. See Annex Q7 et al

Question 67. What are your views on the economic value of night flights, including the potential value on different businesses and aviation sectors (provide evidence to support your view)?

Answer -Minimal economic impact of re-timing nights flights to the day

RHC Comment: See Annex Q7 where the answer is expanded.

Question 68. What are your views on changes to aircraft noise at night as result of the COVID-19 pandemic(provide evidence to support your view)?

Answer

RHC Comment:

The reduction in aviation demand will take at least to 2026 to recover to 2019 levels according Heathrow's revised Interim Plan December 2020. Action should be taken to re-time night flights to the day. People have become used to the lower levels of noise and will be sensitive not just to the future levels but also to the change in levels of noise.

Future Technology

Question 69. In your opinion what are the advantages or disadvantages that the emergence of new technology will have in relation to night noise from aircraft within the next 10 years (provide evidence to support your view)?

Answer -not confident of reduced noise at source for several decades.

RHC Comment:

The population impacted by Lnight 6.5 h was 207,200 in 2006, 199,300 in 2011 and 221,200 in 2016 (HALNAP 2019). The increase over 10 years does not instill confidence for the future. HAL forecasts in its August 2019 Consultation on Airport Expansion estimated 207,500 people affected using the same metric in 2023, which further adds to our concern.

These figures contradict the more optimistic figures shown in the consultation. But even these include increases. The LAeq 8 hour Night metric shows an increase in population exposed between 2011 and 2018-19 in the 51 dBA contour (170.1k to 182.2k people), notwithstanding a reduction in the 48 dBA contour (388.8k to 365.5k people).

Longer term: new types of aircraft designed to reduce CO2 and NOX may compromise with more noise as a result of new airframe designs and propulsion.

We could be heading towards zero noise propulsion such as electric motors and hydrogen fuel cells. However, airframe noise can still represent over 50% of the noise but there again blended body and other designs could reduce this. There will come a time - perhaps in 5 years when much more attention needs to be paid to zero carbon aircraft and to ensure noise and air pollution are not forgotten.

The development of air taxis and use of drone for deliveries is of considerable concern in terms of noise impact let alone safety..

Proposal to include a Night Noise Reference in our Noise Objective

Question 70. Should we include a reference to night noise when we publish a revised aviation noise objective?

Answer -Yes

RHC Comment:

Night noise has perhaps the most harmful impact of all aviation noise and should be controlled against a night noise objective. See Annex Q7 and Q8.

Question 71. What factors relating to night noise should we include if we do introduce a noise reference in our revised aviation noise objective?

Answer

RHC Comment:

Adverse harm on health and dispersion instead of concentration. See Annex Q7 and Q8.

SECTION 4 - AIRPORT DESIGNATION

Question 72. Should the government set criteria for airport designation?

Answer -Yes

RHC Comment: We strongly support designation of airports for managing carbon emissions and believe that noise and air pollution should be included and incorporated in Action Plans.

Question 73. What do you think are the:

- advantages to the government setting criteria for airport designation?
- disadvantages to the government setting criteria for airport designation?

Answer

RHC Comment: many of the issues are matters concerning airlines, airports, aircraft manufacturers and fuel and other suppliers as well as passengers and freight owners and communities. Airports are best suited to co-ordinate the responses to environmental issues. But they must have the appropriate powers and incentives and accountability with oversight from the Government setting targets and involving laws and mandates where necessary.

Question 74. What factors, if any, do you think we should consider when setting criteria for designation?

Answer - see Q73

RHC Comment: See Q73

Question 75. How should any criteria for designation be agreed?

Answer

RHC Comment: see Q73

Question 76. What impact, if any, do you think the designation of an airport have on:

- communities?
- airports?
- airport users?
- airlines?
- business in and around airports?

Answer Not relevant to Heathrow which is already designated.

Question 77. What impact, if any, do you think the de-designation of an already designated airport (Heathrow, Gatwick, Stansted) will have on:

- communities?
- airports?
- airport users?
- airlines?
- business in and around airports?

Answer. We are not in favour of de-designation of Heathrow - see Q73.

Question 78. Any other comments?

Answer

1. RHC Comment: We urge the DfT to recognise the limitations of the Sona 14 Night Flight Report published in July 2021. It is clear the Government has no intention of adopting WHO Guidelines on aviation noise. Furthermore, it commits Government to its existing Night Noise Objectives of 48dBLeq 6.5hr which has no rational basis.
2. The aviation industry sponsored York Aviation to produce a report earlier this year on *'The Economic Impact of Night Flying in the UK'*, which argues against a night flight ban at Heathrow. We are not proposing to use this consultation response to challenge the Report on the many grounds it deserves. The New Economic Foundation NEF has just published a report *'The Economic Impact of Restrictions on Night Flying: A review and new evidence'* RHC supports the NEF report and its substantive challenges to the York Aviation Report. As we have explained in the Annex to this response we do not think there is an economic case that prevents an 8 hour ban being introduced for night flights at Heathrow. Rather, there is every reason to ban night flights on account of the harm to people's sleep and health.
3. Finally, the Annex to this 3 September response contains many of the arguments and much of the evidence in support of RHC's responses to this Stage 1-Part 2 consultation. We encourage the DfT to include the Annex material in its assessment of Night Flights.

**HEATHROW NIGHT FLIGHT RESTRICTIONS, 2022-2024
DFT CONSULTATION QUESTIONS 7 to 13 STAGE 1-PART 1
RICHMOND HEATHROW CAMPAIGN RESPONSE 3 MARCH 2021**

This Annex is a copy of responses to Questions 7-13 (Stage 1 - Part 1) of the DfT 'Night Flight Restrictions, December 2020' Consultation submitted by Richmond Heathrow Campaign (RHC) on 3 March 2021. Questions 1-6 were respondent details and are not repeated here.

NOISE OBJECTIVE

Question 7. Do you agree with our October 2022 to 2024 night noise objective for the designated airports?

