

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

INTRODUCTION

1. This is a written response of the Richmond Heathrow Campaign (RHC) to the DfT's consultation titled '*Night Flight Restrictions, 2 December 2020*'.
2. The two-stage consultation process seeks views on the regime at the designated airports beyond 2022. Stage 1 has 2 purposes:
 - a. The DfT propose to maintain 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). See DfT Questions 7 to 13. The DfT will take its decision in the summer 2021.
 - b. The DfT seek Early views and evidence on policy options for the government's future night flight policy at the designated airports beyond 2024, and nationally. See DfT Questions 14 to 78. Because of CV 19, the DfT has extended the deadline for early view responses to 31 May 2021 but suggested respondents may submit responses by 3 March, as originally scheduled. RHC proposes to defer its response until later in the period granted by the extended deadline. Our responses here are to Questions 7 to 13, covering the regime from 2022 to 2024. In many respects they provide our views on night flights in the longer term.

We understand that the DfT proposes the Stage 2 consultation on the longer term future of night flights beyond 2024 in the summer of 2022.

3. Respondent details are provide in response to DfT Questions 1 to 6 followed by responses to DfT Questions 7 to 13. RHC Recommendations are summarised at the end of this response.
4. 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.
5. 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.
6. 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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**HEATHROW NIGHT FLIGHT RESTRICTIONS, 2022-2024
DFT CONSULTATION QUESTIONS 1 to 13**

RESPONDENT DETAILS

1. Name: Peter Willan
2. action@richmondheathrowcampaign.org
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.

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	72.0	74.5
Low	31.7	43.0	54.7	59.0	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	0.0	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 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. 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.

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.

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.

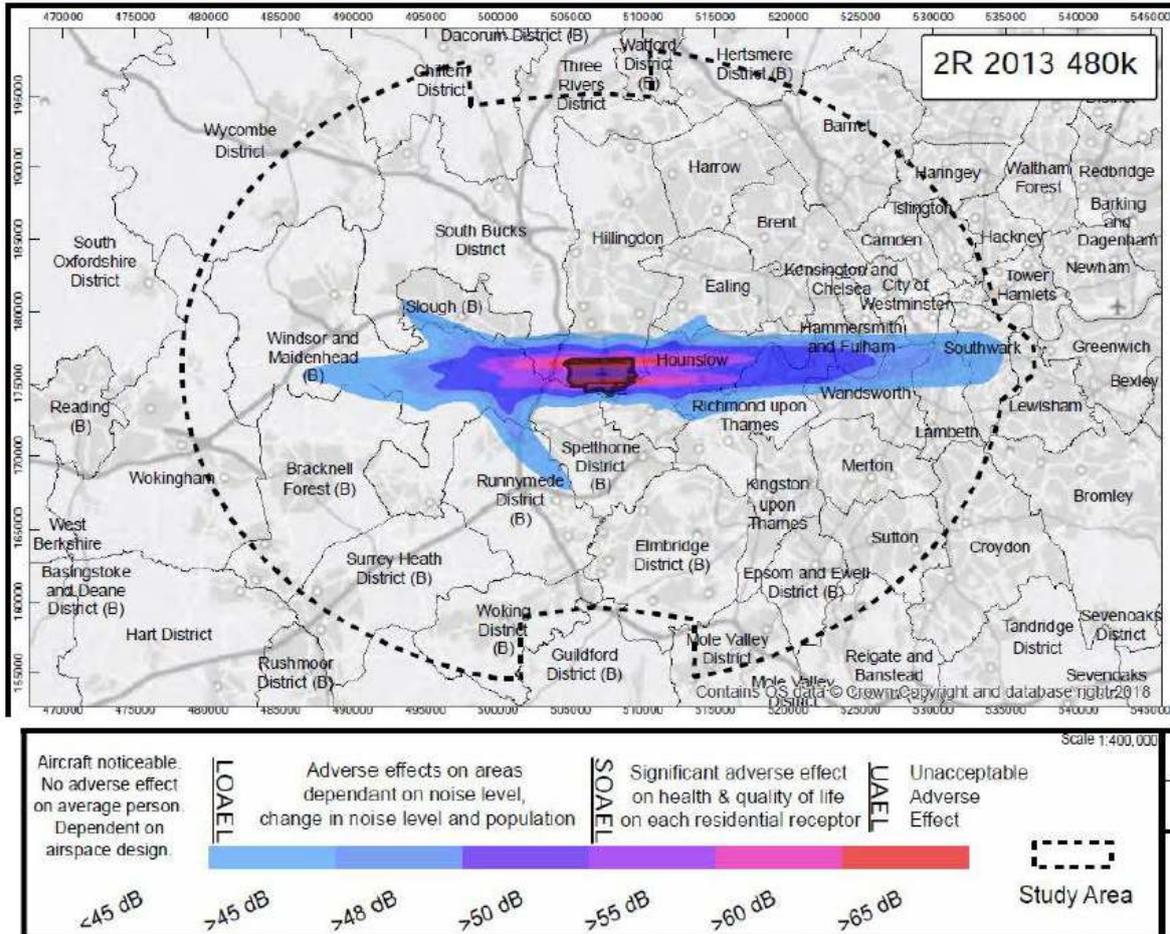


Figure 1 Heathrow Night Flight Contours 8 hour LAeq 2013. Source Heathrow Master Plan August 2019

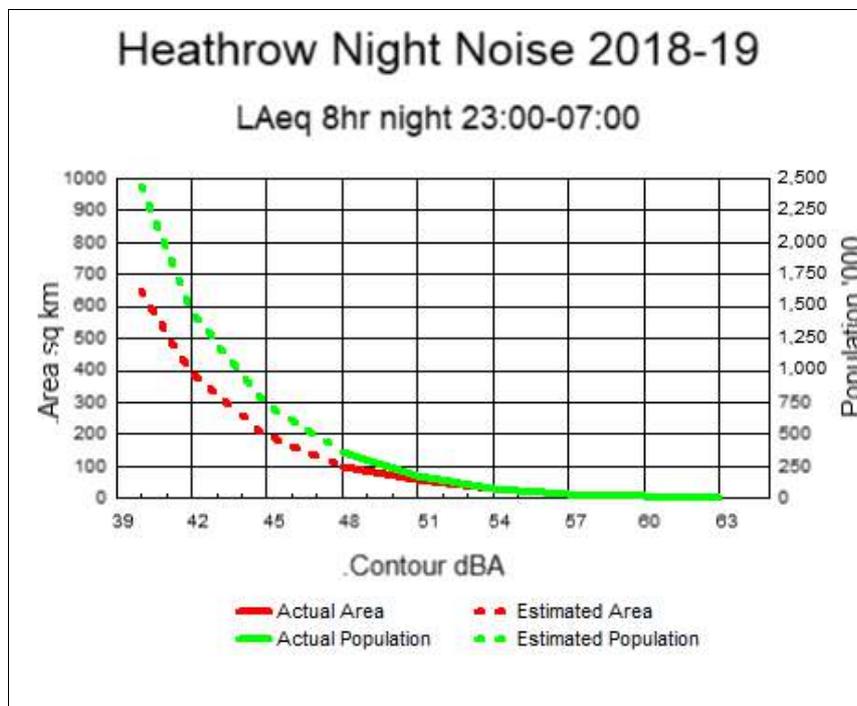


Figure 2 Source: Actuals-DfT consultation Annex G; RHC Estimates- Doubling of area for 3dB reduction and uniform population density

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	207,200	199,300	221,200	207,500

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, 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 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											
Route	BA	CX	VS	Airline		SV	SQ	UA	WY		9
				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