



AIRSPACE MODERNISATION AIRSPACE CHANGE PROPOSAL

APPENDIX B – STAKEHOLDER LOG & ENGAGEMENT CORRESPONDENCE/MATERIAL

(Part 2)





Heathrow's Airspace Change Update

20th October 2021

Heathrow

Airspace Change Portal

On the 13th October, the following Airspace Change Proposals (ACP) were updated on the CAA Portal with a new status of Withdrawn.

London Heathrow - Independent Parallel Approach Arrivals Procedure (ACP-2017-42)

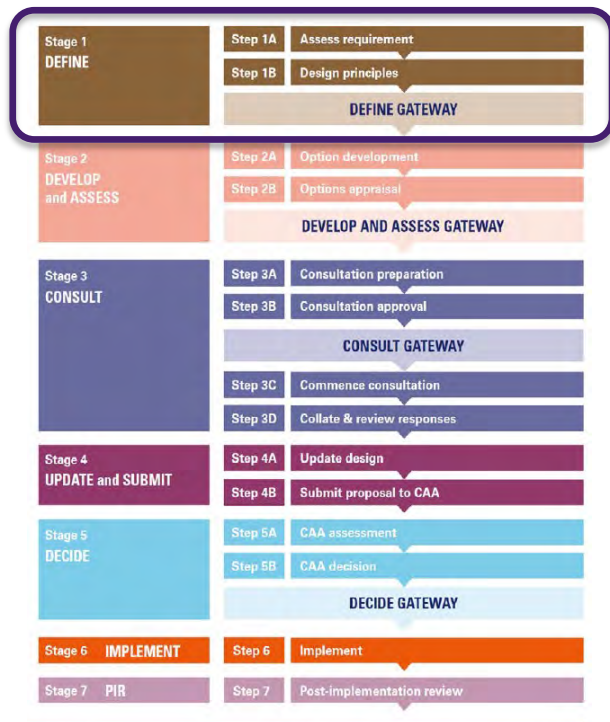
Arrivals 09L Independent Parallel Approaches (ACP-2019-29)

CPT Standard Instrument Departure - Runways 09L/R (ACP-2018-85)

London Heathrow - 3.2 degrees Slightly Steeper Approach Trial (ACP-2018-41)

The Slightly Steeper Approaches 3.2 degrees RNAV airspace change has been approved for adoption and is planned for implementation from December 2021 as a permanent procedure (ACP-2017-49)

Airspace Modernisation Airspace Change



- 7 Stage process, Heathrow's new Airspace change is at Stage 1
- Statement of Need (Step1A) submitted to the CAA in July
- [Airspace change proposal \(caa.co.uk\)](https://www.caa.co.uk)

Statement of Need (1 of 3)

The Government published its Airspace Modernisation Strategy (AMS) in 2018. The AMS lays out a national programme to modernise and upgrade the UK's airspace and sets out the work required of the aviation industry, including UK airports, to deliver airspace modernisation. A masterplan is now being created by the Airspace Change Organising Group (ACOG) to coordinate the delivery of airspace change across UK airports and NATS En Route Limited (who is responsible for the airspace above/beyond the airports' areas of responsibility).

Heathrow's current departure and arrival procedures were designed decades ago, at a time when aircraft and navigation were much less sophisticated than today. Through the introduction of airspace modernisation at Heathrow, the airport will make use of modern navigation technology to enable better aircraft performance, reduce delays and manage traffic in ways that mitigate, where possible, the impact on local communities.

Statement of Need (2 of 3)

Heathrow will also play its part in delivering the requirements of the UK's AMS, such as maintaining and enhancing high aviation standards, ensuring the efficient use of airspace, avoiding flight delays by better managing the wider airspace network, and improving environmental performance by reducing emissions and noise impacts on local communities.

Heathrow had initially proposed to undertake airspace modernisation through its Airspace Change Proposal (ACP) for Airport Expansion, but the Expansion project is on pause as the current priority is to recover from the COVID-19 pandemic. However, Heathrow remains committed to the airspace modernisation programme and is therefore proposing to progress the changes required to keep pace with the wider UK programme, via this new ACP, based on our existing two runways.

Statement of Need (3 of 3)

Through the new airspace design, Heathrow will seek to minimise the impact of potential changes to its airspace design as far as is practical, such as those that may result from the developments of future navigation technologies, the introduction of Urban Air Mobility (UAM), other anticipated aircraft fleet changes, or expansion of the airport.

Airspace Modernisation: Design Principles Engagement

27 Sep – 6 Oct	Workshops	Stakeholder workshops (HCNF, HCEB, LA's etc.)
12 & 13 Oct	Focus Groups	Independently led with small groups of general public
15 Oct	Stakeholder proposed matrix distributed	Workshop presentation and stakeholder proposed design principle matrix emailed to all who attended workshops
15 Oct – 12 Nov	Stakeholder Feedback period	Completion and return of DP matrix
End of Nov	Workshops	Phase 2 Workshops where we will present the proposed Design Principles

Note – If you were unable to attend a workshop but would like to see and respond to the stakeholder proposed design principles – email: airspace@heathrow.com

www.Heathrow.com/airspacemodernisation

Indicative Timeline

CAP1616	2021	2022	2023	2024	2025	2026	2027	2028	2029
Stage 1 Define	Active	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Stage 2 Develop & Assess	Completed	Active	Active	Completed	Completed	Completed	Completed	Completed	Completed
Stage 3 Consult	Completed	Completed	Completed	Active	Active	Completed	Completed	Completed	Completed
Stage 4 Update & Submit	Completed	Completed	Completed	Completed	Completed	Active	Active	Completed	Completed
Stage 5 CAA Decide	Completed	Completed	Completed	Completed	Completed	Completed	Active	Completed	Completed
Stage 6 Implement	Completed	Completed	Completed	Completed	Completed	Completed	Active	Active	Active

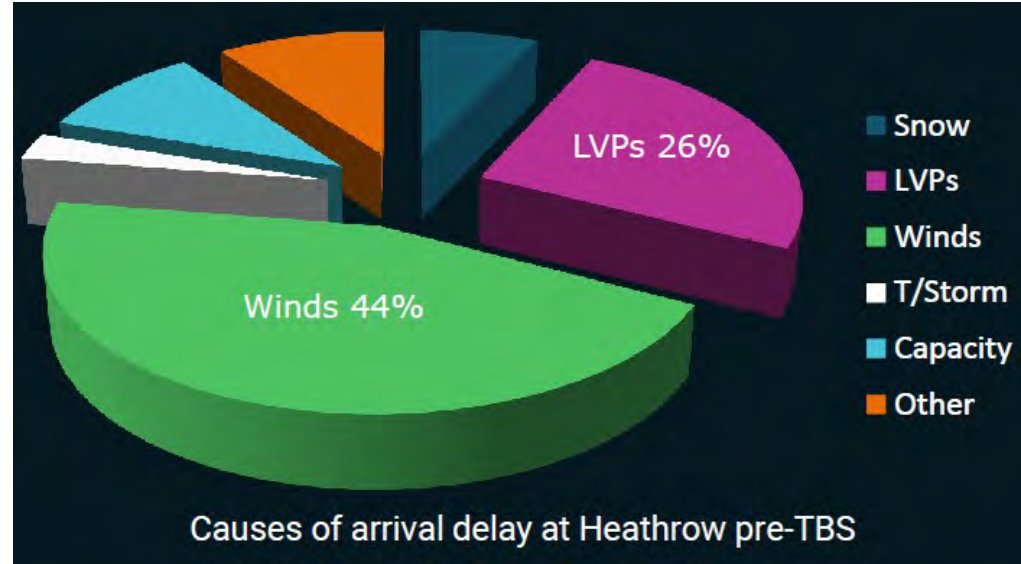
Intelligent Approach: Time Based Separation

Heathrow Pairwise
(PWS) – separations on
approach

Evolution

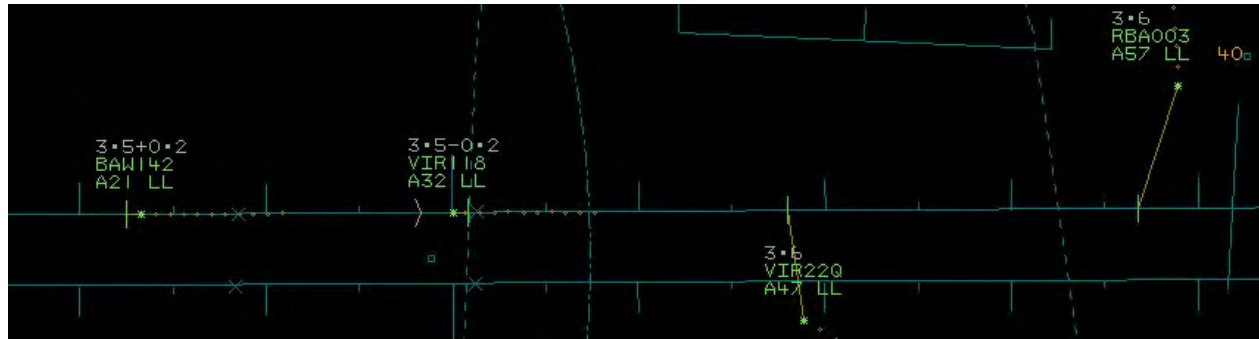
Time Based Separation introduced 2015. Original

- Wind related ATFM delay of 160,000 - 180,000 minutes per annum
- Wind causes significant delays on 55-65 days per annum (2015 had 95 days with headwinds >20knots)
- This was the original business case driver for TBS at Heathrow – since then the benefits case is more broadly linked to overall runway resilience, runway throughput (within the ATM cap) & environment



TBS to Pairwise Evolution

- **TBS** was introduced on 24 March 2015 with UK 6 CAT Wake Vortex separation and associated UK procedures
- It was in continuous operation until **e-TBS** (enhanced TBS) was deployed in March 2018
- **e-TBS** was introduced at Heathrow initially on in March 2018
- **e-TBS** is the current Heathrow final approach separation and spacing tool.



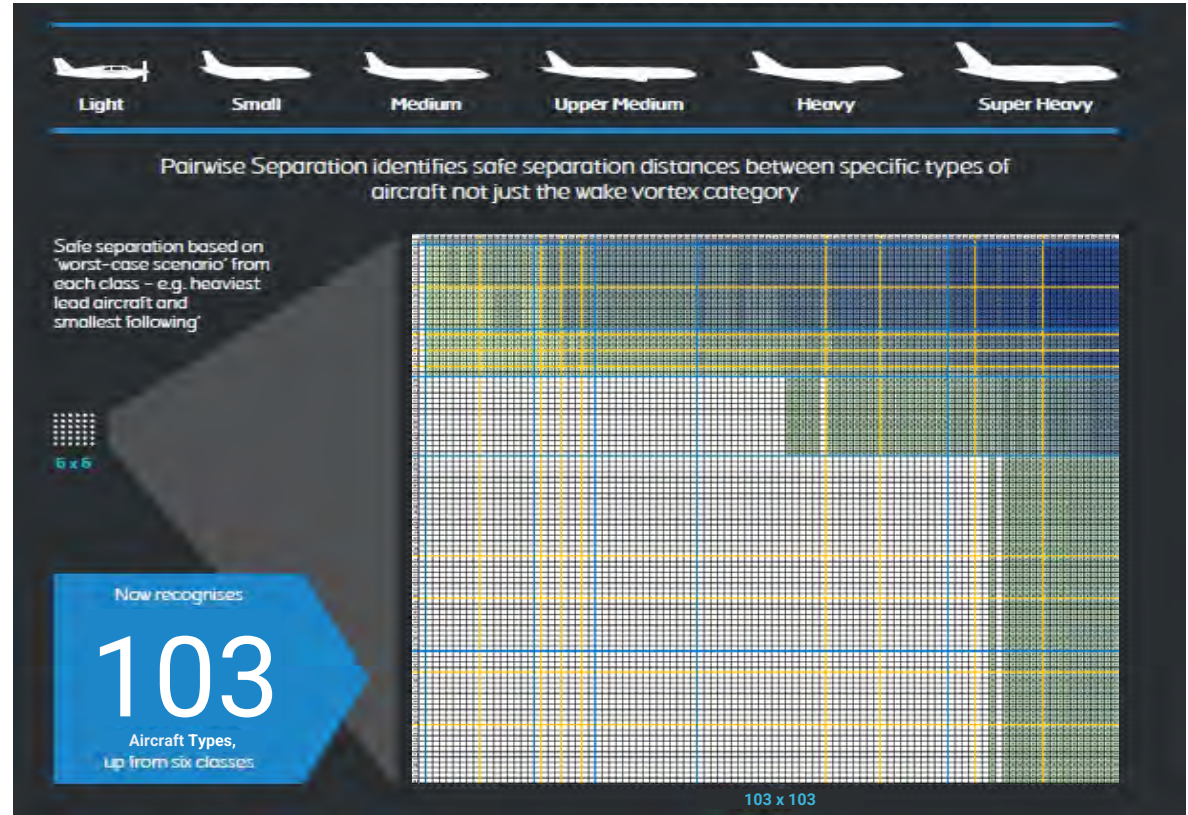
RECAT-EU-PWS with TBS

Estimated up to c.1.5 landings per hour translated into operational resilience, less holding, lower fuel burn, greater resilience and lower CO2 emissions.

Project timeline:

- Product Development, April '21 to Jan '22.
- 2022: build, install,
- Controller training, Winter '22

Implementation Spring 2023





Factors Affecting Departure Heights

[REDACTED], GM NATS Heathrow

Main
Factors
Affecting
Departure
Climbs

Aircraft type

Load

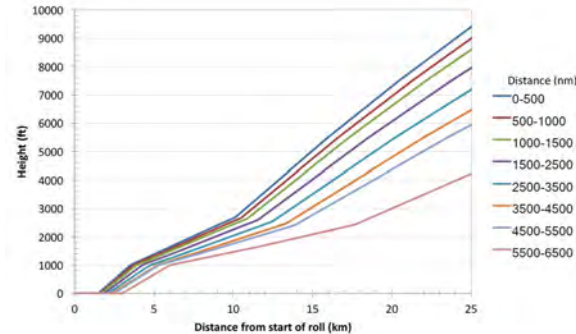
Atmosphere

Route interactions

Aircraft Type and Load

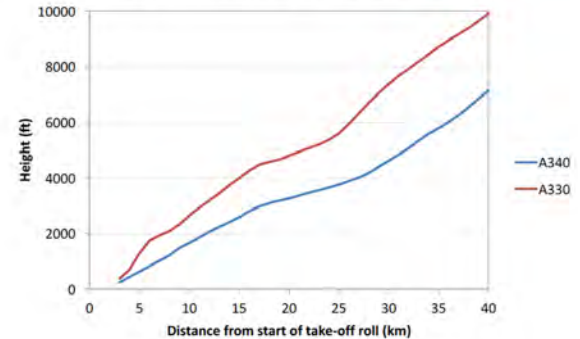
- Initial climb performance, up to 1000 feet, strongly influenced by aircraft type. Particularly number of engines.
- Acceleration phase, typically post 1000 feet.
- Destination, long or short haul, with resulting fuel load.