Answer - No

RHC Comment:

Out of Date Noise Objective

The consultation says: *'The Government's overall policy on aviation noise is to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise, as part of a policy of sharing benefits of noise reduction with industry.'*

This objective originated in the Governments's National Aviation Policy Framework 2013 (paragraph 17). But importantly it was modified in the Air Navigation Guidance 2017 (ANG17) in para 1.2 (a) to say *'limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise.'* Our underline. It is not just the number of people but the adverse impact and health consequences that are important.

Furthermore, the idea of sharing benefits of noise reduction with the industry is contrary to the principle of the 'polluter should pay'. There is no case for communities giving up any benefits from noise reduction in order to subsidise the industry's investment in less noisy aircraft or any other use. The Government should see to it that the industry alone pays for avoiding and mitigating the noise and other pollution, whether that be the airline and airport shareholders or the passengers and freight users.

RHC Recommendation (1): Update Noise Objective to that in the Air Navigation Guidance 2017

Absent Heathrow Local Community Noise Objective

The issue of dispersion versus concentration is important. Paragraph 1.3 of the ANG17 says that *'in order to deliver [Objective 1 involving significantly affected by adverse impact], decisions which affect how aircraft noise is best distributed should be informed by local circumstances and consideration of different options. Options, and the appraisal of the pros and cons, may include concentrating traffic on single routes, which normally reduce the number of people overflown, versus the use of multiple routes, which can potentially provide relief or respite from noise if routes can be sufficiently separated.'* So the ANG 17 makes provision for local airport noise objectives and RHC has repeatedly recommended a **Heathrow Community Noise Objective** that results in dispersion rather than concentration where there is an overall increase in noise energy at source such as with a 3rd runway, and where there is a reduction in overall noise at source such as from less noisy aircraft, the benefit should be applied to those already most affected and noise from existing flight paths should not be redistributed. There is no official noise objective for the sharing aircraft noise across the community, and so far Heathrow has not recognised or accepted RHC's repeated attempts to introduce one.

RHC Recommendation(2): Introduce a Heathrow Community Noise Objective for sharing of noise.

Reduction in Heathrow Night Flight Noise 2022-2024

Currently there is a substantial reduction in demand at Heathrow, and recovery from CV 19 is expected to take time. In 2020 there were 22.1 million Heathrow passengers compared to 80.9 million in 2019. Heathrow’s Revised Interim Business Plan, December 2020, estimates the following passenger numbers:

Table 1	Heathrow Passenger Traffic Scenarios (Million passengers)				
Year	2022	2023	2024	2025	2026
High	69.4	72.9	76.4	79.2	80.3
Mid	51.9	60.5	66.5	72	74.5
Low	31.7	43	54.7	59	62.1

Source: Heathrow Revised Interim Business Plan, December 2020

We do not know what impact there might be on night flight demand between 2022 and 2024 but RHC argues that the impact on sleep and health of a night flight compared to a day flight is high and that the recovery in flights should be taken-up firstly by daytime flights. From an economic point of view there is little or no economic cost of re-timing historic night flights into the day time spare capacity at Heathrow. In 2017 Heathrow estimated its total capacity as at least 93 million passengers. Compared to the demand in Table 1 there is substantial spare capacity, of which most can be attributed to the day time 07:00-23:00. At the very minimum, the objective should be for total night flights between 23:00 and 07:00 in each of the three years, 2022 to 2024, to be no more than in 2020.

RHC Recommendation (3): Restrict the number of Heathrow Night Flights, 23:00-07:00 to the numbers in 2020.

Heathrow Night Flight Ban 23:00-07:00

RHC goes further than limiting night flight numbers to 2020 levels. We strongly advocate an objective that introduces a night time ban of 8 hours between 23:00 and 07:00. On many occasions in the past we have provided evidence for the pros and cons of a total ban.

Table 2 illustrates the average number of flights per night in 2018 and was prepared by RHC but checked for accuracy by Heathrow. We recommend a staggered elimination, first in time-shifting the average 13.9 scheduled flights a night arriving in the Night Quota period 23:30-06:00 until after 07:00, and then elimination of the 45 or so scheduled flights a night between 06:00 and 07:00. The 8.9 unscheduled late runners after 23:00 and 11.2 unscheduled early arrivals before 07:00 should be banned. We accept there will always be unscheduled dispensations but these can and should be reduced in number. In 2018 there were an average 1.8 dispensations but in normal years this has been around one flight a night.

Table 2		Heathrow Night Flights 2018 - Average Flights per Night (Summer and Winter)					
		Table 2A		Table 2B			
	Total	Arrivals	Departures	Scheduled	Un- Scheduled	Total Quota	Dispensed
23:00-23:30	8.0	1.7	6.3	0.2	7.8		
23:30-04:30	2.4	0.8	1.6	0	1.1	1.1	1.3
04:30-06:00	14.7	14.7	0.0	13.9	0.3	14.1	0.5
06:00-07:00	55.7	23.2	32.5	44.8	10.9		
Nt Quota Period	17.1	15.5	1.6	13.9	1.3	15.2	1.8
Night Period	80.8	40.4	40.4	58.9	20.1		1.8

Notes to Table 2. Prepared by Richmond Heathrow Campaign, August 2019
Source: Table A HAL Reports Heathrow Night Flight Report 2018 Q4 21 February 2018. Table B Heathrow Daily Operational Data Report 2018. Note slight differences of Table A. Arrival and Departure proportions 23:00-23:30 and 06:00-07:00 estimated by Richmond Heathrow Campaign. Night Quota Period 23:30-06:00; Night Period 23:00-07:00

The Annex [Stage 1 Part 1] attached here details the originating airports for arrivals in the Noise Quota Period and stand arrival times at Heathrow for summer 2018 and winter 2018/2019.