Effect of mass on aircraft height



Aircraft performance: 2 and 4 Engines

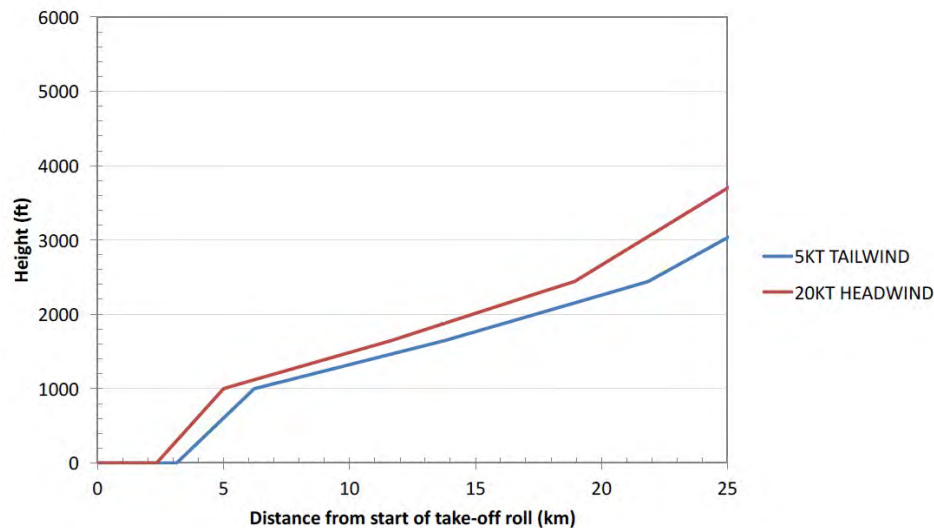
- South African Airlines to Johannesburg: A330 vs A340



Atmosphere

- Temperature, related to air density
- Wind strength
- Westerly preference, potential small tailwind

Effect of wind on climb performance



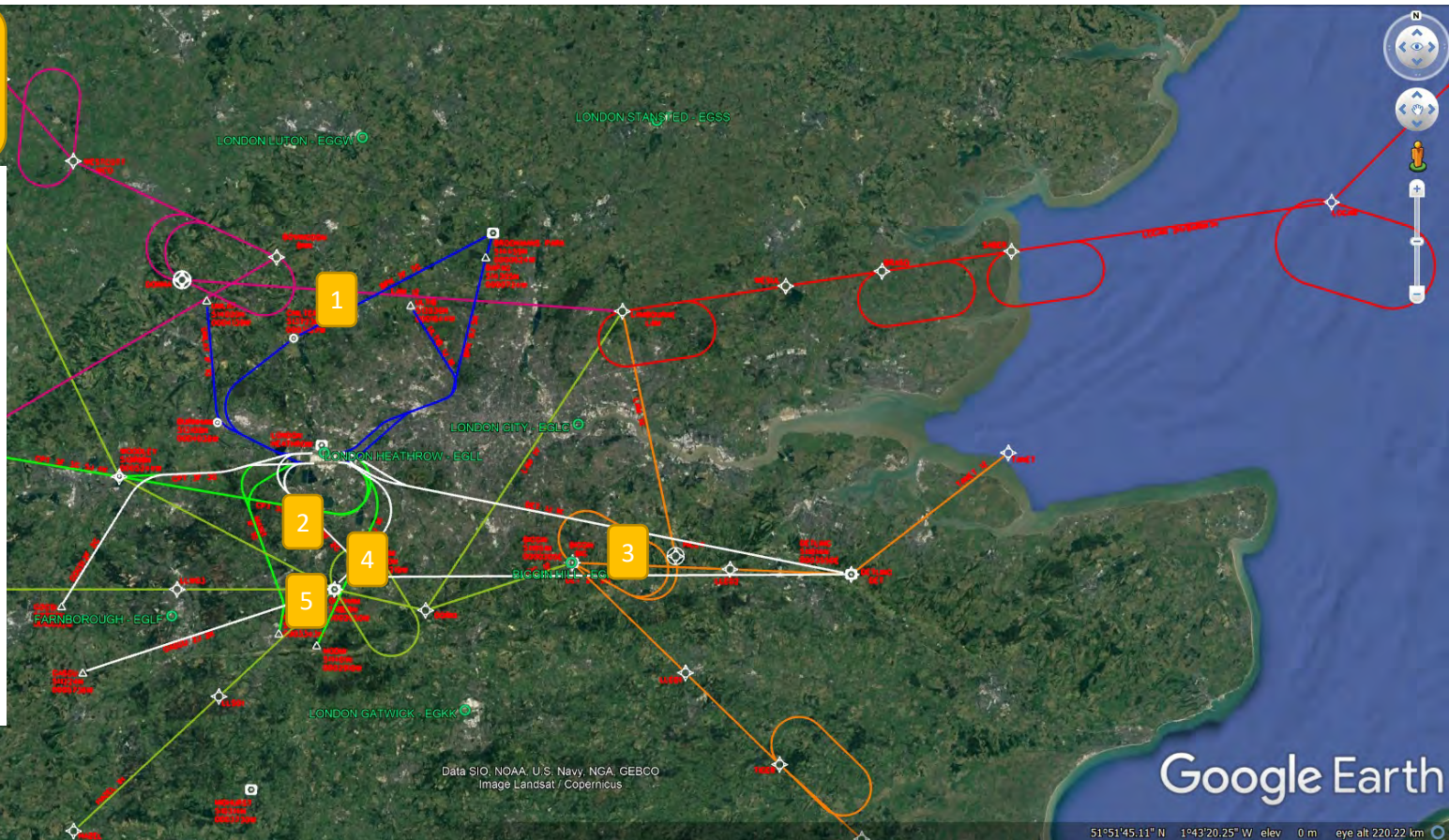
Route Interactions

- Unrelated to previous factors, and outside of initial climb considerations
- Current Airspace design in the TMA, SIDs can be held at 6000 due to interactions with Heathrow STARS.
- Controllers are unable to clear aircraft for further climb until clear of these routes.
- One of the outcomes of the AMS could be to look to deconflict routes, enabling continuous climb to more departures.

Heathrow Arrivals and Departures

1. BPK, UMLAT and ULTIB are all impacted by traffic coming off LAM or BNN holds.
2. Easterly CPT is impacted by OCK hold
3. DET is impacted by BIG hold
4. Easterly GASGU is impacted by OCK hold
5. MAXIT and MODMI is impacted by OCK hold

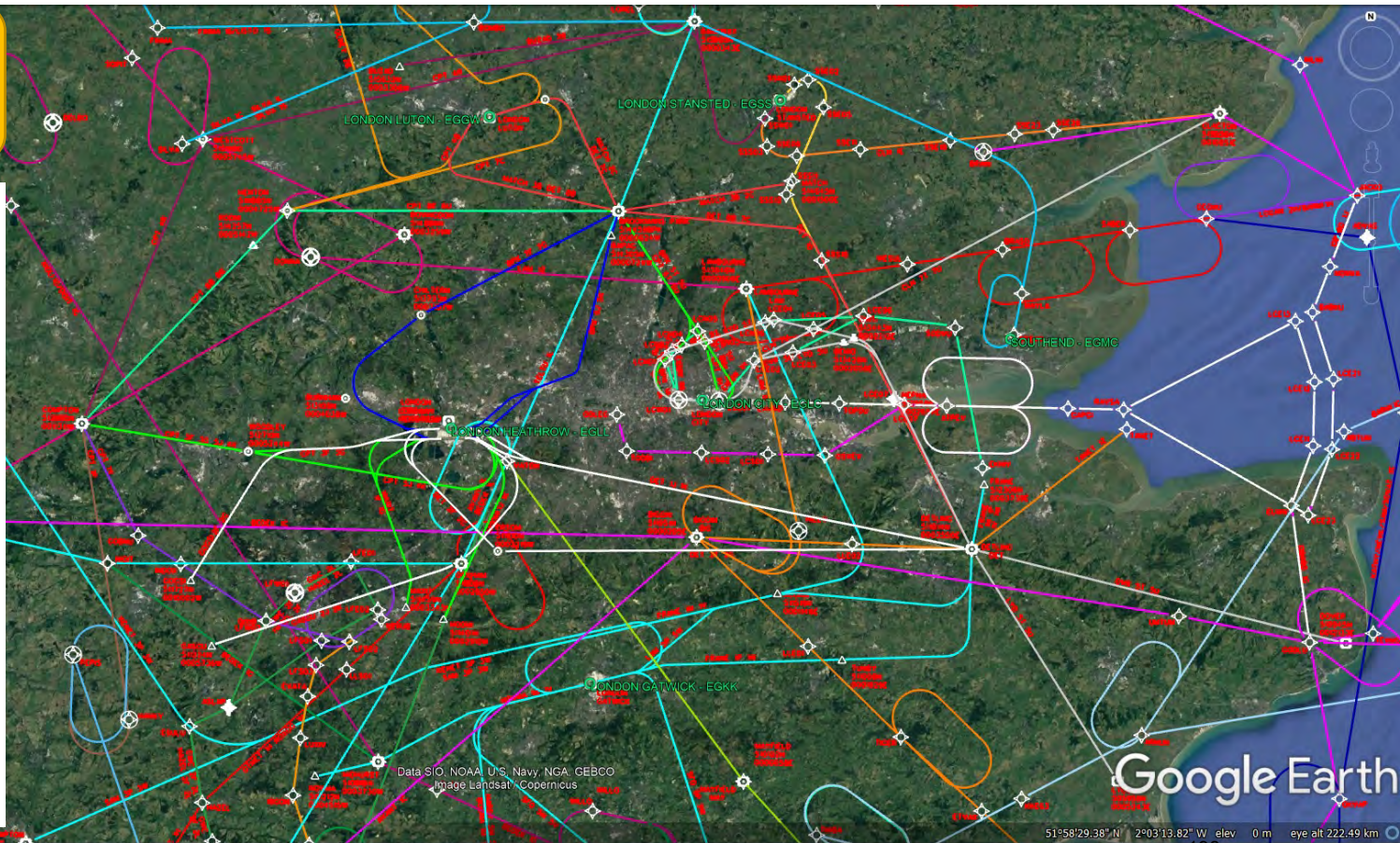
All of these restrict when aircraft can be given further climb instructions above the SID level



London TMA

The same principle impacts lots of routes in the TMA, that have evolved in a piecemeal basis over time.

The AMS will enable a holistic approach to route redevelopment, and an opportunity to reduce interactions, enabling earlier climbs to higher altitudes



Data: SIO, NOAA, U.S. Navy, NGA, GEBCO
Image: Landsat, Copernicus

Google Earth

51°58'29.38" N 2°03'13.82" W elev 0 m eye alt 222.49 km

Heathrow

Heathrow Community Noise Forum

Meeting notes (20 October 2021, 13:00 – 15:00, Microsoft Teams)

Confirmed attendees

Name	Borough / Organisation
[REDACTED]	Buckinghamshire Council
[REDACTED]	Elmbridge Borough Council
[REDACTED]	London Borough of Hounslow
[REDACTED]	London Borough of Richmond upon Thames
[REDACTED]	Royal Borough of Windsor & Maidenhead
[REDACTED]	Runnymede Borough Council
[REDACTED]	Surrey County Council
[REDACTED]	Ealing Aircraft Noise Action Group (EANAG)
[REDACTED]	Englefield Green Action Group (EGAG)
[REDACTED]	Englefield Green Action Group (EGAG)
[REDACTED]	HASRA
[REDACTED]	HASRA
[REDACTED]	HACAN
[REDACTED]	Molesey Residents Association
[REDACTED]	Plane Hell Action
[REDACTED]	Richings Park Residents Association
[REDACTED]	Richmond Heathrow Campaign
[REDACTED]	Teddington Action Group (TAG)
[REDACTED]	Teddington Action Group (TAG)
[REDACTED]	The Windlesham Society
[REDACTED]	The Windlesham Society
[REDACTED]	British Airways
[REDACTED]	CAA
[REDACTED]	CAA
[REDACTED]	DfT
[REDACTED]	DfT
[REDACTED]	DfT
[REDACTED]	DfT
[REDACTED]	NATS
[REDACTED]	NATS
[REDACTED]	NATS
[REDACTED]	Heathrow
[REDACTED]	Heathrow
[REDACTED]	Heathrow
[REDACTED]	Heathrow
[REDACTED]	Surrey Heath Council
[REDACTED]	Forest Hill Society

Apologies

Name	Borough / Organisation
[REDACTED]	Wokingham Borough Council
[REDACTED]	Englefield Green Action Group (EGAG)
[REDACTED]	LAANC
[REDACTED]	Buckinghamshire Council
[REDACTED]	Surrey County Council

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British Airways
NATS
Heathrow
Heathrow
Heathrow
Heathrow

1 Welcome and Introduction

- 1.1 ██████████ Director of Communities and Sustainability at Heathrow, welcomed members and guest presenters to the virtual forum and noted apologies for absence.
- 1.2 ███ advised that no comments had been received on the previous meeting notes from 28 July, so these will now be marked as final. She went through the actions from the previous meeting as detailed below.
- 1.3 **Arrange a dedicated meeting on higher climb rates and collate previous questions for use in the meeting (1.3/1.5).** ███ confirmed that the meeting took place on 13 October and thanked those who attended. ██████████ had informed her that it was a constructive session where the departure noise study carried out by ██████████ (██████████) in his former role as independent technical advisor to the forum had been discussed at length. The group has agreed to meet again and will report back to the HCNF once they have concluded the sessions and identified some next steps. ███ asked for the next meeting to take place before the next HCNF meeting. ██████████
- 1.4 ██████████
██████████ from NATS would be presenting on this later in the meeting.
- 1.5 **Follow-up on early morning flight questions (4.2).** ███ advised that ███ and ██████████ had a productive conversation around night flights after the last forum, covering a range of different aspects, and that both were keen to work with DfT as part of the ongoing consultation process. ███ confirmed this and added that it had been useful to have a constructive conversation and gain a proper understanding of what could be done to improve things for overflown communities.
- 1.6 ██████████ noted that he had previously given a presentation proposing that there was enough capacity to move all of the early morning arrivals and pre-07:00 flights to after 07:00, and asked Heathrow to explore this further. ███ responded that Heathrow had made it clear in their response to the DfT night flight consultation that the capacity was not there but added that ███ would provide a more detailed response. ██████████
- 1.7 **Consider next steps for carbon discussion (5.3).** ███ advised that ██████████ ██████████ Head of Carbon Policy & Innovation at Heathrow, would be presenting on this later. She reiterated previous comments that the HCNF was a noise forum and not a carbon forum. However, following ██████████ presentation on the topic at the last meeting, it was considered appropriate to come back with an overview of Heathrow's net zero plans.
- 1.8 **Impacts on the upper atmosphere (5.5).** ██████████ advised that DfT were considering responses to the Jet Zero Consultation, including on non-CO₂ impacts from aviation, and they will publish their Jet Zero Strategy in due course. They will continue to keep non-CO₂ emissions from aviation under review and adjust policy as more evidence becomes available, including working closely with Manchester Metropolitan University to ensure they are basing their policy development on the latest available climate science.

2 Business update

- 2.1 **Passenger numbers.** ■ notified members that there had been some opening up of travel since the last HCNF, with a focus on getting the business back to friction-free travel for fully vaccinated passengers. There has been significant progress with the move to a single red list, changes to testing requirements and greater recognition of other countries' vaccination programmes, but there is still more to be done, particularly in reducing the cost of tests and simplifying the process for travellers. Heathrow welcomed 2.57m passengers in September, 60% down compared to September 2019 with a loss of around 4.2m passengers. Overall, the UK remains far behind Europe in traffic figures and bookings. The overall forecast for 2021 remains between 13m and 36m passengers, with the higher number reflecting the planned opening up of the US market in November. Daily traffic levels in September ranged between 645 and 798 movements, with a range of 704 to 862 so far in October, still a long way below pre-pandemic levels of 1,300 flight movements a day.
- 2.2 ■ asked if Heathrow was behind Europe because Heathrow has a lot of long-distance flights to Asia and the Far East. BC responded that Europe also served those destinations, but the UK's border policy has been different from other countries.
- 2.3 **Heathrow 2.0.** ■ advised members that a new version of the Heathrow 2.0 sustainability strategy was coming soon, covering areas such as noise, carbon, employment, diversity and skills. She added that Heathrow's Noise Action Plan (NAP) would cover the noise aspects in more detail and a revised plan was expected to be shared with members in January 2022.
- 2.4 **ICCAN B** ■ discussed the recent announcement that the Independent Commission on Civil Aviation Noise (ICCAN) was being disbanded. She commented that Heathrow had always supported the role of an independent and impartial advisory body on noise management, so it was disappointing that ICCAN was disbanded before it was given sufficient time to garner wider support across different stakeholders. She noted that Heathrow would continue to champion the value of an independent voice to provide impartial advice and looked forward to understanding more about the role of the CAA Environment Panel and DfT following this decision.
- 2.5 **Forums review update.** ■ reminded members that Heathrow was currently reviewing the structure of its engagement forums, a process which started last year and included consultation in January. She advised that the HCNF will evolve into a new group, the quarterly Noise and Airspace Community Forum (NACF). The NACF will have a similar structure to the HCNF, but in response to the consultation it will have an independent chair. The consultation also highlighted the importance of engagement with a variety of diverse groups and a clear code of conduct. She added that the NACF will feed up to the Council for the Independent Scrutiny of Heathrow Airport (CISHA) which will replace the Heathrow Community Engagement Board (HCEB) in January 2022 and take on its Airport Consultative Committee (ACC) role. She advised that the next steps were to work on the role specification and selection process for the independent chair, with changes expected to take place in early 2022.
- 2.6 ■ noted that the HCNF was not a decision-making body and asked if Heathrow would still be making the decisions. ■ advised that CISHA will put recommendations to Heathrow, but it will not have executive decision-making powers; those will remain with Heathrow.
- 2.7 ■ asked for more details about expanding and diversifying the membership under the new NACF structure. ■ advised that ■ would provide more details.

- 2.8 *[Following the meeting, ■ confirmed that Heathrow has an aspiration to refresh the membership as much as is possible within available resource, with the intention for this to be a shared vision with the successful independent chair applicant who would be equally involved in driving that change. He added that Heathrow wanted to establish a code of conduct that would provide guidelines around maximum numbers of participants from each group to ensure everyone has a seat at the table and a chance to be heard.]*

3 Community Presentations

- 3.1 ■ handed the meeting over to ■ to chair the community presentations. ■ explained that ■ and ■ would be giving presentations which had been informally discussed by most of the community group representatives and had their full approval. He appreciated that they may contain questions that could not be answered directly but hoped these would be properly addressed at the next meeting. The presentations are provided alongside the meeting notes.
- 3.2 **Airspace Modernisation Issues Arising from Workshop.** ■ gave a presentation on the potential impact of Performance Based Navigation (PBN), asking Heathrow, CAA and DfT explain how they will avoid overflowed communities in the UK suffering the disastrous outcomes experienced in the US. He asked who would be held accountable for the effects on the impacted population and asked Heathrow to state how it would address these issues.
- 3.3 **Business Case for Airspace Redesign Principles.** ■ requested a re-evaluation of the business case for airspace modernisation in the context of a reduced growth forecast. He noted that the DfT Jet Zero consultation had stated that airspace modernisation would allow the aviation industry to deliver a further £29 billion to the UK economy, but believed this figure was overstated by 30% and asked for the benefits to be requantified. He also requested an evaluation of the impact of PBN on affected communities.
- 3.4 ■ thanked both members for their presentations. She advised that some points around airspace modernisation may be covered later in the meeting, and reminded members of Heathrow's previous comments on PBN, explaining that PBN has been mandated and that Heathrow was looking at how to implement this in the best way for communities. She noted that some of the questions were for Heathrow and others were for DfT and CAA, so she invited relevant members to either respond now or contact Heathrow after the meeting to collate answers to the questions raised.
- ■ said she would be happy to take some of the questions away to discuss with Heathrow and CAA. She clarified that policy options were not based on the £29 billion forecast and the DfT would be doing their own cost-benefit analysis. ■ took an action to come back with answers on the questions raised. ■
- 3.6 ■ noted that at the last HCNF ■ had asked ■ of the Airspace Change Organisation Group (ACOG) if they had looked at the introduction of NextGen in the USA. ■ had said he would speak to ■ after the meeting to discuss the lessons learned from this and ■ asked if this had happened. ■ advised he had not spoken to ■ and ■ committed to ask ACOG for an update. ■
- 3.7 ■ asked Heathrow to consider restoring funding for the Forum's independent technical advisor so that he could be reinstated in January 2022. ■

4 Airspace change update

- 4.1 [REDACTED] gave an update on Heathrow' Airspace Change Proposals (ACP). The presentation is provided alongside the meeting notes. [REDACTED] explained that Heathrow's previous ACPs for the Compton route and Independent Parallel Approaches (IPA) had been withdrawn following the successful progression of Heathrow's broader ACP for airspace modernisation. The Slightly Steeper Approaches Trial ACP has also been withdrawn as this has now been approved for adoption as a permanent procedure.
- 4.2 [REDACTED] advised that Heathrow has been engaging with stakeholders on Design Principles for airspace modernisation through workshops and focus groups and welcomed stakeholder feedback, reminding members that all feedback should be submitted via the correct channels by emailing airspace@heathrow.com. A summary will be provided at the next round of workshops starting in November.
- 4.3 [REDACTED] asked if the Design Principles matrix had been sent to Elmbridge Council. [REDACTED] also asked if LAANC had been contacted about the workshops. *[These were both confirmed after the meeting.]*
- 4.4 [REDACTED] questioned how it was possible to arrive at Design Principles without an evidence base and reiterated that the issues he raised earlier should be addressed before going ahead. [REDACTED] explained that there would be a requirement to change legislation around PBN so that would involve consultation. She noted that the CAA was looking to reinstate the technical group and PBN would be a part of that. With regard to implementation of PBN in the US, while she agreed that lessons could always be learned internationally, she noted that just as SC had referred to Heathrow as being different from other communities, the US was also different, so it was not possible to make exact comparisons. She added that while PBN was seen as a large element of airspace modernisation, that did not mean that every route at every airport would involve concentration. She assured [REDACTED] that DfT were aware of the potential impacts of PBN and would look at what it meant for Heathrow specifically and also for the whole of the airspace modernisation programme.

5 eTBS Pairwise

- 5.1 [REDACTED] gave a presentation on eTBS Pairwise, the latest evolution of Time-Based Separation (TBS) for arrivals, to be implemented at Heathrow in Spring 2023. The presentation is provided alongside the meeting notes.
- 5.2 [REDACTED] explained that there were various factors that determine the spacing between arriving aircraft, such as turbulence from the aircraft in front (wake vortex), and that wind conditions could cause delays, environmentally unfriendly holding and cancellations. In 2015, Heathrow introduced TBS to change the requirements for spacing between aircraft from distance to time, resulting in a 62% reduction in headwind-related delay, 30% fewer go-arounds and a 115,000-minute reduction in holding delays. In 2018, enhanced TBS (eTBS) was introduced to take account of additional factors such as aircraft speed changes. However, he explained that the current spacing rules were still very generic, with aircraft types grouped resulting in some aircraft being over-separated. eTBS Pairwise will improve this by identifying safe separation distances between specific types of aircraft, resulting in the ability to land up to a maximum estimated additional 1.5 aircraft per hour to provide further operational resilience, less arrival holding, lower fuel burn and lower CO₂ emissions.

- 5.3 [REDACTED] said he understood how this would benefit airlines and airport operators, and also accepted that there may be some community benefit from reduced go-arounds and holding but asked if there was any chance that the improvements could be used to reduce night flying rather than squeezing more flights into the airport. [REDACTED] confirmed that the resilience benefits would support reduced delays throughout the day which would lead to a reduced risk of late runners. [REDACTED] asked if it was possible to quantify how many night flights might be reduced. [REDACTED] advised that more detailed analysis would be undertaken by NATS in the next phases of the project which would provide more information about the delay reductions and operational resilience benefits.
- 5.4 *[Following the meeting, [REDACTED] added that while it would help the airport recover more quickly from large events that cause airport-wide delays, it would not help with delays due to individual circumstances or events that occur for other reasons late in the day. She noted that the number of late runners had reduced over the years and that this was partly due to the original implementation of TBS and eTBS and the resilience benefits that they (and other initiatives) deliver. The deployment of eTBS Pairwise will support more resilient running of the existing schedule with reduced arrival delays and faster recovery from arrival queues, resulting in some late runners being prevented or brought in earlier.]*
- 5.5 [REDACTED] asked why the discussion was focussed on night flights. [REDACTED] responded that a question had been asked about potential benefits to the community. eTBS Pairwise supports operation resilience and so has the potential to help reduce the requirement for some night movements.
- 5.6 [REDACTED] asked if there were any noise reduction benefits as this was being presented at a noise forum. [REDACTED] acknowledged that there would be no change in the noise footprint associated with this concept but explained that it was being presented at the forum so that communities were aware of changes to operations, in line with Heathrow's commitment to keep communities updated.
- 5.7 [REDACTED] claimed that there had not been go-arounds over Harmondsworth village for the last 52 years, but they were now occurring frequently. [REDACTED] explained that there have always been missed approaches at Heathrow, typically one to three per day, normally because the aircraft in front is slow to vacate the runway. He advised her that he had designed the missed approach procedure 25 years ago and did not believe it had changed, but he said he would look into it for her. [REDACTED]
- 5.8 [REDACTED] asked if this technology could be used to raise the holding stacks from 7,000ft to 10,000ft. [REDACTED] replied that was a different issue related to airspace design which [REDACTED] was leading on.
- 5.9 *[Following the meeting, [REDACTED] explained that the eTBS project, and planned updates to eTBS pairwise, are about changing the separation between successive aircraft on final approach. eTBS will enable reduced arrival delays (which are largely borne out through stack holding) for the same level of traffic demand. However it will not change the altitudes of the holding stacks. Moving the stacks would require an airspace change proposal (ACP) under the CAP1616 process, including an assessment of the impact to flights between the stack and the final runway approach. Heathrow's airspace modernisation programme is now underway, and this programme will include the review and redesign of all routes into and out of Heathrow, including the location and altitudes of any future holding stacks. Heathrow does not have plans to make any changes to holding stacks prior to the introduction of its new airspace design through the airspace modernisation ACP.]*

6 Factors That Affect Departure Heights

- 6.1 [REDACTED] from NATS provided an overview of factors that can affect departure heights in response to a question from [REDACTED] at the last forum. He discussed the effect of aircraft type, load, atmosphere and route interactions on departure climbs. The presentation is provided alongside the meeting notes.
- 6.2 [REDACTED] suggested that raising the height of the holding stacks would help avoid some of the issues caused by route interactions. J [REDACTED] reiterated that this would be looked at as part of Heathrow's airspace modernisation programme and encouraged members to provide feedback to help shape the Design Principles for options development.

7 Net Zero Overview

- 7.1 [REDACTED] provided an overview of Heathrow's net zero plan in response to a presentation from PW at the last meeting. He noted that global industry momentum for net zero was growing and outlined solutions for taking the carbon out of flying. The presentation is provided alongside the meeting notes.
- 7.2 [REDACTED] raised questions about demand management and the payback period for Sustainable Aviation Fuel (SAF). [REDACTED] proposed that [REDACTED] and [REDACTED] schedule a discussion after the meeting, a summary of which would be provided when the actions are covered at the next meeting. [REDACTED]

8 AOB

- 8.1 No other business was tabled. [REDACTED] thanked members for joining the meeting and advised that the meeting notes would be circulated later than usual due to annual leave.

Date of next meeting

Wednesday 26 January 2022 (1:00pm – 3:30pm)

NOVEMBER

2021

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 03 November 2021 15:06
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

I can attend the workshop on Friday 26th November at 10.00am.

Many thanks,

[REDACTED]

From: [REDACTED]
Sent on: Wednesday, November 3, 2021 4:19:22 PM
To: [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 03 November 2021 16:14
To: And [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi [REDACTED]

I'd like to attend the 10am workshop on Monday 29 November.

Thanks

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent on: Wednesday, November 3, 2021 4:55:57 PM
To: [REDACTED]
CC: DD - Airspace <airspace@heathrow.com>
Subject: RE: [EXTERNAL] Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Public

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 03 November 2021 16:53
To: [REDACTED]
Subject: Re: [EXTERNAL] Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Please put me down for the workshop at 10am on Tues 30th Nov

Regards

[REDACTED]

From: [REDACTED]
Sent on: Wednesday, November 3, 2021 5:13:17 PM
To: [REDACTED]
CC: DD - Airspace [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 03 November 2021 17:11
To: [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi [REDACTED]

I would like to attend the workshop on Friday 26 November at 10am.

Thanks

[REDACTED]

From: [REDACTED]
Sent on: Wednesday, November 3, 2021 5:47:59 PM
To: [REDACTED]
CC: DD - Airspace <airspace@heathrow.com>
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 03 November 2021 17:27
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Please can you put me down for the Monday 29th Nov session at 10am.

Many thanks,

[REDACTED]

From: [REDACTED]
Sent on: Wednesday, November 3, 2021 5:48:16 PM
To: [REDACTED]
CC: DD - Airspace <airspace@heathrow.com>
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 03 November 2021 17:30
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

[REDACTED]

Thank you for the note re the Airspace workshops.
I would like to attend the 10am workshop on 30th November.
Look forward to receiving confirmation of my attendance.
Kind regards;

[REDACTED]

From: [REDACTED]
Sent on: Thursday, November 4, 2021 11:21:14 AM
To: [REDACTED]
CC: [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Public

Many thanks [REDACTED]

I have booked Ian in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 04 November 2021 11:01
To: [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Apologies [REDACTED]. Tuesday 30 November, 1000-1130 it is then please. Thank you!

Regards,

[REDACTED]

NATS

[REDACTED]
Technical Support Coordinator - Sustainable Operations Team

[REDACTED]
[REDACTED]

4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk



NATS PROTECTED

NATS Internal

From: [REDACTED]
Sent: 04 November 2021 09:15

To: [REDACTED]

Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Public

Hi [REDACTED]

We are running all six workshops regardless, so Ian just needs to choose which of those four slots he would like – and I will book him in.

Kind regards,

[REDACTED]

From: [REDACTED]

Sent: 04 November 2021 09:12

To: [REDACTED]

Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Good morning, [REDACTED]

At the moment, [REDACTED] availability for a Workshop is:

- Friday 26 November, 1300-1430
- Monday 29 November, 1300-1430
- Tuesday 30 November, 1000-1130 or 1300-1430

Thank you!

Regards,

[REDACTED]

NATS

[REDACTED]

Technical Support Coordinator - Sustainable Operations Team

[REDACTED]
[REDACTED]

4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk



From: [REDACTED]
Sent on: Thursday, November 4, 2021 9:51:33 AM
To: [REDACTED]
Subject: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop
Attachments: Heathrow's Design Principles Engagement_Feedback Matrix.docx (115.24 KB)

Classification: Internal

Dear LFF Member,

Thanks again to those of you who attended our recent workshops on Design Principles for our new airspace modernisation Airspace Change Proposal (ACP). This ACP is helping Heathrow play its part in delivering the Government's Airspace Modernisation Strategy – the national programme to modernise and upgrade the UK's airspace, which will involve the redesign of flight paths to and from our existing two runways. More details can be found on the Civil Aviation Authority's airspace change portal [here](#).

We hosted twelve online workshops in September and October, where with your help we developed an initial long list of suggested design principles based on discussions in the workshops. We emailed the matrix of potential design principles to you on 15 October and, if you haven't already responded, we would be grateful to receive your comments by Friday 12 November. The matrix is also attached to this email and you can email your completed matrix to airspace@heathrow.com.

Following analysis of all the feedback we receive, we will then create a single, concise list of the design principles we propose to use for this airspace change. We will present this list to you at a workshop later this month to give you an opportunity to share your views on it. Workshops will once again be held online and there are six workshops to choose from:

- Friday 26 November, 1000-1130 or 1300-1430
- Monday 29 November, 1000-1130 or 1300-1430
- Tuesday 30 November, 1000-1130 or 1300-1430

We would be grateful if you could respond to this email to let us know which workshop you would like to attend.

Kind regards,
[REDACTED]
Community Engagement Manager
[REDACTED]



Heathrow Airport
w: heathrow.com t: twitter.com/heathrowairport

From: [REDACTED]
Sent on: Thursday, November 4, 2021 1:19:33 PM
To: [REDACTED]
CC: DD - Airspace <airspace@heathrow.com>
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 04 November 2021 12:08
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Please could you include me for the Tuesday 30 November workshop at 10.00 am.

Thank you

[REDACTED]

From: [REDACTED]
Sent on: Thursday, November 4, 2021 3:56:50 PM
To: [REDACTED]
CC: DD - Airspace <airspace@heathrow.com>
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

I have booked you in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

█

From: █
Sent: 04 November 2021 14:36
To: █
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi █

Thanks for this. Can I book in for 10am on Monday 29th November please?

Regards

█

█
Coordinator

█
█

www.hacan.org.uk



[Redacted]

From:

[Redacted]

Sent:

05 November 2021 15:10

To:

[Redacted]

Cc:

Subject:

Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Attachments:

Heathrow's Design Principles Engagement_Feedback Matrix.docx

Importance:

High

Bcc:

[Redacted]

Bcc:



Classification: Public

Dear Colleague,

Thank you if you were able to attend our recent workshops on Design Principles for our new airspace modernisation Airspace Change Proposal (ACP). This ACP is helping Heathrow play its part in delivering the Government's Airspace Modernisation Strategy – the national programme to modernise and upgrade the UK's airspace, which will involve the redesign of flight paths to and from our existing two runways. More details can be found on the Civil Aviation Authority's airspace change portal [here](#).

We hosted twelve online workshops in September and October, where with your help we developed an initial long list of suggested design principles based on discussions in the workshops. We emailed the matrix of potential design principles to you on 15 October and, if you haven't already responded, we would be grateful to receive your comments by Friday 12 November. The matrix is also attached to this email and you can email your completed matrix to airspace@heathrow.com.

Following analysis of all the feedback we receive, we will then create a single, concise list of the design principles we propose to use for this airspace change. We will present this list to you at a workshop later this month to give you an opportunity to share your views on it. Workshops will once again be held online and there are six workshops to choose from:

- Friday 26 November, 1000-1130 or 1300-1430
- Monday 29 November, 1000-1130 or 1300-1430
- Tuesday 30 November, 1000-1130 or 1300-1430

We would be grateful if you could respond to this email to let us know which workshop you would like to attend.