There is a degree of confusion in times stated because of the difference between stand and runway time. On arrival, stand time is around 10 minutes after runway time. In the evening, a stand time is of benefit to communities because aircraft are overhead that much earlier but in the mornings the reverse is true. The opposite occurs with departures and the time between stand and runway can be much more than 10 minutes. Published times are stand times but we believe runway slot allocation by ACL is based on runway times. The difference can reduce night time respite by 20 or more minutes.

RHC recommendation (4): Arrival and Departure Times to be annotated with an “S” for stand time and “R” for runway time.

RHC Recommendation (5): Introduce a Heathrow Night Flight Ban, 23:00-07:00 for all scheduled and unscheduled flights except for dispensed flights with staggered introduction completed by October 2024.

RHC Recommendation (6): DfT/Heathrow to produce Economic and Environmental Assessments for Heathrow’s night flights so as to properly weigh up the balance of benefit and cost.

RHC argues that there is little or no loss of economic value to the UK in re-timing all Heathrow night flights between 23:00 and 07:00 to the day time. We also argue that there is substantial environmental harm to people’s sleep and health from Heathrow’s night flights. Our arguments on the Economics and Environment are summarised below.

Economics of a Heathrow Night Flight Ban

The Airports Commission said in its Final Report 2015 (see paragraph 14.29): ‘*A review of existing schedules at Heathrow suggests that there would be no insurmountable demand or supply-side barriers to providing alternative overnight services to arrive after 6:00am.*’

We add, based on pre-CV 19 Heathrow night flights:

1. What is so special about the 18 originating airports that they require night flight arrivals in the 90 minutes between 04:30 and 06:00 whereas 174 originating airports are without night flights?
2. Heathrow is served by more than 30 originating airports in the Far East. So why do only six need pre-06:00 access to Heathrow?
3. Why do not equally or more dense routes than those from the 18 originating airports require night time arrivals?
4. Of the 18 routes why do 7 not operate in the summer and 3 not in the winter seasons?
5. Are late departure curfews the reason for some of the early arrivals at Heathrow? Curfews on late night departures are surely no good reason for night time arrivals at Heathrow. Furthermore, curfews do not explain the night arrivals from at least the US airports and others, which depart in the local daytime.
6. There are no good reasons supporting Heathrow night flights in answer to the above questions.

7. The argument presented by Heathrow that night flights support essential international-to-international (I-I) transfers is a myth. There are just 300,000 I-I transfer passengers a year on thin long haul routes out of 23 million I-I transfers (CAA/DfT data for 2011 and 2016). Examination of the night flight routes suggests that none of the routes would be unviable without I-I transfers. A loss of around 500,000 I-I transfer passengers out of 1.84 million night flight passengers in our view would have no negative impact on the UK and would benefit local communities by a reduction in noise. N.B. I-I transfers are exempt from Air Passenger Duty.
8. Examination of Heathrow's hourly schedules for Arrivals and Departures in Winter and Summer shows that at least 90 flights can be handled an hour and these allow for unscheduled contingencies. Averaging 90 movements over 16 hours (07:00-23:00) and 365 days a year results in a theoretical scheduled capacity of 526,000 movements. Deducting the legal limit of 480,000 air transport movements and 6,000 non-ATMs a year leaves contingency capacity of 40,000 per year (110 flights a day) or 7.6% of the theoretical scheduled capacity.
9. In September 2016 Heathrow said it would like to unlock the 480,000 ATM legal limit and add 25,000 flights a year before a 3rd runway is opened. It said that *'Overall flight numbers will rise by 25,000 a year with four million more passengers. The airport says new technology will allow this without causing more delays for existing flights.'* We would strongly resist unlocking the planning limit of 480,000 ATMs a year but point out that Heathrow believes there is spare day-time capacity for at least 25,000 ATMs. This could be used for re-timed night flights.
10. This day time capacity could easily handle a re-scheduling of 5,840 Night Quota Period flights a year or total 21,500 scheduled flights a year in the Night Period 23:00-07:00. Moreover, most of the destinations in these periods are already served by flights in the day and have spare capacity to take some of the night flight passengers.
11. The argument that Night Flights are needed for just-in-time freight does not stack up since rescheduling the just-in-time process can be integrated with flights in the day time.

Environmental Harm from Night Flights

Noise objectives should include a commitment that operations at Heathrow Airport will move towards compliance with the World Health Organisation's limits on noise (individual noise level and average noise level) in each hour of the night period (23:00-07:00). Such a commitment is long overdue, bearing in mind that noise from air traffic at night is still a major disruption for many people living within audible distance of Heathrow's flight paths, despite night flying restrictions having been in operation at Heathrow for fifty years.

In 1980 the WHO recommended community noise guideline of 45 decibels (LAeq) in the night. Then in 1999 it recommended an additional guideline of 60 decibels (Lmax) in the night. The WHO also recommended that most people need 8 hours sleep.

In 2009 the WHO Regional Office for Europe published the Night Noise Guidelines for Europe, which took into account research since 1999 and recommended:

- 40 decibels (LAeq) as the long term target at night (i.e. instead of 45 decibels (LAeq) as recommended since 1980); and
- 55 decibels (LAeq) as an interim target at night where 40 decibels cannot be achieved in the short term "for various reasons, and where policy-makers choose to adopt a stepwise approach."

In 2018 the WHO issued revised Noise Guidelines to protect human health - Environmental Noise Guidelines for the European Region. Key recommendations are: *'For average noise exposure, the GDG strongly recommends reducing noise levels produced by aircraft below 45 dB Lden, as aircraft noise above this level is associated with adverse health effects. For night noise exposure, the GDG*

strongly recommends reducing noise levels produced by aircraft during night time below 40 dB Lnight, as nighttime aircraft noise above this level is associated with adverse effects on sleep.'