Kind Regards,


Communities and Sustainability Team Admin


Heathrow Airport
The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: heathrow.com t: twitter.com/heathrowairport

[REDACTED]

From: [REDACTED]
Sent: 05 November 2021 15:57
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Thank you for the email invite for the workshops

Haringey Council will not be attending but we will continue to monitor the consultations

Kind regards

[REDACTED]
Assistant Director, Planning, Building Standards & Sustainability
Housing, Regeneration & Planning
[REDACTED]

Haringey Council, 1st floor, 40 Cumberland Road, Wood Green, London, N22 7SG

[REDACTED]
www.haringey.gov.uk

[REDACTED]

From: [REDACTED]
Sent: 05 November 2021 15:12
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi [REDACTED]

I can do the 26th or 30th, either time slot on those days is fine.

Kind Regards

[REDACTED]

[REDACTED]

Principal Policy Officer (Strategic Transport)

Environment, Housing and Neighbourhoods Directorate
London Borough of Sutton
Civic Offices, St Nicholas Way
Sutton SM1 1EA

[REDACTED]

www.sutton.gov.uk

Follow us on twitter [@SuttonCouncil](https://twitter.com/SuttonCouncil)

[REDACTED]

From: [REDACTED]
Sent: 05 November 2021 16:25
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi [REDACTED]

The 30th pm is best with me.

Kindest regards

[REDACTED]
EH Pollution Manager (Air Quality)
Regulatory Services Partnership
Serving the London Boroughs of Merton, Richmond upon Thames and Wandsworth

Civic Centre, London Road, Morden SM4 5DX

[REDACTED]
[REDACTED]



From: [REDACTED]
Sent on: Friday, November 5, 2021 3:31:07 PM
To: [REDACTED]
CC: [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks P [REDACTED]

I have booked yourself and [REDACTED] r in. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 05 November 2021 15:27
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Could you add [REDACTED] and myself please to attend your workshop on **Monday 29 November at 10:00am.**

We both represent Richmond Heathrow Campaign.

We will respond to the matrix of design principles by 12 November.

Grateful if you could confirm the two places on 29 Nov.

Kind regards

[REDACTED]

[REDACTED]

Chair, Richmond Heathrow Campaign

[REDACTED]

From: [REDACTED]
Sent: 08 November 2021 10:12
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Public

Dear [REDACTED]

I have put you down as attending on 30th November at 10:00. Invite will follow nearer the time.

Kind regards,

[REDACTED]
Communities and Sustainability Team Admin
[REDACTED]

Heathrow Airport
The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: [heathrow.com](https://www.heathrow.com) t: twitter.com/heathrowairport



From: [REDACTED]
Sent: 07 November 2021 12:01
To: [REDACTED]
Subject: Re: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

[REDACTED]
My preference is Tuesday 30th November at 10.00 am.
[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: 08 November 2021 09:56
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Dear [REDACTED]

I have put you down to attend on Friday 26 November, 1000-1130. Invite will follow nearer the time.

Kind regards,

[REDACTED]
Communities and Sustainability Team Admin
[REDACTED]

Heathrow Airport
The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: [heathrow.com](https://www.heathrow.com) t: twitter.com/heathrowairport



From: [REDACTED]
Sent: 07 November 2021 16:31
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi,

I can attend Friday 26 November, 1000-1130

Thanks

[REDACTED]
Transport Strategy Manager
Place, Planning & Regeneration
Bracknell Forest Council

[REDACTED]

From: [REDACTED]
Sent: 08 November 2021 10:05
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Public

Dear [REDACTED]

Thank you for your email below. I have put you down to attend on 29th Nov at 13:00. Invite will follow nearer the time.

Kind regards,

[REDACTED]
Communities and Sustainability Team Admin
m: [REDACTED]

Heathrow Airport
The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: heathrow.com t: twitter.com/heathrowairport



From: [REDACTED]
Sent: 08 November 2021 08:21
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

I would like to attend the session on Monday 29 November at 13:00.

Many thanks,

[REDACTED]
Principal Planner
Planning Policy

[REDACTED]

From: [REDACTED]
Sent: 09 November 2021 15:27
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Public

Hi [REDACTED]

I have put you down as attending on 26th Nov at 10am. Invite will follow nearer the time.

Kind regards,
[REDACTED]

From: [REDACTED]
Sent: 09 November 2021 10:55
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hello [REDACTED]

My preference would be for the morning slot on Friday 26th. IF that's not available, then Tuesday morning or Monday morning the following week.

Thanks,
[REDACTED]

[REDACTED]
Principal environmental officer
The Economy Department
Hammersmith & Fulham Council
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: 09 November 2021 15:12
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Internal

Dear [REDACTED]

I have put you down as attending on 29th Nov at 1pm. Invite will follow nearer the time.

Kind regards,
[REDACTED]

From: [REDACTED]
Sent: 09 November 2021 15:06
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear sir / Madam

Thank you for your email invite. I confirm that I can attend Monday 29 November at 1300-1430

Thanks

[REDACTED]
Principal Infrastructure and Delivery Officer
Hertsmere Borough Council | Civic Offices | Elstree Way | Borehamwood | Herts | WD6 1WA

From: [REDACTED]
Sent on: Tuesday, November 9, 2021 4:52:12 PM
To: [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Hi [REDACTED]

Apologies – a typo on my part – I have double checked the booking log and I did put you down for Monday 29th at 10:00am.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 09 November 2021 16:30
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Monday 29th 😊

Sent from my iPhone

On 9 Nov 2021, at 16:00, A [REDACTED]

Classification: Internal

Many thanks [REDACTED]

I have booked you in for Monday 30 November at 10:00am. The Airspace team will be in touch closer to the date with details on how to join.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 09 November 2021 15:57
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi [REDACTED] Monday a.m. is probably best as I can then concentrate on CAP1616 response on Tuesday closing date.

[REDACTED]

Sent from my iPhone

On 9 Nov 2021, at 14:20, [REDACTED]

Classification: Internal

Hi [REDACTED]

Thanks for your response and your subsequent email with the feedback on the design principles matrix.

You only need to attend one session, do you have a preference between Monday and Tuesday?

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 08 November 2021 19:23
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi [REDACTED]

I can make Monday and Tuesday, with morning preferred.

Kind Regards,

[REDACTED]

From: [REDACTED]
Sent on: Tuesday, November 9, 2021 4:53:47 PM
To: [REDACTED]
CC: DD - Airspace <airspace@heathrow.com>
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

Best Regards

[Redacted]

Environmental Protection Lead Practitioner
Environment Protection Team
Place Directorate
London Borough of Ealing
Perceval House
14/16 Uxbridge Road
London W5 2HL

[Redacted]

[Redacted]

[REDACTED]

From: [REDACTED]
Sent: 11 November 2021 11:22
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Public

Dear [REDACTED]

I have put you down as attending on 26th Nov at 10am. Invite will follow nearer the time.

Kind regards,
[REDACTED]

From: [REDACTED]
Sent: 11 November 2021 10:37
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

I would be grateful if I could attend the workshop on 26 November from 10am – 11:30am.

Regards,
[REDACTED]

[REDACTED]
Principal Planning Officer (Policy)
Waverley Borough Council

T
[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: 11 November 2021 12:23
To: [REDACTED]
Subject: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal
Attachments: Heathrow's Design Principles Engagement_Feedback Matrix.docx

Classification: Internal

Hi [REDACTED]

Thank you if you were able to attend our recent workshops on Design Principles for our new airspace modernisation Airspace Change Proposal (ACP). This ACP is helping Heathrow play its part in delivering the Government's Airspace Modernisation Strategy – the national programme to modernise and upgrade the UK's airspace, which will involve the redesign of flight paths to and from our existing two runways. More details can be found on the Civil Aviation Authority's airspace change portal [here](#).

We hosted twelve online workshops in September and October, where with your help we developed an initial long list of suggested design principles based on discussions in the workshops. We emailed the matrix of potential design principles to you on 15 October and, if you haven't already responded, we would be grateful to receive your comments by Friday 12 November. The matrix is also attached to this email and you can email your completed matrix to airspace@heathrow.com.

Following analysis of all the feedback we receive, we will then create a single, concise list of the design principles we propose to use for this airspace change. We will present this list to you at a workshop later this month to give you an opportunity to share your views on it. Workshops will once again be held online and there are six workshops to choose from:

- Friday 26 November, 1000-1130 or 1300-1430
- Monday 29 November, 1000-1130 or 1300-1430
- Tuesday 30 November, 1000-1130 or 1300-1430

We would be grateful if you could respond to this email to let us know which workshop you would like to attend.

Kind Regards

[REDACTED]
Senior Stakeholder Engagement Manager
[REDACTED]



Heathrow Airport
w: heathrow.com t: twitter.com/heathrowairport

[REDACTED]

From: [REDACTED]
Sent: 11 November 2021 12:22
To: [REDACTED]
Subject: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal
Attachments: Heathrow's Design Principles Engagement_Feedback Matrix.docx

Classification: Internal

Dear [REDACTED]

Thank you if you were able to attend our recent workshops on Design Principles for our new airspace modernisation Airspace Change Proposal (ACP). This ACP is helping Heathrow play its part in delivering the Government's Airspace Modernisation Strategy – the national programme to modernise and upgrade the UK's airspace, which will involve the redesign of flight paths to and from our existing two runways. More details can be found on the Civil Aviation Authority's airspace change portal [here](#).

We hosted twelve online workshops in September and October, where with your help we developed an initial long list of suggested design principles based on discussions in the workshops. We emailed the matrix of potential design principles to you on 15 October and, if you haven't already responded, we would be grateful to receive your comments by Friday 12 November. The matrix is also attached to this email and you can email your completed matrix to airspace@heathrow.com.

Following analysis of all the feedback we receive, we will then create a single, concise list of the design principles we propose to use for this airspace change. We will present this list to you at a workshop later this month to give you an opportunity to share your views on it. Workshops will once again be held online and there are six workshops to choose from:

- Friday 26 November, 1000-1130 or 1300-1430
- Monday 29 November, 1000-1130 or 1300-1430
- Tuesday 30 November, 1000-1130 or 1300-1430

We would be grateful if you could respond to this email to let us know which workshop you would like to attend.

Kind Regards

[REDACTED]
Senior Stakeholder Engagement Manager
[REDACTED]



Heathrow Airport
w: heathrow.com t: twitter.com/heathrowairport

From: [REDACTED]
Sent on: Friday, November 12, 2021 10:05:47 AM
To: [REDACTED]
BCC: [REDACTED]
Subject: Heathrow Airspace Modernisation: Workshop invite
Attachments Pre_Phase 2 Workshop_Engagement_Info_FINAL.pdf (1.9 MB), Heathrow's
: Design Principles Engagement_Feedback Matrix.docx (112.16 KB)

Dear Sir/Madam,

I am writing to let you know about a new Airspace Change Proposal (ACP) we have begun at Heathrow Airport, which will help us to play our part in delivering the Government's Airspace Modernisation Strategy - the national programme to modernise and upgrade the UK's airspace. This airspace change proposal will involve the re-design of flight paths to and from our existing two runways. More details can be found on the Civil Aviation Authority's airspace change portal [here](#).

To make this change, we are going through the CAA's airspace change process, known as CAP1616. The process places great importance on engaging with a wide range of stakeholders, and as such, we would like to discuss our proposals with you at this early stage and gather your views. We have attached a document that summarises the project and the process we are following.

At this first stage in the process, we are required to engage with stakeholders to develop and seek feedback on a proposed list of "design principles" – a list of high-level criteria that the proposed airspace design should meet. Our first phase of engagement took place in September/October when we held 12 online workshops with some of our stakeholders. We collected thoughts on a range of topics and developed an initial long list of potential design principles. The list is attached and we would be grateful for any comments you would like to provide on this list by Monday 22 November. You can email your completed matrix to airspace@heathrow.com.

Following analysis of all the feedback we receive, we will then create a single, concise list of the design principles we propose to use for this airspace change. We will present this list to you at a workshop later this month to give you an opportunity to share your views on it. Workshops will be held online and there are 6 workshops to choose from:

- Friday 26 November, from 1000-1130 or 1300-1430
- Monday 29 November, from 1000-1130 or 1300-1430
- Tuesday 30 November, from 1000-1130 or 1300-1430

Please could you respond to this email to let us know which workshop you would like to attend?

Kind regards,

[REDACTED]
Stakeholder Engagement Lead for Airspace Modernisation



The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

[REDACTED]

From: [REDACTED]
Sent: 12 November 2021 13:57
To: [REDACTED]
Subject: Heathrow Airspace Modernisation: Workshop invite
Attachments: Pre_Phase 2 Workshop_Engagement_Info_FINAL.pdf; Heathrow's Design Principles Engagement_Feedback Matrix.docx

Dear [REDACTED]

Thank you for your email and for providing contact details for Hounslow and Brentford Friends of the Earth. Please could you also pass on this email to any other Friends of the Earth groups who might have an interest in our plans?

I made contact to let you know about a new Airspace Change Proposal (ACP) we have begun at Heathrow Airport, which will help us to play our part in delivering the Government's Airspace Modernisation Strategy - the national programme to modernise and upgrade the UK's airspace. This airspace change proposal will involve the re-design of flight paths to and from our existing two runways. More details can be found on the Civil Aviation Authority's airspace change portal [here](#).

To make this change, we are going through the CAA's airspace change process, known as CAP1616. The process places great importance on engaging with a wide range of stakeholders, and as such, we would like to discuss our proposals with you at this early stage and gather your views. We have attached a document that summarises the project and the process we are following.

At this first stage in the process, we are required to engage with stakeholders to develop and seek feedback on a proposed list of "design principles" – a list of high-level criteria that the proposed airspace design should meet. Our first phase of engagement took place in September/October when we held 12 online workshops with some of our stakeholders. We collected thoughts on a range of topics and developed an initial long list of potential design principles. The list is attached and we would be grateful for any comments you would like to provide on this list by Monday 22 November. You can email your completed matrix to airspace@heathrow.com.

Following analysis of all the feedback we receive, we will then create a single, concise list of the design principles we propose to use for this airspace change. We will present this list to you at a workshop later this month to give you an opportunity to share your views on it. Workshops will be held online and there are 6 workshops to choose from:

- Friday 26 November, from 1000-1130 or 1300-1430
- Monday 29 November, from 1000-1130 or 1300-1430
- Tuesday 30 November, from 1000-1130 or 1300-1430

Please could you respond to this email to let us know which workshop you would like to attend?

Kind regards,

[REDACTED]
Stakeholder Engagement Lead for Airspace Modernisation



The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: heathrow.com/airspacemodernisation

From: [REDACTED]
Sent: 12 November 2021 13:18
To: [REDACTED]

Cc: [REDACTED]

Subject: Re: Airspace Change - New enquiry for Hounslow and Brentford Friends of the Earth

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hello [REDACTED]

Thank you for contacting us. We would like to participate in the workshop on Airspace Change. Please contact this email address with details. I am the likely representative also contactable at the cc address.

Regards

[REDACTED]

Coordinator Hounslow & Brentford Friends of the Earth Local Group

----- Original Message -----

[REDACTED]

Sent: Wednesday, 10 Nov, 2021 At 17:28

Subject: New enquiry for Hounslow and Brentford Friends of the Earth

Hello,

I am writing to let you know about a new Airspace Change Proposal (ACP) we have begun at Heathrow Airport, which will help us to play our part in delivering the Government's Airspace Modernisation Strategy - the national programme to modernise and upgrade the UK's airspace.

This project will involve the redesign of flight paths to and from Heathrow and we are keen to hear your views on this. Please could you provide me with an email address so that I can send you more information and invite you to join a workshop? Many thanks.

[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: 12 November 2021 10:16
To: [REDACTED]
Cc: 'DD - Airspace'
Subject: Heathrow Airspace Modernisation: Workshop invite
Attachments: Pre_Phase 2 Workshop_Engagement_Info_FINAL.pdf; Heathrow's Design Principles Engagement_Feedback Matrix.docx

Dear [REDACTED]

I am writing to let you know about a new Airspace Change Proposal (ACP) we have begun at Heathrow Airport, which will help us to play our part in delivering the Government's Airspace Modernisation Strategy - the national programme to modernise and upgrade the UK's airspace. This airspace change proposal will involve the re-design of flight paths to and from our existing two runways. More details can be found on the Civil Aviation Authority's airspace change portal [here](#).