The absence of any meaningful action by Government on introducing WHO Guideline target values for noise over the last 40 years (1980-2020) means it is increasingly impossible to achieve the targets. In July 2004 the DfT gave the following commitment regarding achieving the WHO targets for night flights by 2030: *'The guideline values are very low. It would be very difficult, if not impossible, to achieve them in the short to medium term without draconian measures - but that is not what the WHO proposed. The recommendation was that the Guidelines for Community Noise should be adopted as long term targets for improving human health. The UK Government is committed to take account of this. In respect of aircraft noise at night, the 30 year time horizon of the White Paper, provides a suitable parameter for longer term.'*

This 2004 Government commitment referred to the WHO Guideline values as they stood in 2004. Meeting the even more stringent 2018 Guideline target values in any acceptable time table is even more impossible. Moreover, CV 19 is devastating airline finances and this will surely defer investment in less noisy aircraft and so further delay meeting the WHO Guideline noise targets. The DfT consultation provides evidence of the current high population numbers exposed to noise and we discuss these in answer to Question 8.

The substantial evidence on the harmful impact of noise used by the WHO in establishing its Guideline target values means the values are robust. While the ever advancing research on the negative health impact is useful, the case for Government action has long been firmly established by the WHO.

RHC Recommendation (7): Government take action without further delay to:

- a. Establish the legal status of the WHO guideline values, 2018,**
- b. Establish a UK strategy and timetable for reducing the levels of community noise from aircraft and from other major sources to the WHO guideline values, 2018,**
- c. Integrate the WHO guidelines with the key National Noise Objective concerning reduction in adverse impacts of noise and the Heathrow Community Noise Objective discussed in Question 7.**

The Government commissioned a SoNa 14 (Night) assessment of night flight noise impact and six years later the results still have not been published in spite of the many community requests. We understand it may be published before the DfT 31 May extended deadline for Stage 1 Early Views consultation. We believe it essential that this study be published before the consultation and in time for due consideration by the relevant stakeholders including ourselves. [Postscript 3/9/21: SoNa 14 Night was published in July 2021] Even more importantly, the Government action with regard to the WHO Guidelines, which RHC recommends above, should be implemented before developing any more ineffective strategies for managing aviation noise and its reduction. We understand the DfT believes the WHO Guideline values have no legal status and therefore there is no reason to measure and monitor noise against the WHO Guideline values. We regard this as wholly unacceptable.

RHC Recommendation (8): The DfT to publish SoNa 14 (Night) Report with time for due consideration by stakeholders before closure of the Early Views consultation on night flights on 31 May 2021 [Postscript 3/9/21: SoNa14 Night was published in July 2021].

WebTAG Assessment of Harm from Night Flights

The consultation says that use will be made of the webTAG assessment tool and that this is still being modified by the DfT. RHC urges an early revision to webTAG so that it is fit for purpose in assessing the harm on health and annoyance from aviation and that it be used to provide an Impact Assessment for the proposed Night Flight regime 2022-2024. This assessment needs to be consulted on before the government takes any decision on the longer term future of Night flights.

RHC urges the webTAG assessments be optimised by minimising the average noise per individual or household and not by minimising the Total adverse impact across the population. The former results in dispersion of noise and the latter results in concentration.

RHC also urges the DfT to incorporate in webTAG the WHO Guideline threshold value for night flights of 40 dBA 8hr night. At the moment the lowest level accounted for is 45 dBA 8hr night.

RHC Recommendation (9): The DfT to update and consult on a revised webTAG assessment tool with time for due consideration by stakeholders before closure of the Early Views consultation on night flights on 31 May 2021 [Postscript 3/9/21: this has not been done as far as we are aware].

Question 8. Do you agree with how our October 2022 to 2024 draft noise objective for the designated airports will be measured?

Answer - No

RHC Comment:

Heathrow Noise Performance Metrics

ANG17 paragraph 3.5 discusses the meaning of ‘significantly adversely affected’. It says there is no single threshold common to each and every individual. However it is possible to set a Lowest Observed Adverse Effect Level (LOAEL) that is regarded as the point at which adverse effects begin to be seen on a community basis. *‘As noise exposure increases above this level, so will the likelihood of experiencing an adverse effect. In line with this increase in risk, the proportion of the population likely to be significantly affected can be expected to grow as the noise level increases over the LOAEL. For the purposes of assessing and comparing the noise impacts of airspace changes, the government has set a LOAEL of 51dB LAeq16hr for daytime noise and 45dB LAeq8hr for night time noise and the CAA should ensure that these metrics are considered.’*

The Government has so far not taken forward WHO proposals but instead is relying on a SoNa Study, February 2017, that is not fit for the purpose. The SoNa Night Study has long been delayed in publication and is still awaited. The Government and Heathrow are relying on a Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL), as shown in Table 3:

TABLE 3	Day-time 0700-2300	Night-time 2300-0700
	dB LAeq 16h	dB LAeq 8h
LOAEL	>51	>45
SOAEL	>63	>54
UAEL	>71	>66

RHC believes the LOAEL and SOAEL levels are too high with damaging consequences to the health, well-being and productivity of over two million people surrounding Heathrow. This is even more the case when considering the most vulnerable such as children, elderly and those living close to the airport who are exposed to high levels of noise. We are not necessarily suggesting the LOAEL and SOAEL levels should not be used for managing noise or that the levels should be changed to those of the WHO Guidelines. We recognise the practicalities of measuring and indeed achieving noise levels below LOAEL but we believe the WHO Guideline values at the very least should be established as targets and part of the noise management framework.

There are no WHO 45 dBA LAeq 8hr night contours in the DfT consultation and there should be. Instead the Government relies on a 48 LAeq 8hr night metric. Figure 1 below shows in light blue the large area exposed between 45 and 48 dBA 8hr night contours, which is not accounted for in the Government controls.