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- Tuesday 30 November, from 1000-1130 or 1300-1430

Please could you respond to this email to let us know which workshop you would like to attend?

Kind regards,

[REDACTED]
Stakeholder Engagement Lead for Airspace Modernisation



The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: [heathrow.com/airspacemodernisation](https://www.heathrow.com/airspacemodernisation)

[REDACTED]

From: [REDACTED]
Sent: 12 November 2021 10:14
To: [REDACTED]
Cc: 'DD - Airspace'
Subject: Heathrow Airspace Modernisation: Workshop invite
Attachments: Pre_Phase 2 Workshop_Engagement_Info_FINAL.pdf; Heathrow's Design Principles Engagement_Feedback Matrix.docx

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Please could you respond to this email to let us know which workshop you would like to attend?

Kind regards,

[REDACTED]
Stakeholder Engagement Lead for Airspace Modernisation



The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: [heathrow.com/airspacemodernisation](https://www.heathrow.com/airspacemodernisation)

[REDACTED]

From: [REDACTED]
Sent: 12 November 2021 10:13
To: [REDACTED]
Cc: 'DD - Airspace'
Subject: Heathrow Airspace Modernisation: Workshop invite
Attachments: Pre_Phase 2 Workshop_Engagement_Info_FINAL.pdf; Heathrow's Design Principles Engagement_Feedback Matrix.docx

Dear [REDACTED]

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- Tuesday 30 November, from 1000-1130 or 1300-1430

Please could you respond to this email to let us know which workshop you would like to attend?

Kind regards,

[REDACTED]
Stakeholder Engagement Lead for Airspace Modernisation



The Compass Centre, Nelson Road
Hounslow, Middlesex, TW6 2GW

w: [heathrow.com/airspacemodernisation](https://www.heathrow.com/airspacemodernisation)

[REDACTED]

From: [REDACTED]
Sent: 17 November 2021 11:37
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Public

Dear [REDACTED]

Thank you for your email.

I can confirm that you have now been added to attend the Phase2 workshop on Monday 29 November, 1000-1130.

A formal invite will soon be sent.

Kind Regards

[REDACTED]
Senior Stakeholder Engagement Manager
m: [REDACTED]



Heathrow Airport
w: heathrow.com t: twitter.com/heathrowairport

From: Gr [REDACTED]
Sent: 17 November 2021 11:08
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi [REDACTED]
Thank you for the information.

I can attend the Phase2 workshop on Monday 29 November, 1000-1130.

Many Thanks,

[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: 17 November 2021 21:32
To: [REDACTED]
Cc: [REDACTED]
Subject: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Public

Dear [REDACTED]

Many thanks for your email.

This is to confirm that you are now down to attend the workshop on 29th November 2021 – 10:00 – 11:30.

A calendar invite with joining instructions will soon be sent ahead of the workshop.

If you have any questions, do feel free to let me know.

Kind Regards

[REDACTED]
Senior Stakeholder Engagement Manager
[REDACTED]



Heathrow Airport
w: heathrow.com t: twitter.com/heathrowairport

From: [REDACTED]
Sent: 17 November 2021 16:50
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Many thanks for the invitation to join a second workshop. Would it be possible to attend on 29 Nov 10-11.30, please?

Many thanks,
[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: 18 November 2021 15:21
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Internal

Hi [REDACTED]

I hope all is well.

Thanks for confirming your attendance to the workshop. Just to confirm you have now been added to the attendance list for the workshop on Tuesday 30 November 10 – 11.30am.

A calendar invite will be sent to you ahead of the workshop but if you have any question in the meantime, do feel free to let me know.

Kind Regards

[REDACTED]
Senior Stakeholder Engagement Manager
[REDACTED]



Heathrow Airport
w: [heathrow.com](https://www.heathrow.com) t: twitter.com/heathrowairport

From: [REDACTED]
Sent: 18 November 2021 15:18
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Thank you for your email. Would it be possible to put myself down for the Tuesday 30th November Morning Workshop?

Kind Regards,

[REDACTED]
Spatial Planning Officer

[REDACTED]

From: [REDACTED]
Sent: 18 November 2021 13:48
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Public

Hi [REDACTED]

I hope all is well.

Thanks for confirming your attendance to the workshop. Just to confirm you have now been added to the attendance list for the workshop on Friday 26 November 10 – 11.30am.

A calendar invite will be sent to you ahead of the workshop but if you have any question in the meantime, do feel free to let me know.

Kind Regards

[REDACTED]
Senior Stakeholder Engagement Manager
[REDACTED]



Heathrow Airport
w: [heathrow.com](https://www.heathrow.com) t: twitter.com/heathrowairport

From: [REDACTED]
Sent: 18 November 2021 09:23
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Please can I sign up for the session on the morning of 26th November.

Thank you
[REDACTED]

[REDACTED]
Principal Planning Officer
Spatial Planning Team, Surrey County Council

My working days are Tuesday-Friday

From: [REDACTED]
Sent on: Thursday, November 18, 2021 9:24:04 AM
To: [REDACTED]
CC: [REDACTED]
Subject: RE: Workshop on 26 November 10 - 11.30

Classification: Internal

Many thanks [REDACTED]

I have booked you in for Friday 26 November 10:00-11:30. The Airspace team will be in touch closer to the date with details on how to join the online meeting.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 17 November 2021 20:35
To: [REDACTED]
Subject: Workshop on 26 November 10 - 11.30

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

If there is space available for the Workshop on 26 November at 10, ending at 11.30, I would like to attend it.

Thank you.

[REDACTED]

[REDACTED] PLANE HELL ACTION

<https://planehellaction.org.uk/>

From: [REDACTED]
Sent on: Friday, November 19, 2021 5:41:02 PM
To: [REDACTED]
CC: DD - Airspace [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Many thanks [REDACTED]

I have booked you in for Monday 29 November 13:00-14:30. The Airspace team will be in touch closer to the date with details on how to join the online meeting.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 19 November 2021 17:36
To: [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

[REDACTED]

Please could I attend the Monday 29th session 1-2.30pm,

Thks

[REDACTED]

From: [REDACTED]
Sent on: Tuesday, November 23, 2021 9:49:41 AM
To: [REDACTED]
Subject: Phase 2 Airspace DP workshops - pre-read

Classification: Internal

Hi [REDACTED]

Apologies for not following up again sooner and potentially the short notice – my memory is failing me as I'm pretty sure I sent you a note about this last week but now I can't seem to find it, but then I tend to regularly purge my sent items folder.

As you know the Phase 2 Design Principles workshops start on Friday. We're not sending out any pre-reading material to stakeholders like we did in Phase 1, but we wanted to reach out to you and see if you'd like a bespoke session to go over the slides we plan to present to attendees and get your feedback.

How are you placed for am/pm tomorrow or Thursday?

Kind regards,

[REDACTED]

Operational Impacts & Community Engagement Lead ✉
Carbon, Communications & Communities



Heathrow Airport
w: heathrow.com t: twitter.com/heathrowairport

From: [REDACTED]
Sent on: Thursday, November 25, 2021 11:32:26 AM
To: [REDACTED]
CC: DD - Airspace [REDACTED]
Subject: RE: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Classification: Internal

Hi [REDACTED]

I have moved you to the Monday 29 November session, 10:00 to 11:30.

You have probably already received a link to join the session you were originally booked for; I will ask the Airspace team to forward you a new link for 29 Nov.

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 25 November 2021 09:22
To: [REDACTED]
Subject: Re: Invitation: Airspace Modernisation Airspace Change Proposal - Phase 2 workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Morning [REDACTED]

I have a slight preference for the morning session starting at 10am.

Look forward to receiving joining invite.

Many thanks and again apologies for change of date.

[REDACTED]

Sent from my iPad

An aerial photograph of Heathrow Airport at dusk. The terminal buildings are illuminated from within, and the sky is a mix of orange, pink, and blue. In the foreground, a large aircraft is parked on the tarmac, and various ground service vehicles are visible. The overall scene is a busy airport environment during the twilight hours.

Airspace Modernisation: Airspace Change Proposal

Design Principles Engagement: Phase 2 Workshop



Objectives of the workshop

- 1 To share with you examples of the feedback we have received from our stakeholders
- 2 To share our proposed Design Principles and explain how we developed them, based on your suggestions
- 3 To inform you of the next steps in this Airspace Change Proposal (ACP)



Re-cap: what is a design principle?

The CAA's CAP1616 process requires us to develop design principles to be applied to the airspace change design. Design principles help our airspace designers to create and compare different design options when we reach Stage 2 of the process.

The design principles encompass the **safety, environmental and operational criteria and the strategic policy objectives** that we seek to achieve through the airspace change.

Design principles can be grouped into broad themes such as:

- Safety
- Policy
- Noise
- Environment
- Technology
- Operational Performance

Prioritisation

Discussions aim to identify common priorities amongst stakeholders, although the CAA acknowledges that unanimous agreement on the principles is unlikely: some of the design principles may contradict one another and some may be prioritised over others.

Re-cap: how are design principles used?

The design options are only evaluated against the design principles in Stage 2A. After that, all shortlisted options are assessed against policy

However, design principles provide a framework for assessing design options at the earliest stage of the design process and ensuring that local priorities are taken into account

Heathrow is aware that you, and other stakeholders, have provided us with information and feedback on some of our previous ACPs. However, each ACP is different and directly applying design principles from a different airspace change (for example, one of Heathrow's previous ACPs) may not be appropriate. Also, priorities and opinions may have changed since Heathrow previously engaged with stakeholders.

The design principles are an opportunity to combine local context with technical considerations for the airspace change. It is important that these elements are considered in the context of each specific airspace change proposal.

Summary of Phase 1 Engagement

Heathrow's design principles engagement has been split into two phases. Phase 1 was our initial engagement with community and industry stakeholders.

We held 12 workshops between 27 September – 6 October 2021 to discuss design principles that were important to stakeholders for this ACP.

The outcome of these workshops was a long list of design principles **suggested by stakeholders**, which was distributed to all stakeholders invited to the workshops, even if they were unable to attend.

This list was also emailed to industry stakeholders, such as NATMAC, FLOPSC, adjacent airports and Heathrow airlines.

All stakeholders were given time to consider the long list of suggested design principles and provide feedback.

HEATHROW'S AIRSPACE MODERNISATION ACP

Principles suggested by Stakeholders

Name..... Organisation/Representing.....

Proposed by	Proposed Principle	Strongly Agree	Agree	Neutral / Agree not Disagree	Disagree	Strongly Disagree	Further comments
Safety							
S1	Workshop 1, 8	Future airspace change must be safe for all stakeholders, including those on the ground					
S2	Workshop 2	Airspace design must be safe					
S3	Workshop 6	Avoid modifying dense populations, to minimise risk to those on the ground					
S4	Workshops 6, 7, 11	Must be safe, but does not exceed existing safety standards to an extent that it has a detrimental impact on other benefits					
Policy							
P1	CAA	Subject to the overriding design principle of maintaining a high standard of safety, the highest priority principle of this airspace change that cannot be discounted is that it remains in accordance with the CAA's published Airspace Modernisation Strategy (CASP 1711) and any current or future plans anticipated with it.					
P2	Workshop 8	Future airspace change should take into account local plans and policies regarding local air quality, the climate emergency (London Plan)					

Focus Groups – summary of feedback

4 Public Focus Groups (independently facilitated)

- Were most concerned about the environment and **limiting CO₂ emissions**.
- These stakeholders thought we should minimise the numbers of people **newly affected** by aircraft noise: they felt it would be unfair to inflict noise upon people who are not used to it and potentially chose to live somewhere quiet.
- They also recognised the benefits of **sharing** noise, rather than concentration.

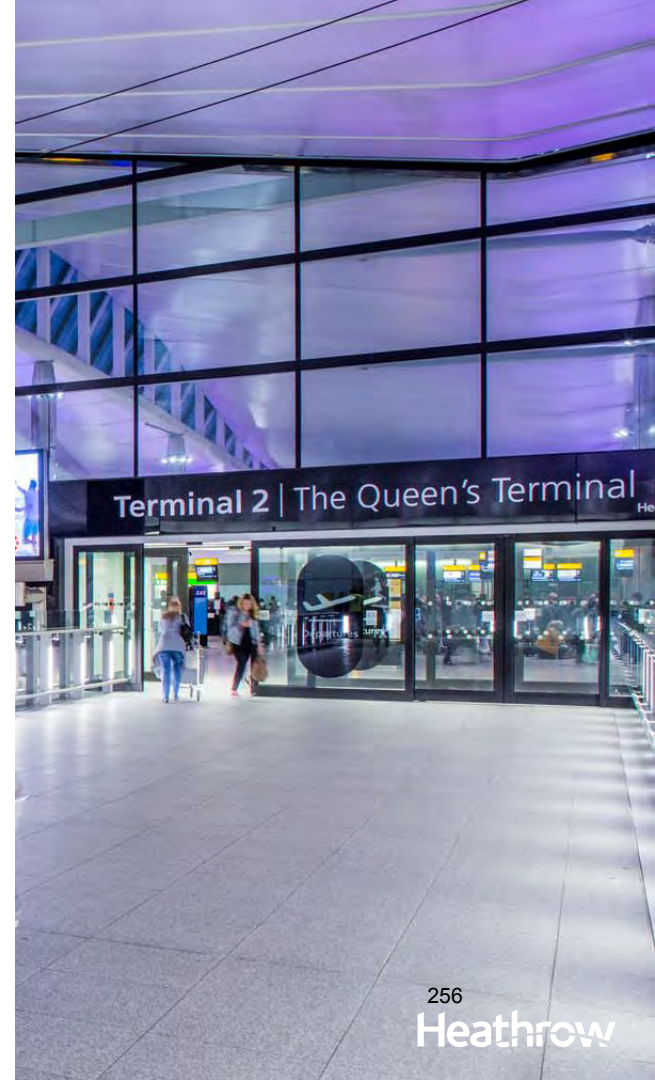
3 School Focus Groups (ages 16-18)

- Felt strongly that our core principle (after safety) must be **limiting CO₂ emissions**.
- They recognised concerns about noise (and many of them were affected by noise today) but considered **climate change** to be a greater issue than any other.
- In terms of noise, they generally felt that we should **minimise the total number of people affected** and had some concerns about sharing noise via respite routes, since this would mean more people impacted.

Phase 2 Engagement

- We will now review each theme and share some examples of the feedback received and of additional design principles that were suggested after the workshops.
- We will then give a brief summary of how we have analysed the feedback alongside existing policy to create our proposed design principles for this airspace change.
- **NOTE** that this process was not a referendum: we invited feedback from more Community Noise Groups than from stakeholders with other interests (industry, environment) which is reflected in the feedback on certain topics.
 - We recognise the trade-offs present in the design principle themes and a degree of balance will be required when seeking the optimal design.
- We are unable to share all the feedback we received during this workshop and how we have utilised it, due to time constraints. However, all this information will be included in our design principles submission to the CAA which will be published on the CAA portal.

Any Questions?



Examples of Feedback

Design Principles Matrix - Safety



Safety			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
S1	Workshops 1, 8	Future airspace change must be safe for all stakeholders, including those on the ground	21	11	1	0	0
S2	Workshop 2	Airspace design must be safe	19	12	1	0	0
S3	Workshop 8	Avoid overflying dense populations, to minimise risk to those on the ground	5	13	11	2	1
S4	Workshops 6, 7, 11	Must be safe, but does not exceed existing safety standards to an extent that it has a detrimental impact on other benefits	10	18	4	1	1

Community Groups:

- Safety standards should consider those on the ground as well as those in the air
- Safety should not be used as an "excuse" for doing something that would have negative effects for local communities

Local Authorities:

- It will be impossible to avoid [overflying] dense populations
- Airspace design must be entirely safe: should not refer to 'existing safety standards'
- There must be no decrease in the current levels of safety

Industry

- Safety principles do not need to specify ground or air, an option would not progress if it was less safe [for any stakeholder] than today

Safety



Examples of additional ‘Safety’ design principles suggestions received:

- Must be safe but should minimise detrimental impact on other objectives (balance is needed)
- Ensure safety for other users in the surrounding airspace
- Resilience of use of PBN satellite navigation must be demonstrated for safe use in all weather conditions, and from dangers posed by loss of satellites (space junk/political action), cyber-attack or power failure
- Sufficient manned air traffic control expertise must remain
- While maintaining a high standard of safety, the highest priority principles of this airspace change should be improvements in airspace performance (to include carbon, air quality, noise and service performance) with no net decreases in performance across any of these areas.

Our proposed Safety Design Principle:

- Be safe for all stakeholders

Our rationale:

- Safety standards apply to the safety of all (those on the ground as well as those in the air).
- Heathrow is required to articulate the costs and benefits of options within our assessment of options at Stages 2 and 3 of the CAP1616 process: if enhancing safety was to result in degrading other benefits, this would be captured in those assessments, and Heathrow would be open and transparent about this.

Design Principles Matrix - Policy



Policy			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
P1	CAA	Subject to the overriding design principle of maintaining a high standard of safety, the highest priority principle of this airspace change that cannot be discounted is that it remains in accordance with the CAA's published Airspace Modernisation Strategy (CAP 1711) and any current or future plans associated with it.	6	5	13	5	3
P2	Workshop 8	Future airspace change should take into account local plans and policies regarding local air quality, the climate emergency [London Plan]	15	13	4	0	1

Examples of Feedback

Community Groups

- Consideration of health impacts of aircraft noise should be the highest priority
- The Airspace Modernisation Strategy should be clearer on priorities between carbon and noise reductions
- Use of local plans should consider that communities with local plans/policies could have an unfair advantage. [over those communities which do not]

Local Authorities

- Accordance with other policies does not appear factored in (Noise Policy Statement for England etc)
- Many boroughs have declared a Climate Change Emergency and have Local Plans which should be considered
- Local objectives might need to outweigh broader AMS objectives
- Future airspace change must take account of local plans etc.

Policy



Examples of additional 'Policy' design principles suggestions:

- Future Airspace Change should incorporate local plans and policies regarding air pollution and the climate emergency
- Additional overflight of Natura 2000 sites within 15km of Heathrow should be avoided unless it can be proven that this will not adversely affect their conservation status

Our proposed Policy Design Principle:

- Remain in accordance with the CAA's published Airspace Modernisation Strategy and any current or future plans associated with it and all other relevant UK Policy, Legislation and Regulatory Standards. This includes preventing any worsening of local air quality due to emissions from Heathrow's aircraft movements, to remain within local authorities' limits

Our rationale:

- Although some stakeholders disagree with its inclusion, the principle that we must remain in accordance with the CAA's AMS is mandatory for all major UK airports
- We are required to take account of local development frameworks and consented developments when performing population counts, however local plans and policies are not necessarily UK Government policy (e.g. the London Plan) so we will work with Local Authorities to understand their plans and objectives but will not include a design principle committing to these. Instead of referencing local plans we have a proposed design principle to meet local air quality requirements, in accordance with Government guidance and stakeholder concerns.



Design Principles Matrix - Technology

Technology			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
T1	Workshop 1	Future airspace change should use modern technology	9	18	5	1	0
T2	Workshop 2, 5	Design with latest technological specification possible, that is widely available	10	16	7	0	0
T3	Workshops 4, 12	Future proof airspace design to be able to benefit from future technological developments	7	21	6	0	0
T4	Workshop 12	Use the latest technology that enables the greatest benefit to mitigate societal impacts	15	10	6	0	0
T5	Workshop 12	Minimise the impact of future change	6	10	12	0	3

Examples of Feedback

Community Groups

- Modern technology is vital and should be used to reduce the disbenefits of overflight
- Technology should be used to avoid concentrating flight paths and reduce noise

Focus Groups

- Modernising generally means making improvements: it's a good thing

Local Authorities

- Technology needs to be safe
- Positive impacts of future change should be the objective
- Technological advances should be used to mitigate societal impacts

Industry

- Adoption of modern technology is consistent with the AMS



Examples of Feedback

Design Principles Matrix – Operational Performance

Operational Performance			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
OP1	Workshop 1	Future airspace change should enable Heathrow to make the most efficient use of its runways, subject to environmental commitments	3	16	9	3	4
OP2	Workshop 2	Offer flexibility in the route structure that allows variation, to avoid extensive ground delays	1	10	13	7	3
OP3	Workshops 3, 7	Airlines need to conform to the design to ensure benefits are delivered (e.g., through Heathrow monitoring & KPIs)	16	11	5	1	0
OP4	Workshops 4,8	Make efficient use of runways during the day to lessen the impact on the night schedule	10	16	5	1	0
OP5	Workshop 5	The airspace design needs to retain operational flexibility in order to handle non-standard situations (e.g., weather)	3	19	7	1	2
OP6	Workshop 7	Meet performance targets within acceptable environmental/noise constraints	6	12	13	1	1
OP7	Workshop 10	Minimise the requirement for future change to adjacent airport operations	7	9	16	0	2
OP8	Workshop 10	Minimise impacts on other airspace users	8	11	13	1	1
OP9	Workshop 12	Designs should enable a reduction in stack holding	8	17	6	0	0
N25	Workshop 2	Find a balance between the number of procedures for respite and operational complexity and technical capability (there is an issue with the number of procedures that aircraft/airlines can manage)	3	13	16	2	1
N26	Workshop 5	Don't make large, complex changes only to achieve small noise benefits	0	9	9	10	0

Community Groups

- Noise should take priority over operational performance
- Being able to handle weather events etc should be an operational aspiration rather than an airspace design principle
- Mixed mode operations must be avoided, and night flights should cease
- All noise benefits are valuable [N26]

Local Authorities

- Efficiency should be secondary to environmental and community impacts
- Needs should be balanced and coordinated in strategy across all UK airports

Industry

- Need to consider the impact on adjacent airports' operations and on the wider network
- Should not allow Heathrow's airspace design to limit the benefits that could be achieved by neighbouring airports



Technology & Operational Performance

Examples of additional 'Operational Performance' and 'Technology' design principles suggestions:

- Efficient use of the runways should be subject to meeting “environmental commitments and noise impact for communities”. *(Stakeholder added that this would be especially relevant if Heathrow was to propose introduction of IPA (Independent Parallel Approaches – simultaneous arrivals to both runways), particularly during night-time hours and early in the morning).*
- It is up to Heathrow to ensure it plans its schedule to operate within caps and constraints imposed at night for environmental reasons.
- Heathrow should consider the effect of any changes in its flight routes on the behaviour of other nearby airspace users, including adjacent airfields.
- Heathrow should allow equitable access to Controlled Airspace for other airspace users.
- Heathrow should ensure that the low-level design complements the network to ensure that a reduction in airborne delays can be delivered.
- Heathrow should reduce the overall footprint of controlled airspace.



Technology & Operational Performance

Our proposed Technology & Operational Performance Design Principles:

- Enable Heathrow to make the most operationally efficient and resilient use of its existing two runways, to maximise benefits to all stakeholders
- Ensure the efficiency of other airspace users' operations
- Minimise the impact to all stakeholders from future changes

Our rationale

- Responses requested that efficiency benefits should be “to all stakeholders” not just the airport, airlines and passengers.
- An operationally efficient airspace design will enhance safety, provide capacity and resilience, and reduce delays and late runners, to the benefit of airlines, passengers and overflow communities.
- We are mindful of other airspace users who share the airspace around Heathrow and seek to be a good neighbour.
- The ACP process is time-consuming for both airports and stakeholders. We will seek to reduce the need for subsequent ACPs in the near future, by considering potential future needs (e.g. UAM/drones, airport expansion) in this airspace design.

Examples of Feedback

Noise – Noise Efficient Practices (1 of 6)

Noise			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
N6	Workshops 1, 3 4,6,8,12	There should be steeper climbs for aircraft to get higher quicker and for arrivals to stay as high as possible, for as long as possible	16	9	10	0	0
N16	Workshops 7, 12	Future airspace change should aim to reduce noise before mitigating the impacts of noise	16	10	7	0	0
N17	Workshops 1,6	Seek to limit or reduce the effects of aircraft noise for individuals/local communities (having regard for WHO guidelines)	19	10	5	0	0
N18	Workshop 7	Reduce the impacts on those most significantly affected by noise	15	12	6	0	0
N19	Workshop 7	Provide mitigation for those most adversely affected (those living under final approach/immediate climb out)	16	10	7	0	0
N20	Workshop 1	Don't make it worse for those currently significantly impacted, even if there is an overall net noise reduction	15	11	7	0	0
N21	Workshop 4	Those who currently experience the most noise should benefit most from the airspace change	10	10	13	0	0
N28	Workshop 7	Keep as much of the noise within the airport boundaries as possible	17	10	6	2	0

Our proposed Design Principle:

- Use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise

Community Groups

- Steeper climbs are essential: ICAO advocates the use of NADP*1 (over NADP2) over densely populated residential areas near airports (such as Heathrow) [N6]
- Reducing noise at the source should be a priority [N16]
- What about those not directly overflown who suffer noise constantly [N19]

Local Authorities

- Steeper approaches when landing might work, however, steeper departures are far more complicated to balance – more noise closer to the airport in favour of less noise further along departure route is unlikely to deliver NPSE policy [N6]
- If a reduction is sought it would need to be meaningful and a noticeable improvement for local communities [N18]

Industry

- Keeping arrivals higher for longer is likely to enable benefits for neighbouring airports [N6]

Noise - Sharing noise and providing respite (2 of 6)

Examples of Feedback

Noise			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
N2	Workshops 3,4,6,7,9,11,12	Share the noise	17	6	9	0	1
N3	Workshops 3, 6	Future airspace change should result in a larger number of people slightly annoyed, rather than a smaller number significantly annoyed	9	11	11	2	0
N4	Workshops 6,9,11,12	Share the benefits of the airspace change between industry and communities	9	7	11	4	3
N5	Workshop 3	Departure routes from different runway ends should stay a suitable distance apart to provide valuable respite	15	9	9	0	0
N7	Workshops 3,9	There should be planned respite within safe operational parameters, that provides meaningful respite	15	10	7	0	1
N8	Workshop 4	Share the noise through managed distribution over multiple flight paths	13	10	8	0	2
N9	Workshop 5	Multiple routes for respite to be operated to a schedule	7	11	11	0	1
N10	Workshops 7,8, 9,12	Predictable, meaningful, and equitable respite	14	12	6	0	1
N11	Workshop 8	Share the noise through predictable respite, with respite being provided frequently [e.g., during each day rather than weekly]	9	13	9	0	1
N15	Workshop 8	Overfly new people if it delivers benefits to those currently affected	5	10	14	3	1
N27	Workshops 3, 6,9,10	Future airspace change should avoid overflying the same communities with multiple routes, and taking account routes and the cumulative impacts of routes to/from other airports, below 7000 feet	15	12	6	0	0

Our proposed Design Principle:

- Provide predictable and meaningful respite to those most affected by noise from Heathrow's movements

Community Groups

- It is essential best endeavours are used to achieve managed dispersion as well and optimising the use of airspace around Heathrow to create meaningful respite [N3]
- Well designed and managed respite must be seen as essential to this project [N5]
- What about respite for those not overflown? [N9, N11]
- Aircraft noise must be shared not concentrated [N15]

Local Authorities

- Not sure sharing the noise and exposing more people is a solution [N3]
- Route dispersal to provide meaningful respite, and how respite is defined are crucial [N5]
- Airspace design should offer long term predictability of flight paths and respite [N10]

Industry

- This will need to consider the impact on adjacent airports [N5,N8,N9]

Noise – Avoid multiple routes (3 of 6)

Noise		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
N27	Workshops 3, 5, 9, 10	15	12	6	0	0
Future airspace change should avoid overflying the same communities with multiple routes, and take into account routes and the cumulative impacts of routes to/from other airports, below 7000 feet						

Our proposed Design Principle:

- Avoid overflying the same communities with multiple routes including those to/from other airports

Examples of Feedback

Community Groups

- This is absolutely crucial
- It is essential that communities are not overflowed by multiple routes and in particular by both departures and arrivals (which would mean that meaningful respite would be severely curtailed)

Local Authorities

- Important to ensure airspace changes are co-ordinated between airports
- The closer to the airport, the less opportunity for varying routes.

Industry

- Might be difficult to avoid the London Terminal Manoeuvring Area (LTMA)

Noise – Night Flights (4 of 6)

Noise			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
N12	Workshop 7	Different flight paths for day/night flights	5	7	17	0	2
N13	Workshop 9	Predictable respite during the day and concentrate 'night flights' over open spaces	4	10	11	6	1
N22	Workshop 4	Minimise the negative impacts on health from night flights	19	10	4	0	0

Our proposed Design Principle:

- Minimise the negative impacts of night flights

Examples of Feedback

Community Groups

- The aim should be to minimise noise and its harm to health and well-being. This may or may not lead to different paths for day/night [N12]
- Night flights should cease [N12, N13, N22]

Local Authorities

- Sensible rules around night flight timings, respite and route dispersal might make this less necessary [N12]
- Night flights should be minimal and over open spaces [N12]

Noise – Consider newly overflown (5 of 6)

Noise			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
N1	Workshop 1	The design options must not create any more noise for any single community compared to pre-COVID-19 levels	10	9	9	4	2
N14	Workshop 8	Avoid overflying places that aren't currently overflown	1	6	13	8	6
N23	Workshop 4	Minimise the number of people who experience an increase in noise due to this ACP	8	10	9	4	2

Our proposed Design Principle:

- Keep the number of people who experience an *increase* in noise from the future airspace design to a minimum

Examples of Feedback

Community Noise Groups

- Not sure this is a technical possibility and goes against a principle of sharing the noise pollution more equitably [N1]
- Every community in the vicinity of the airport needs to take its fair share of noise [N14]
- The noise needs to be fairly and equitably shared amongst all communities impacted by overflight from Heathrow [N23]

Focus Groups

- Avoid overflying new people: people who have not previously been overflown are going to be far more sensitive to noise

Local Authorities

- To share noise equitably, some communities with little noise pollution may have to be overflown a little [N14]
- Aim to minimise the number of people newly overflown [N14]

Noise - Noise impacts (6 of 6)

Noise			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
N12	Workshop 7	Different flight paths for day/night flights	5	7	17	0	2
N13	Workshop 9	Predictable respite during the day and concentrate 'night flights' over open spaces	4	10	11	6	1
N22	Workshop 4	Minimise the negative impacts on health from night flights	19	10	4	0	0
N24	Workshop 6	Minimise impacts on those affected by noise, not just those considered to be overflown (e.g., those who hear aircraft/airport noise even though not directly overflown, according to the CAP1498 definition)	9	15	10	1	0
N29	Workshop 9	Make use of open spaces/parks etc.	3	8	16	6	2

Our proposed Design Principle:

- Keep the *total* number of people who experience noise from the future airspace design to a minimum

Examples of Feedback

Community Groups

- What about those communities who are not directly overflown but are subject to constant noise [N13]
- There should be no night flights [N22]
- It depends on the time of day and each open space/park needs to be considered on its merits [N29]

Local Authorities

- Sensitivities day, night and shoulder periods are not necessarily the same [N12]
- Parks are crucial places of respite in particular for lower income groups less likely to have outside space. They should not be targeted for flight paths in the daytime [N29]

Environmental

- The National Trust is concerned that the noise impacts on its open spaces/parks in and near London should not be of greater magnitude following the airspace modernisation [N29]

Noise



Our proposed Noise Design Principles:

- Use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise
- Provide predictable and meaningful respite to those most affected by noise from Heathrow's movements
- Avoid overflying the same communities with multiple routes including those to/from other airports
- Minimise the negative impacts of night flights
- Keep the number of people who experience an *increase* in noise from the future airspace design to a minimum
- Keep the *total* number of people who experience noise from the future airspace design to a minimum

Our rationale

- We received a wide range of conflicting feedback on the various noise principles suggested. We have therefore included a range of noise design principles that include the principles that we received the most consistent support for. These are the “common priorities” and will all be considered in our assessment of airspace design options.

Examples of Feedback



Community Noise Groups

- Noise minimisation should be the top priority (not environment) up to 4000ft and only balanced against CO₂ considerations between 4000ft and 7000ft.
- Not sure we should be trading off increases in noise with possible carbon reductions – we want to see both ideally.

Focus Groups

- Reducing carbon emissions should be top priority: noise is a short-term issue that affects a few people, climate change affects future generations and the whole planet

Local Authorities

- Impact on CO₂ emissions is as important as noise pollution.
- Any carbon offsetting would need to be clearly defined.

Industry

- Carbon/noise priorities should be in line with national policy
- The balance between minimising noise and emissions will need to be judged taking account of national policy and feedback from stakeholders.