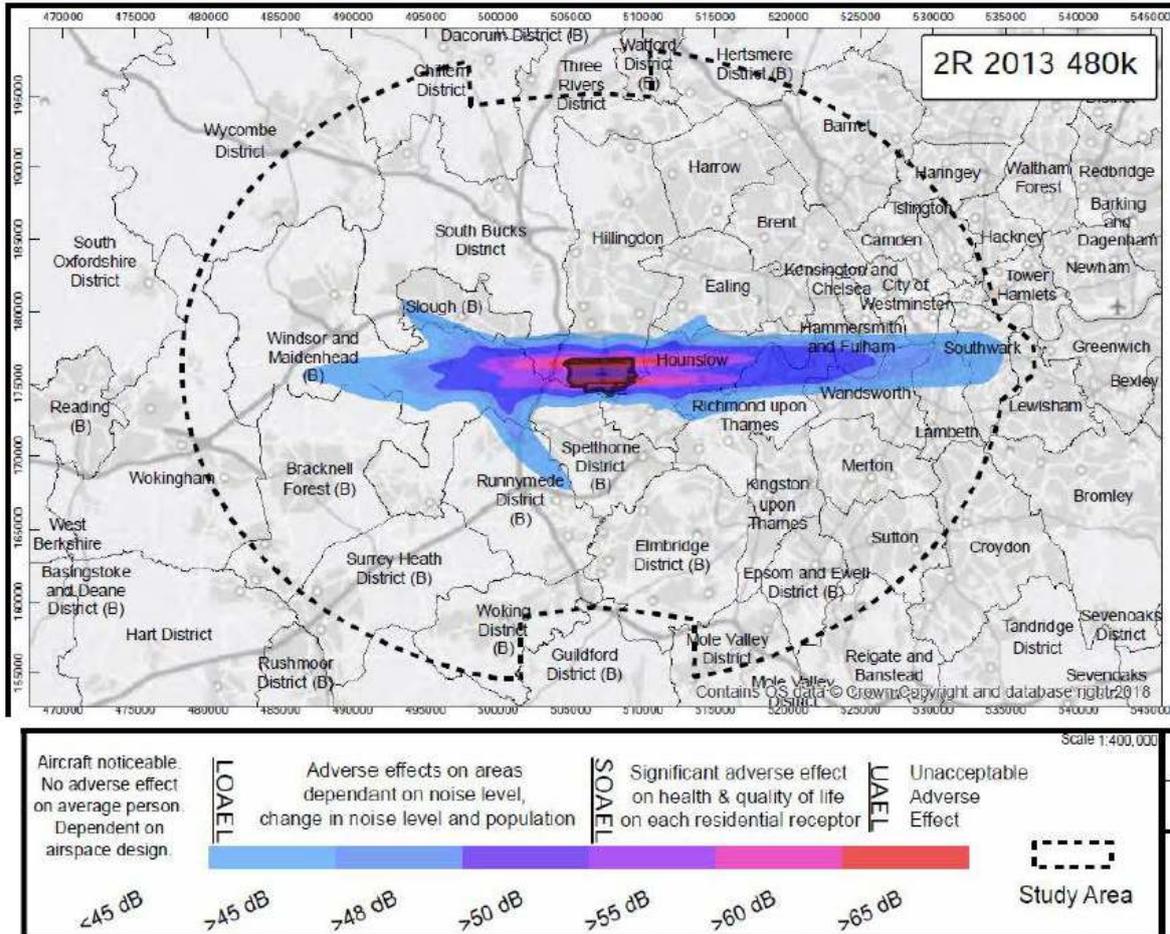


Figure 1 Heathrow Night Flight Contours 8 hour LAeq 2013. Source Heathrow Master Plan August 2019

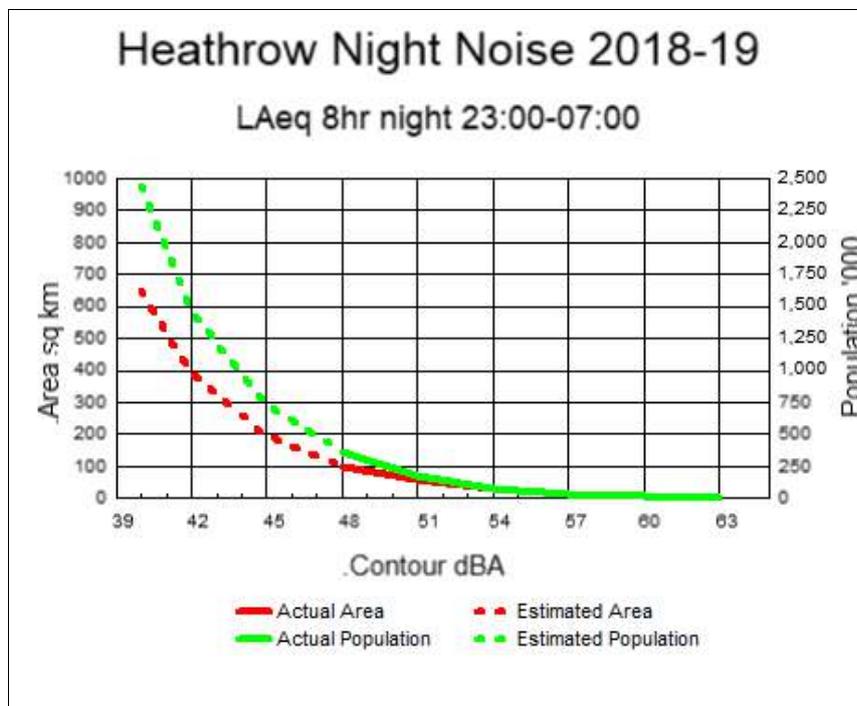


Figure 2 Source: Actuals-DfT consultation Annex G; RHC Estimates- Doubling of area for 3dB reduction and uniform population density

Figure 2 above extrapolates the actual 8hr night contours detailed for 2018/19 in Annex G of the DfT consultation so as to indicate the area and population that might be within a WHO 40 dBA 8hr night contour. We assume a doubling of area for every 3dBA reduction (an acoustic norm) and a uniform population density in line with that in the other contours.

Within the 48 dBA 8hr night contour there are 365,500 people but within the 40 dBA 8hr night contour there are estimated 2.4 million people. This is a very large number of people exposed to harmful night noise from Heathrow aircraft between 23:00 and 07:00. The Government has not yet accepted the WHO Guidelines so they are not policy but that does not mean that they are not very relevant.

Exposure to noise at higher levels is sometimes forgotten in seeking to assess the population exposed at threshold levels and yet higher noise levels are potentially very harmful to sleep and health. Also, the consultation fails to provide single event maximum noise metrics, which in wakening people from otherwise uninterrupted sleep are as much if not more significant than average noise levels.

Heathrow and the DfT also use a supplementary metric LAeq 6.5hr night, which covers the Noise Quota period 23:30-06:00. See Table 4.

Table 4	Heathrow: Population Affected LAeq 6.5hour night			
	Actual			Estimated
Year	2006	2011	2016	2023
Population	207200	199300	221200	207500

The actual population exposed between 2006 and 2016 has increased according to Heathrow’s Noise Action Plan 2019 and is no better by 2023 according to Heathrow’s consultation on Airport Expansion August 2019 (pre-CV 19).

These figures contradict the more optimistic reduction in noise levels shown in the DfT consultation. But even some of these include increases. The LAeq 8hr night metric shows an increase in population exposed between 2011 and 2018-19 in the 51 dBA contour (170.1k to 182.2k people), notwithstanding a reduction in the 48 dBA contour (388.8k to 365.5k people).

RHC Recommendation (10): The DfT to publish the Heathrow 45 dBA 8hr night, 40 dBA 8hr night and Lmax 8hr night contours with time for due consideration by stakeholders before closure of the Early Views consultation on night flights on 31 May 2021.

HEATHROW RESTRICTIONS 2022-2024

Question 9. Do you agree that we should maintain the existing restrictions for two years from October 2022 to October 2024?

Answer - No

RHC Comment:

In answer to Question 7 we proposed a ban on scheduled and unscheduled movements from 23:00 to 07:00 with a shift of flights to the daytime after 07:00 and before 23:00. In the absence of our priority taking effect and during any staggered introduction of a night flight ban we seek further restrictions. The Night Period from 23:00 to 7:00 is divided into three periods: Late Evening

Shoulder, a Night Quota Period and Early Morning Shoulder. Table 5 describes the existing restrictions in these periods in black and DfT Proposals, 2022 to 2024, in Red and RHC Proposals in Blue:

Table 5		HEATHROW NIGHT FLYING RESTRICTIONS					
	Late Evening Shoulder 23:00-23:30	Night Quota Period 23:30-6:00		Early Morning Shoulder 06:00-07:00			
Movement Limits	None	Winter 2018/19: 2,550 (used 2,713) Summer 2019: 3,250 (used 2,766) Unchanged 2019 to 2024		None			
Noise Quota Points- Limit	None	Winter 2018/19: 2,415 (used 2,297) Summer 2019 : 2,735 (used 2,123) Unchanged 2019 to 2024 Reduce to 2020 levels		None			
Carry-over between seasons - Movements		Yes					
Carry-over between seasons - NQ Points		Yes					
Ban on Noisiest Aircraft:	Schedule	Operational	Schedule	Operational	Schedule	Operational	
QC/16 & QC/8 0; 0*	Ban	Ban	Ban	Ban	Ban	Ban	
QC/4 2;10	Ban	No Ban Ban	Ban	No Ban Ban	Ban	No Ban Ban	
QC/2 521; 365	No Ban Ban	No Ban Ban	No Ban Ban	No Ban Ban	No Ban Ban	No Ban Ban	
QC/1 558; 617	No Ban Ban	No Ban Ban	No Ban	No Ban Ban	No Ban	No Ban Ban	
QC/0.5 1,125; 1,175	No Ban Ban	No Ban Ban	No Ban	No Ban Ban	No Ban	No Ban Ban	
QC/0.25 503; 587	No Ban Ban	No Ban Ban	No Ban	No Ban Ban	No Ban	No Ban Ban	
QC/0.125 4; 12	No Ban Ban	No Ban Ban	No Ban	No Ban Ban	No Ban	No Ban Ban	
QC less than 0.125 0; 0	No Ban Ban	No Ban Ban	No Ban	No Ban Ban	No Ban	No Ban Ban	
Dispensations	Yes		Yes		Yes		
Runway preference	Westerly		No Preference		Westerly		
Runway Rotation	Yes		Yes		No (TEAM)		
* Aircraft Movements winter 2018/19; summer 2019. Black existing Feb 2021; Red DfT proposal ; Blue RHC proposal							
<i>Prepared by Richmond Heathrow Campaign Feb 2021</i>							

We agree with the DfT proposed ban on all QC4 aircraft and we propose a ban on all QC2 aircraft 23:00-07:00. In Table 2 and in answer to Question 7 we detailed the unscheduled flights in the evening and early morning shoulder periods and we recommend these be banned. It should be fully possible to ensure there are no late runners after 23:00 and early arrivals before 07:00, especially if scheduled night flights are retained at 2020 levels, as we recommend in the absence of a total ban.

We have doubts as to the effectiveness of the Quota System in reducing the noise energy at night but in line with the 2017 decision to reduce quota levels, we recommend the quota limits be lowered to actual

levels in 2020 as a very minimum. An issue with the QC system is aircraft certification where certified aircraft noise is sometimes understated when compared to noise during real operations.

RHC Recommendation (11): In the absence of a Heathrow night flight ban or during any staggered introduction of a night flight ban, all Heathrow QC4 and QC2 aircraft to be banned between 23:00 and 07:00 and all aircraft banned in the Late Evening Shoulder Period, 23:00-23:30, and all operational flights to be banned in Noise Quota Period, 23:30-06:00, and Early Morning Shoulder Period 06:00-07:00.

Question 10. What would be the impacts to you should the government maintain the existing restrictions for two years, from October 2022 to October 2024 (provide evidence to support your view)?