Design Principles Matrix – Environment

Environment			Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
E1	Workshop 1	Noise should remain the priority below 4000 feet, regardless of any policy changes	13	8	9	2	0
E2	Workshop 1	Minimise fuel burn, CO ₂ , greenhouse gases and all other contributors to climate change	4	16	9	0	3
E3	Workshop 2	Operate flights in the most CO ₂ efficient/friendly way	8	13	8	1	3
E4	Workshop 3	Must not degrade air quality	15	14	3	0	0
E5	Workshop 4	Noise should be the priority below 7000 feet regardless of CO ₂ impacts	10	9	7	4	2
E6	Workshop 7	The airspace design should deliver a net CO ₂ benefit across Heathrow's operation whilst delivering noise benefits below 7000 feet	10	11	7	3	1
E7	Workshop 9	Noise is the priority below 7000 feet, but the project as a whole should still deliver net carbon reduction for Heathrow's operation	5	19	5	1	2
E8	Workshop 8	The airspace change should deliver an overall CO ₂ reduction for Heathrow's operation. If noise benefits negatively impact CO ₂ below 7000 feet, that needs to be offset by CO ₂ benefits elsewhere (e.g., in the upper airspace or reduced airborne/stack delays)	7	17	5	2	1
E9	Workshop 12	Prioritise noise over carbon	7	4	13	6	2
E10	Workshop 12	Noise and CO ₂ are equally important and there should be a balance	3	12	11	3	4

Environment



Examples of additional ‘Environment’ design principles suggestions:

- Below 4000ft all decisions should support reducing the number of people significantly impacted by noise, then other local pollution impacts, and then mitigating all of those impacts.
- Between 4000-7000ft decisions should support noise impacts by reducing the number of people significantly impacted by noise, then other local pollution impacts, and then mitigating those impacts.
- Above 7000ft decisions should support carbon and other relevant emission reduction, whilst having regard to mitigating noise impacts.

Our proposed Environment Design Principle:

- Reduce the contribution to climate change from CO₂ emissions, and other greenhouse gases emissions relating to Heathrow’s aircraft activities*

* Air Navigation Guidance 2017 states that noise is the priority below 7000ft. Providing some types of noise mitigation measures below 7000ft is likely to negatively impact CO₂ emissions of aircraft in flight. However, the airspace design must still enable overall CO₂ reductions for the Heathrow operation

Our rationale:

- The Government’s Air Navigation Guidance 2017 prioritises the reduction of noise over the reduction of emissions when designing flight paths below 7000ft. However, stakeholder feedback has shown that there is a strong consensus for an airspace design that reduces CO₂. Reduction in CO₂ is also one of the key objectives of the Airspace Modernisation Strategy. We will therefore seek to deliver an overall CO₂ reduction in addition to providing noise mitigation measures in accordance with Government policy.

Heathrow's Proposed Design Principles for Airspace Modernisation

	Proposed Design Principles
Our airspace design must	Be safe for all stakeholders
	Remain in accordance with the CAA's published Airspace Modernisation Strategy and any current or future plans associated with it and all other relevant UK Policy, Legislation and Regulatory Standards. This includes preventing any worsening of local air quality due to emissions from Heathrow's aircraft movements, to remain within local authorities' limits
	Use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise
	Reduce the contribution to climate change from CO ₂ emissions, and other greenhouse gases emissions relating to Heathrow's aircraft activities*
	*ANG2017 states that noise is the priority below 7000ft. Providing some types of noise mitigation measures below 7000ft is likely to negatively impact CO ₂ emissions of aircraft in flight. However, the airspace design must still enable overall CO ₂ reductions for the Heathrow operation.
	Enable Heathrow to make the most operationally efficient and resilient use of its existing two runways, to maximise benefits to all stakeholders
And should also	Provide predictable and meaningful respite to those most affected by noise from Heathrow's movements
	Avoid overflying the same communities with multiple routes including those to/from other airports
	Minimise the negative impacts of night flights
	Keep the number of people who experience an increase in noise from the future airspace design to a minimum
	Keep the total number of people who experience noise from the future airspace design to a minimum
	Ensure the efficiency of other airspace users' operations
	Minimise the impact to all stakeholders from future changes

Any Questions?



Next Steps

You now have an opportunity to provide us with any further feedback on our proposed list of design principles.

Following analysis of this feedback we will create our final list of design principles for this airspace change proposal.

This list, along with all the engagement material and the feedback we have received will form part of our design principles submission document to the CAA.

This will be submitted to the CAA for the DEFINE gateway in Q1 2022.



Further Feedback

You will be emailed a copy of this presentation.

If you have any further feedback on our proposed list of design principles, please email airspace@heathrow.com by:

5:00pm on Wednesday 8 December 2021

Thank you for engaging with us on this important topic.



Friday 26 November 1000-1130		
	Name	Representing
1	[REDACTED]	The Windlesham Society
2	[REDACTED]	The Windlesham Society
3	[REDACTED]	
4	[REDACTED]	Hammersmith & Fulham Council
5	[REDACTED]	Ealing Aircraft Noise Action Group (EANAG)
6	[REDACTED]	HASRA
7	[REDACTED]	HASRA
8	[REDACTED]	Waverley Borough Council
9	[REDACTED]	Plane Hell Action
10	[REDACTED]	Surrey County Council

Friday 26 November 1300-1430		
	Name	Representing
1	[REDACTED]	Bracknell Forest Council
2	[REDACTED]	London Borough of Ealing

Monday 29 November 1000-1130		
	Name	Representing
1	[REDACTED]	
2	[REDACTED]	Molesey Residents Association
3	[REDACTED]	HACAN
4	[REDACTED]	Richmond Heathrow Campaign
5	[REDACTED]	Richmond Heathrow Campaign
6	[REDACTED]	Sevenoaks District Council

7	[REDACTED]	Englefield Green Action Group (EGAG)
8		
9	[REDACTED]	Reading Council
10		
11	[REDACTED]	Pavillion Associaton
12	[REDACTED]	Pavillion Associaton
13	[REDACTED]	CPRE Oxfordshire
14	[REDACTED]	Englefield Green Action Group (EGAG)

Monday 29 November 1300-1430		
	Name	Representing
1	[REDACTED]	Mid Sussex District
2	[REDACTED]	London Borough of Hounslow
3	[REDACTED]	Hertsmere Borough Council
4	[REDACTED]	Teddington Action Group (TAG)
5	[REDACTED]	Bromley Council

Tuesday 30 November 1000-1130		
	Name	Representing
1	[REDACTED]	Buckinghamshire Council
2	[REDACTED]	NATS
3	[REDACTED]	Teddington Action Group (TAG)
4	[REDACTED]	Royal Borough of Windsor & Maidenhead
5	[REDACTED]	National Trust
6	[REDACTED]	St Albans Council
7	[REDACTED]	HCEB

8	[REDACTED]	HSPG
9	[REDACTED]	Central Bedfordshire Council

Tuesday 30 November 1300-1430		
	Name	Representing
1	[REDACTED]	London Borough of Merton
2	[REDACTED]	London Borough of Sutton
3		
4	[REDACTED]	Friends of the Earth
5	[REDACTED]	Forest Hill Society
6	[REDACTED]	London Borough of Hounslow

From: [REDACTED]
Sent on: Monday, November 29, 2021 8:52:29 AM
To: [REDACTED]
CC: [REDACTED]
Subject: RE: FW: Heathrow's Design Principles Phase 2 Workshop - Monday 29 Nov 1000 - 1130

Classification: Internal

Hi [REDACTED]

Thanks for letting us know. We could still accommodate you on any of the three remaining sessions this afternoon or tomorrow am/pm if that suits?

Kind regards,

[REDACTED]

From: [REDACTED]
Sent: 29 November 2021 08:43
To: [REDACTED]
Subject: Re: FW: Heathrow's Design Principles Phase 2 Workshop - Monday 29 Nov 1000 - 1130

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]
Unfortunately I am now unable to attend the workshop today.
Please accept my apologies.
Regards,

[REDACTED]
[REDACTED]

DECEMBER

2021

[REDACTED]

From: DD - Airspace
Sent: 01 December 2021 08:40
Subject: Heathrow's Proposed Design Principles_Airspace Modernisation ACP
Attachments: Heathrow Design Principles Phase 2 Engagement_November 21.pdf

Bcc: [REDACTED]

Classification: Public

Dear stakeholder,

After our Phase 1 workshops and subsequent feedback period to the long list of Design Principles, we have developed a set of proposed design principles for the Airspace Modernisation airspace change. We shared these proposed principles with representatives from our local communities and local authorities at a series of workshops this week and we have asked them to provide any further feedback on these before 5pm Wednesday 8 December.

We would be grateful if you could also review our proposed design principles and provide any feedback on them. **Our proposed principles are set out in the attached slides on Page 25.** The other slides set out examples of the type of feedback we received and how that feedback has been used to develop our design principles.

Please provide any comments or feedback by 5pm Wednesday 8 December via airspace@heathrow.com

Many thanks for your continued support and engagement in this process,

[REDACTED]
Airspace, Noise & ATM Specialist

[REDACTED]

From: DD - Airspace
Sent: 01 December 2021 09:48
Subject: Heathrow's Proposed Design Principles_Airspace Modernisation ACP
Attachments: Heathrow Design Principles Phase 2 Engagement_November 21.pdf

Bcc: [REDACTED]

Classification: Public

Dear stakeholder,

After our Phase 1 workshops and subsequent feedback period to the long list of Design Principles, we have developed a set of proposed design principles for the Airspace Modernisation airspace change. We shared these proposed principles with representatives from our local communities and local authorities at a series of workshops this week and we have asked them to provide any further feedback on these before 5pm Wednesday 8 December.

We would be grateful if you could also review our proposed design principles and provide any feedback on them. **Our proposed principles are set out in the attached slides on Page 25.** The other slides set out examples of the type of feedback we received and how that feedback has been used to develop our design principles.

Please provide any comments or feedback by 5pm Wednesday 8 December via airspace@heathrow.com

Many thanks for your continued support and engagement in this process,

[REDACTED]
Airspace, Noise & ATM Specialist

From: DD - Airspace
Sent: 01 December 2021 16:29
Subject: Heathrow's Proposed Design Principles_Airspace Modernisation ACP
Attachments: Heathrow Design Principles Phase 2 Engagement_November 21.pdf

Bcc:



Classification: Internal

Dear stakeholder,

After our Phase 1 workshops and subsequent feedback period to the long list of Design Principles, we have developed a set of proposed design principles for the Airspace Modernisation airspace change. We shared these proposed principles with representatives from our local communities and local authorities at a series of workshops this week and we have asked them to provide any further feedback on these before 5pm Wednesday 8 December.

We would be grateful if you could also review our proposed design principles and provide any feedback on them. **Our proposed principles are set out in the attached slides on Page 25.** The other slides set out examples of the type of feedback we received and how that feedback has been used to develop our design principles.

Please provide any comments or feedback by 5pm Wednesday 8 December via airspace@heathrow.com

Many thanks for your continued support and engagement in this process,

Subject: Heathrow Design Principles FINAL
Date: Wednesday, 8 December 2021 at 15:29:58 Greenwich Mean Time
From: [REDACTED]
To: [REDACTED]
CC: [REDACTED]

Attachments: .eml

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Please find attached a letter from myself as Heathrow Community Noise Forum (HCNF) Co-Ordinator, Community Noise Groups and local authority representatives who represent those communities within the HCNF and whose names are added at the end of the attached letter.

For the avoidance of doubt the HCNF represents the interests of the substantive majority of communities that surround Heathrow as well as those that are particularly affected by Heathrow aircraft movements.

We look forward to hearing from you.

Thanks in advance of your response.

Best regards,

[REDACTED]
HCNF CO-Ordinator

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Registered Office: Unit 8, The Ridgeway Trading Estate, Iver, Bucks. SL0 9HJ

Letter to Heathrow Airport Limited
from members of
The Heathrow Community Noise Forum
8 November 2021

To
cc

Dear

Ref: Heathrow Airspace Modernisation (FASI South) (ACP-2021-056)
Sponsor: Heathrow
Step 1b Design Principles

This letter is sent on behalf of Community Noise Groups and local authority representatives who are members of the Heathrow Community Noise Forum and have added their names at the end of this letter.

We refer to Heathrow's presentation slides "Airspace Modernisation: Airspace Change Proposal Design Principles Engagement: Phase 2 Workshop" emailed to us following our attendances at the Stage 2 workshops held at the end of November/early December. This document contains Heathrow's proposed short-list of Design Principles in preparation for submission to the CAA.

We disagree with the set of short-listed Principles chosen by Heathrow and record here what we believe is a failure of the CAP 1616 engagement process between Heathrow as sponsor and ourselves as stakeholders.

1. The Design Principles do not adequately reflect ANGI17 Noise Objectives, adopted national policy which has legal effect,
2. The process adopted by Heathrow for consulting affected communities is not fair, transparent and is potentially open to challenge as it does not reflect the 'Gunning principles' (meaningful consultation with an open mind at the formative stage with sufficient time given),
3. There has been no dialogue or response from Heathrow to previously expressed concerns on the Principles Matrix or to the concerns raised during the Stage 2 workshops. Indeed, Heathrow says '*We are unable to share all the feedback we received during this workshop and how we have utilised it, due to time constraints*'. We have had no opportunity to examine Heathrow's interpretation of the feedback or weightings given to views of different stakeholders.
4. Given the significance of the Stage 2 there has been insufficient time for communities to respond to the slide pack with-held from participants until after the Stage 2 workshops and the deadline for response on 8 December. One week for communities to respond to life changing proposals, when their expressed concerns have not even been mentioned, is unacceptable.

The communities affected by the proposed design changes must emphasise that they do not agree with the Design Principles as stated but remain desirous and willing to enter meaningful consultation.

We look forward to your responding to us on these matters as soon as possible given the approaching deadlines set out in the CAP 1616 portal. In the interests of sending you a letter at the earliest opportunity we have a limited list of members of the HCNF signing this letter and we would welcome, please, your response to each of us.

Yours faithfully

[REDACTED] Heathrow Community Noise Forum Co-Ordinator

[REDACTED] Co-Ordinator, HACAN
[REDACTED], Teddington Action Group
[REDACTED], Richmond Heathrow Campaign
[REDACTED], Windsor & Maidenhead Local Authority
[REDACTED], Englefield Green Action Group
[REDACTED] HASRA
[REDACTED] HASRA
[REDACTED], Iver Parish Council
[REDACTED], Plane Hell Action Group (Dulwich & surrounding areas)
[REDACTED], The Windlesham Society
[REDACTED], AN3V, Bagshot & Lightwater
[REDACTED], Ealing Aircraft Noise Action Group

Subject: RE: Heathrow Design Principles
Date: Thursday, 9 December 2021 at 19:51:14 Greenwich Mean Time
From: DD - Airspace
To: [Redacted]

Attachments: [Untitled].pdf

Dear [Redacted]

Thank you for your letter regarding our design principles for Airspace Modernisation.

We are disappointed to hear that the signatories do not agree with the proposed design principles, and we would like to better understand your comments on the design principles we have proposed. We would therefore like to offer another opportunity to discuss each design principle in turn. We could host a further workshop next Wednesday (15 December) or in early January (Thursday 7 January) if that works for you and the other signatories?

In the meantime, I have addressed each of your points below:

1. *The Design Principles do not adequately reflect ANG17 Noise Objectives, adopted national policy which has legal effect*

The relevance of Air Navigation Guidance 2017 was discussed in each of the 6 workshops, particularly in relation to the altitude-based priorities. We clarified in the workshops that we would need to design our new flight paths in accordance with Air Navigation Guidance and that this was covered under our second design principle, which is: [“Remain in accordance with the CAA's published Airspace Modernisation Strategy and any current or future plans associated with it and all other relevant UK Policy, Legislation and Regulatory Standards. This includes preventing any worsening of local air quality due to emissions from Heathrow's aircraft movements, to remain within local authorities' limits”](#).

We also discussed adding a qualifying statement to some of the design principles and based on stakeholder feedback in the workshops, our current proposal is that this design principle would include a statement that [“UK Policy includes the latest Air Navigation Guidance and Noise Policy Statement for England”](#)

2. *The process adopted by Heathrow for consulting affected communities is not fair, transparent and is potentially open to challenge as it does not reflect the ‘Gunning principles’ (meaningful consultation with an open mind at the formative stage with sufficient time given)*

The CAA's CAP1616 process for airspace change does not require us to undertake consultation on design principles. A full public consultation will be held at a later stage of the process when we have flight path options to share. Design principles should be developed through engagement with local stakeholder representatives and we therefore invited community noise group representatives, local authorities, environmental groups and the airport's consultative committee to join our 18 workshops on design principles (12 at Phase 1 and 6 at Phase 2). We also hosted some focus groups with the general public and we placed a feedback form on our website so that anyone with an interest in our airspace change could share their views. We ran an awareness campaign to inform people of the project and to direct them to our new webpages and explanatory video - this included radio, newspaper and social media adverts.