Answer

RHC Comment:

If air travel were to return to 2019 levels of activity and the Heathrow fleet remains largely unchanged by October 2022, we would not expect any material reduction in night noise from the high noise level that existed in 2019. This would be unacceptable. Furthermore, we are concerned that in the absence of proper controls the two night shoulder periods could result in increased noise, which would be even more unacceptable. Additionally, Heathrow may seek to add 25,000 Early Growth flights to its schedule, of which some are more than likely to be in the 06:00-07:00 period.

Airspace Modernisation may result in additional noise but constrained demand on account of climate change may result in less noise.

Airspace Modernisation

Airspace Modernisation is underway and it seems quite possible that before or during the 2022-2024 regime, flight paths and operations could be changed. The introduction of Performance Base Navigation (PBN) could be realised. These changes could have a significant and potentially harmful impact on communities, for example by concentrating the aircraft movements on PBN flight paths. With dissolution of the Cranford Agreement there is also the possibility during easterlies of introducing departures from the northern runway to the east and arrivals from the west, which hitherto have not been allowed due to the Cranford Agreement. We are concerned that the DfT consultation does not mention or take account of these changes.

Climate Change

There is increasing pressure on aviation to reduce its carbon footprint and while at this moment it is excluded from formal inclusion in the 8th Carbon budget and the UK's Nationally Determined Contribution Statement for Cop 26 in November 2021, it seems likely demand management will be required, and as we recommend, the number of night flights should be the first to be reduced.

Late Evening Shoulder Period 23:00-23:30

Heathrow appear to be introducing the term Recovery Period between 23:00 and 23:30 and Restricted Recovery Period between 23:30 and 00:00, which restricts the last late arrival to 23:30 and last late departure to 00:00. We believe this mis-interprets the rules or at least their spirit by allowing flights after 23:00. Heathrow's Noise Action Plan seeks to reduce the number of late runners (e.g. average of 8.9 flights a night in 2018, excluding dispensations) but it is unclear what management, penalties and incentives will be applied. We have recommended a ban on late runners in our answer to Question 9.

Unscheduled flights are hardly touched on in the consultation but they are a major noise issue. Examination of the capacity headroom using ACL schedules between 21:00 and 23:00 shows there is ample capacity and apart from exceptional circumstances when there is cumulative disruption through the day, late runners are not caused by capacity issues.

The Early Morning Shoulder Period 06:00-07:00

In the morning, flights (e.g. an average of 11.2 flights per night in 2018), especially from the far east, arrive early to benefit from first come first served landings - they are held in the stacks and then are called down to land by Air Traffic Control and by so doing add to the landings in the Early Morning Shoulder Period. This gives rise to unacceptable noise in the early morning.

Also, Heathrow seeks to add more flights through its Early Growth initiative with an additional 25,000 flights a year. The use of TEAM increases the runway capacity and the noise already disrupts people’s sleep. Early Growth in Early Morning Shoulder would be unacceptable.

We appreciate that the issues raised here are dependent on the recovery of travel. But the decision on the next Night flight regime is being made this summer and after which it will be too late to respond to realisation of the risks. Notwithstanding Heathrow’s Noise Action Plan, there are insufficient tools and plans to control the number of aircraft and their noise in the Early Morning Shoulder period and we recommend a ban on unscheduled flights as set out in our answer to Question 9.

Respite

Table 6 illustrates our understanding of the current Night Flight Respite regime. There is no discussion in the consultation on respite and we believe there should be. As far as we are aware the current arrangement is reasonable and fair but we raise the question that if Night Flights were to be limited to the reduced number in 2020, as we have recommended in the absence of a staggered ban, then might there be good reason to change the respite pattern. We are not making any recommendation here and until it becomes clearer what might be the managed demand in 2022 to 2024.

Night Flights - Runway Alternation Respite from <u>Scheduled</u> Flights Existing 2 Runways				
Table 6	Evening Shoulder 23:00-23:30	Night Quota 23:30-06:00	Morning Shoulder 06:00-07:00	
		Wind permitting	Westerlies	Easterlies
East of Airport				
Arrivals	Respite	3 wks respite out of 4 wks 15.5 flts/nt	1 wk out of 2 wks but with TEAM 23.2 flts/nt	Respite
Departures	Respite	Respite	Respite	1 wk out of 2 wks but with TEAM 32.5 flts/nt
West of Airport				
Arrivals	Respite	3 wks respite out of 4 wks 15.5 flts/nt	Respite	1 wk out of 2 wks but with TEAM 23.2 flts/nt
Departures	Respite	Respite	1 wk out of 2 wks but with TEAM 32.5 flts/nt	Respite
Prepared by Richmond Heathrow Campaign Confirmation needed from HAL				

Balanced Approach (UN ICAO Policy)

The Balanced Approach is failing as a regulatory tool in many ways. We appreciate the topic is discussed in the Early views section of the DfT consultation closing on 31 May 2021 [Postscript 3/9/21], but we want to make mention here because we urge the DfT to review and improve application of the Balanced Approach as soon as possible.

Reduction in noise at Source.

The reduction in noise at source from new types of aircraft and the rate of fleet change tend to be

overstated and as we say in Question 7 the Industry is unlikely to have the funds to invest in less noisy aircraft for some considerable time. The pandemic and carbon constraints on air travel will impact aircraft fleets using UK airports with potentially significant consequences for carbon emissions, air pollution and noise.

The noise impact from an increasing proportion of the aircraft fleet being comprised of larger aircraft (notwithstanding the demise of the Boeing 747 and ultra large A380) should be included but too often is ignored.

The uncertainties of fleet composition are growing and require urgent review before noise at source levels are assumed for the future. We cannot rely on a reduction in noise at source to reduce Night time noise and its impact any time soon.

Land use planning and management.

The confusion in planning law and the pressure to build housing in London makes it very difficult for local authorities to reduce the impact of aviation noise through the land use planning.

There is a serious lack of information on the future number and location of flight paths resulting from modernisation, which is causing major blight across London.

Noise improvements ultimately rely on less noisy aircraft but the benefit long term is potentially offset by London's population growth, which should be included in airspace design but too often is ignored.

Land use planning potentially can reduce the impact of aircraft noise on communities but this is unlikely to be applicable more than a few kilometres from the airport - yet still important because this is where the noise levels are the highest. The noise criteria for insulation are far too high to benefit most of the community affected by night flights.

Noise abatement operational procedures. The Inquiry by the All Party Parliamentary Group on Heathrow and the Wider Economy in its report 'Noise from Heathrow Airport, December 2014', found *'the effect of the procedures individually and collectively in reducing in absolute terms the present air traffic noise levels will be somewhat marginal'*. The procedures include continuous descent, landing gear timing, reduced flap setting and steeper approaches. Heathrow's Noise Action Plans implement procedures for noise reduction within the confines of trade-offs with fuel, carbon and NOX. Improved procedures while welcome, especially in the aggregate, are insufficient to materially reduce night time noise.

Restrictions

In view of the inadequacies of the first three priorities of the Balanced Approach (reduction in noise at source, land use planning and noise abatement) the only solution to night time noise is the use of restrictions in the manner we address in this response, which ultimately we believe should conclude with a night time ban, 23:00-07:00.

Question 11. What would be the impacts to you should the government allow the night flight restriction in place at the designated airports to lapse (provide evidence to support your view)?

Answer

RHC Comment:

Depending on the recovery from CV 19, the scenario described in answer to question 10 would probably be worse from a noise point of view on the assumption there would be more flights and less noise abatement.

Question 12/13. Do you agree we should ban QC4 rated aircraft movements from operating at the designated airports between 23:30 and 06:00 from October 2022?

Answer - Yes

RHC Comment:

We urge the Ban to extend to both shoulder periods. We realise that few 747 aircraft are likely to visit Heathrow now that BA have ceased their use. But they may still be used as freighters and are noisy as evidenced by the QC rating and as witnessed by members of the public.

SUMMARY OF RICHMOND HEATHROW CAMPAIGN RECOMMENDATIONS

- 1. Update Noise Objective to that in the Air Navigation Guidance 2017 (Q7).**
- 2. Introduce a Heathrow Community Noise Objective for sharing of noise (Q7).**
- 3. Restrict the number of Heathrow Night Flights, 23:00-07:00 to the numbers in 2020 (Q7).**
- 4. Arrival and Departure Times to be annotated with an “S” for stand time and “R” for runway time (Q7).**
- 5. Introduce a Night Flight Ban, 23:00-07:00 for all scheduled and unscheduled flights except for dispensed flights with staggered introduction completed by October 2024 (Q7).**
- 6. The DfT and Heathrow to produce Economic and Environmental Assessments for Heathrow’s night flights so as to properly weigh up the balance of benefit and cost (Q7).**
- 7. Government action without further delay to:**
 - a. Establish the legal status of the WHO guideline values, 2018,**
 - b. Establish a UK strategy and timetable for reducing the levels of community noise from aircraft and from other major sources to the WHO guideline values, 2018,**
 - c. Integrate the WHO guidelines with the key National Noise Objective concerning reduction in adverse impacts of noise and the Heathrow Community Noise Objective discussed in Question 7 (Q7).**
- 8. The DfT to publish SoNa 14 (Night) Report with time for due consideration by stakeholders before closure of the Early Views consultation on night flights on 31 May 2021 (Q7).**
- 9. The DfT to update and consult on a revised webTAG assessment tool with time for due consideration by stakeholders before closure of the Early Views consultation on night flights on 31 May 2021 (Q7).**
- 10. The DfT to publish the Heathrow 45 dBA 8hr night, 40 dBA 8hr night and Lmax 8 hr night contours with time for due consideration by stakeholders before closure of the Early Views consultation on night flights on 31 May 2021 (Q8).**
- 11. In the absence of a Heathrow night flight ban or during any staggered introduction of a night flight ban, all Heathrow QC4 and QC2 aircraft to be banned between 23:00 and 07:00 and all aircraft banned in the Late Evening Shoulder Period, 23:00-23:30, and all operational flights to be banned in Noise Quota Period, 23:30-06:00, and Early Morning Shoulder Period 06:00-07:00 (Q9).**

Annex 3 March 2021 attached: Heathrow Night Quota Period Flights & Originating Airports

Night Flights - Summer 2018 Schedule										ANNEX	
Route	BA	CX	VS	Airline		SV	SQ	UA	WY	BI	10
				QF	MH						
Hong Kong	0450 0530	0540	0530								
Los Angeles	0525										
Singapore	0505 0550						0555				
Riyadh	0535										
Johannesburg	0530										
Kuala Lumpur	0525				0555						
Chicago								0555			
Dubai	0555 (1)									0555 (1)	
Perth					0505						
	9										

Note: numbers in brackets are flights per week - all others are 7 days Source SDR 5 page 45 Figure 7

Night Flights - Winter 2018/19 Schedule										9
Route	BA	CX	VS	Airline		SV	SQ	UA	WY	
				QF	MH					
Hong Kong	0450		0455							
Hong Kong	0455	0500								
Cape Town	0445									
Lagos	0450									
Sydney	0455									
Melbourne					0505					
Singapore	0515						0555			
Riyadh	0525					0555 (1)				
Johannesburg	0525									
Accra	0530									
Kuala Lumpur	0535				0535					
Jeddah						0545 (3)				
Bahrain	0555 (1)									
Washington	0555 (1)									
Chicago							0555 (4)			
Muscat									0555	
	12									

Note: numbers in brackets are flights per week - all others are 7 days Source SDR 5 page 45 Figure 8

Winter only cities: Cape Town, Lagos, Sydney, Melbourne, Accra, Bahrain, Washington, Muscat
 Summer only cities: Perth, Dubai and Los Angeles
 Some flights from Australia fly via Hong Kong or Singapore