3. There has been no dialogue or response from Heathrow to previously expressed concerns on the Principles Matrix or to the concerns raised during the Stage 2 workshops. Indeed, Heathrow says 'we are unable to share all the feedback we received during this workshop and how we have utilised it, due to time constraints'. We have had no opportunity to examine Heathrow's interpretation of the feedback or weightings given to views of different stakeholders.

The Phase 2 workshops provided an opportunity to discuss the proposed principles and any concerns that local community representatives had with them. I am sorry that you were unable to attend the workshops and we would have arranged an additional session if none of the times were suitable for you. We had detailed discussions on the principles in the workshops and we heard the concerns of your letter's signatories around fear of how PBN might impact them, the importance of respite from noise and avoiding multiple routes over the same areas. We also noted specific concerns around the use of "most affected" in our proposed respite principle. We have been reviewing our proposed design principles to ensure they reflect the issues and priorities raised by this group as well as our other stakeholders. A final set of design principles will be shared with all stakeholders before submission to the CAA in Q1 next year.

The comment in our slide pack was that we were unable to share all of the feedback we received "during this workshop" and the "time constraints" referred to the time constraints of a 1.5 hour workshop. We therefore summarised the key themes from the feedback in the workshop and explained how this feedback had influenced the proposed design principle for each theme. All the stakeholder feedback we received will be included in our CAA submission which will be published on the CAA portal.

We did not apply "weightings to views of different stakeholders" but tried to capture the range of views received by stakeholders in our set of proposed design principles. The CAA acknowledges that unanimous agreement on the principles may be unlikely, and we have tried to capture multiple viewpoints wherever possible. For example, our fourth design principle recognises that Air Navigation Guidance 2017 will lead us to design routes that prioritise reducing noise for local communities below 4000ft, and drives us to *also* reduce carbon emissions since we heard that greenhouse gas emissions are a greater concern for many of our stakeholders.

FURTHER WORKSHOP / AIRSPACE DESIGN PRINCIPLES

[REDACTED]

Fri 10/12/2021 12:08

To: DD - Airspace <airspace@heathrow.com>

Cc: [REDACTED]

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

I will confer with the HCNF community members/CNG's and advise you of a couple of dates that hopefully will work for you and your colleagues. However next Wednesday is too short notice for many and at this point I would suggest the further workshop be hosted further into January to give all sufficient time from the end of the Christmas/New Year break.

I will let you know the best dates during next week when I have heard back from the others.

Bes [REDACTED]

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Kossway Automatics Limited (registered no. 747250)

Registered Office: Unit 8, The Ridgeway Trading Estate, Iver, Bucks. SL0 9HJ

From: [REDACTED]

Sent: 09 December 2021 19:51

[REDACTED]

Subject: RE: Heathrow Design Principles

Dear [REDACTED]

RE: FURTHER WORKSHOP / AIRSPACE DESIGN PRINCIPLES

DD - Airspace <airspace@heathrow.com>

Mon 13/12/2021 11:56

To:

📎 1 attachments (29 KB)

211210 Proposed Design Principles for Airspace Modernisation.docx;

Dear

Thank you for your response. Please can I urge you and the other signatories of the letter to propose a date between now and the 7 January. We are keen to understand your concerns with the proposed list of design principles to ensure we can take account of your feedback prior to finalising the list.

We have been engaging on design principles for over 10 weeks now, since our first workshop on Monday 27 September. Over that period we have hosted 18 workshops, issued 2 slide packs and a matrix, and provided a dedicated email address for your feedback. All of the signatories (apart from yourself) have attended 2 workshops and have had an opportunity to input their views into the process, and the list of proposed design principles presented in the last set of workshops reflected the feedback we had received.

We will endeavour to make ourselves available on a date that suits you. It does not necessarily need to be all signatories who attend, if the group is happy for a few of you to act as spokesperson.

I have also attached a table with the proposed design principles and a column for you to provide feedback so that we understand which design principles you disagree with. We would be grateful if you could return this to us to help inform the discussion. Please note that this is the list of proposed design principles we shared in the Phase 2 workshops: we are currently reviewing these design principles to take account of the useful feedback we received in the workshops and via emails so these are subject to change. We would like the opportunity to include feedback from you and the other signatories in this review.

Thank you for your ongoing engagement,

	Proposed Design Principles (December 2021)	Feedback
Our airspace design must	Be safe for all stakeholders	
	Remain in accordance with the CAA's published Airspace Modernisation Strategy and any current or future plans associated with it and all other relevant UK Policy, Legislation and Regulatory Standards. This includes preventing any worsening of local air quality due to emissions from Heathrow's aircraft movements, to remain within local authorities' limits	
	Use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise	
	Reduce the contribution to climate change from CO ₂ emissions, and other greenhouse gas emissions relating to Heathrow's aircraft activities* *ANG2017 states that noise is the priority below 7000ft. Providing some types of noise mitigation measures below 7000ft is likely to negatively impact CO ₂ emissions of aircraft in flight. However, the airspace design must still enable overall CO ₂ reductions for the Heathrow operation.	
	Enable Heathrow to make the most operationally efficient and resilient use of its existing two runways, to maximise benefits to all stakeholders	
And should also	Provide predictable and meaningful respite to those most affected by noise from Heathrow's movements	
	Avoid overflying the same communities with multiple routes including those to/from other airports	
	Minimise the negative impacts of night flights	
	Keep the number of people who experience an increase in noise from the future airspace design to a minimum	
	Keep the total number of people who experience noise from the future airspace design to a minimum	
	Ensure the efficiency of other airspace users' operations	
	Minimise the impact to all stakeholders from future changes	

RE: FURTHER WORKSHOP / AIRSPACE DESIGN PRINCIPLES

Mon 13/12/2021 13:05

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

I received not a single invitation from HCNF to attend a workshop. The only reason I attended the 2nd, Feedback, Workshop was due to [REDACTED] forwarding HCNF community groups the information and invitation for November Workshops.

You have effectively prevented some communities in SE London from feeding into the discussions on arrivals operations, on concentrated flightpaths, on lack of runway alternation and on the grim impact of night flights.

It is not only [REDACTED] who has not attended 2 sessions.

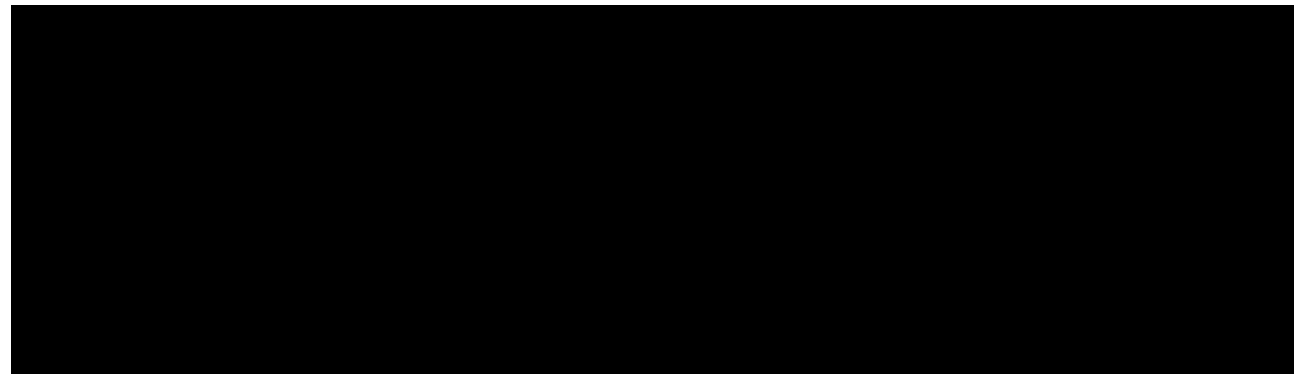
[REDACTED]
www.planehellaction.org.uk

O

RE: FURTHER WORKSHOP / AIRSPACE DESIGN PRINCIPLES

DD - Airspace <airspace@heathrow.com>

Tue 14/12/2021 12:28



Dear 

I have checked our records and we sent you an invite to the first workshop on 31 August. That invite was sent to all HCNF members – please could you check your spam folder and email settings to ensure you receive emails from heathrow.com domain addresses directly into your inbox?

We then sent an invite to the second set of workshops to all HCNF members on 3 November.

Kind regards,

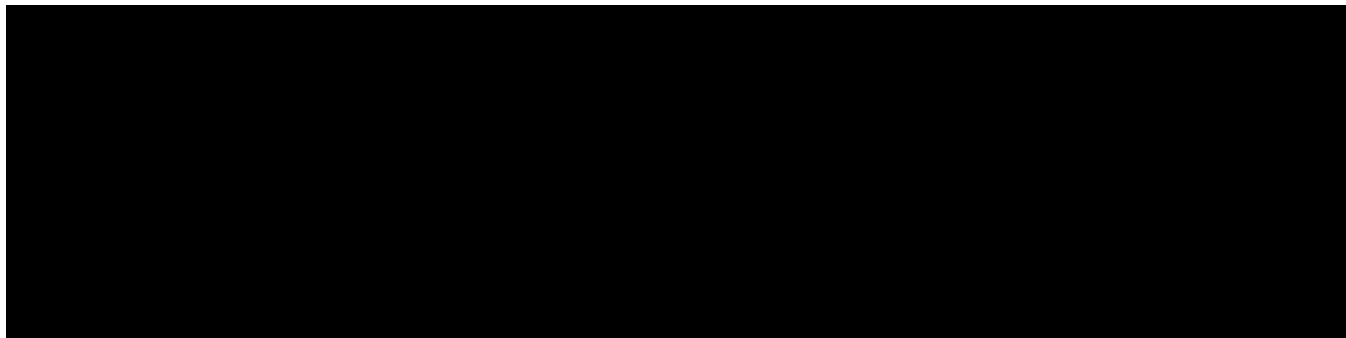


Re: FURTHER WORKSHOP / AIRSPACE DESIGN PRINCIPLES



Wed 15/12/2021 12:12

To: DD - Airspace <airspace@heathrow.com>



Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [Redacted]

You expect technical expertise beyond my capabilities, as has been shown at Heathrow's TEAM meetings. It is too late to change settings for the failings to involve timely contributions to your Airspace Design Principles.

I can confirm, having trawled through emails, that I did receive your invitation of 31 August 2021. I have nothing dated 3 November 2021 and only attended thanks to Paul Conway's email to us all. Neither have I received the outcome of those first workshops as suggested was sent to all those invited even if they could not attend, relevant section highlighted of Slide 5 of the slide pack sent to attendees of the 2nd round of Workshops after the workshop on 24 November 2021, attached and below:

Classification: Public

Summary of Phase 1 Engagement

Proposed by	Principle	Status	Agreed	Approved	Disagreed	Further comments	Priority
P1	Principle 1: Heathrow's design should be able to meet the needs of the community, including those of the environment.						
P2	Principle 2: Heathrow's design should be able to meet the needs of the community, including those of the environment.						
P3	Principle 3: Heathrow's design should be able to meet the needs of the community, including those of the environment.						
P4	Principle 4: Heathrow's design should be able to meet the needs of the community, including those of the environment.						
P5	Principle 5: Heathrow's design should be able to meet the needs of the community, including those of the environment.						

Heathrow's design principles engagement has been split into two phases. Phase 1 was our initial engagement with community and industry stakeholders.

We held 12 workshops between 27 September – 6 October 2021 to discuss design principles that were important to stakeholders for this ACP.

The outcome of these workshops was a long list of design principles suggested by stakeholders, which was distributed to all stakeholders invited to the workshops, even if they were unable to attend.

This list was also emailed to industry stakeholders, such as NATMAC, FLOPSC, adjacent airports and Heathrow airlines.

All stakeholders were given time to consider the long list of suggested design principles and provide feedback.



Perhaps you could advise the date that this was sent?

Kind regards

██████████
On 14/12/2021 12:28, DD - Airspace wrote:

Dear ██████████

I have checked our records and we sent you an invite to the first workshop on 31 August. That invite was sent to all HCNF members – please could you check your spam folder and email settings to ensure you receive emails from heathrow.com domain addresses directly into your inbox?

We then sent an invite to the second set of workshops to all HCNF members on 3 November.

From: DD - Airspace
Sent: 17 December 2021 18:27
To: [REDACTED]
Subject: RE: FURTHER WORKSHOP / AIRSPACE DESIGN PRINCIPLES

Dear [REDACTED]

I have provided a summary of HCNF engagement on design principles below – I hope this is useful. I have highlighted the date that the matrix of design principle suggestions was sent out after the Phase 1 workshops.

Kind regards,
[REDACTED]

Date	HCNF Engagement
19 July	Email: Informing HCNF of Statement of Need for Airspace Modernisation
28 July	HCNF Forum: Airspace Modernisation Update
31 August	Email: Invitation to Phase 1 workshops on Design Principles
14 September	Email: Reminder to HCNF members to book a slot at a Phase 1 workshop
27 September	Workshop: Phase 1 workshop with HCNF attendees
28 September	Workshop: Phase 1 workshop with HCNF attendees
29 September	Workshop: Phase 1 workshop with HCNF attendees
1 October	Workshop: Phase 1 workshop with HCNF attendees
4 October	Workshop: Phase 1 workshop with HCNF attendees
5 October	Workshop: Phase 1 workshop with HCNF attendees
6 October	Workshop: Phase 1 workshop with HCNF attendees
15 October	Email: Matrix of long list of suggested Design Principles (post-workshops)
20 October	HCNF Forum: Airspace Update and reminder to complete and return Matrix
3 November	Email: Invitation to Phase 2 workshops on Design Principles
26 November	Workshop: Phase 2 workshop with HCNF attendees
26 November	Email: Slides from Phase 2 workshop (to attendees)
29 November	Workshop: Phase 2 workshop with HCNF attendees
29 November	Email: Slides from Phase 2 workshop (to attendees)
30 November	Workshop: Phase 2 workshop with HCNF attendees
30 November	Email: Slides from Phase 2 workshop (to attendees)

[REDACTED]

From: DD - Airspace
Sent: 17 December 2021 18:30
To: [REDACTED]
Subject: RE: Heathrow CO2

Dear [REDACTED]

Thank you for your email, and for your continued engagement in our development of design principles.

Heathrow publishes its carbon footprint annually as either a standalone report or, more recently, alongside our annual sustainability report. These reports are published on Heathrow.com:

[Reports and further reading | Heathrow](#)

The 2018 data that you refer to is provided in 'Heathrow Carbon Footprint 2018': [Heathrow-Carbon-Footprint-report 2018.pdf](#)

Emissions from aircraft are currently reported in 2 categories, LTO (aircraft in landing and take-off mode) & Cruise. LTO covers all aircraft movements in landing and take-off below 3000ft, including ground movements. Cruise covers all departure flights from 3000ft to destination airport (only departure flights are accounted for to avoid double accounting with other airports). Unfortunately for historic emissions we do not have the data to provide a breakdown across LTO & Cruise for specific altitude ranges.

When presenting different flight path options (at a later stage of the airspace change design process), we will share estimates of the greenhouse gas (GHG) emissions associated with each one, along with relevant data estimating noise impacts and all other potential impacts.

Kind regards,
[REDACTED]

From: [REDACTED]
Sent: 10 December 2021 13:51
To: [REDACTED]
Cc: [REDACTED]
Subject: Heathrow CO2

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

In seeking to understand the proposed Principle on CO2 and trade offs with noise (ANG17), it would be a real help to have some approximate figures for CO2.

Our understanding is that in 2018 Heathrow CO2 emissions were around 22 million tonnes based on departure flights and ground operations.

Could you give us some indicative figures please for say 2018 for CO2 emissions up to 4k feet and between 4K and 7k feet separately for Heathrow departures and arrivals and also for the four arrivals stacks above 7k feet. I realise

that later in the process more definitive figures will be needed when comparing options. Alternatively, you may have fuel burn figures and it is relatively easy to convert to CO2 emissions.

Thank you.

I am copying this email to [REDACTED] as co-ordinator. On your suggested time table etc we are planning on working through [REDACTED]

Kind regards

[REDACTED]

[REDACTED]

Chair, Richmond Heathrow Campaign

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

[REDACTED]

From: DD - Airspace
Sent: 17 December 2021 18:33
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Heathrow Airspace Modernisation: Workshop invite

Dear [REDACTED]

Thank you for your email, and for your engagement in our development of design principles for our airspace change.

I wanted to clarify a few points from your email. Sorry for the delay in getting back to you.

1. You asked about plans for potential routes. The airspace design process needs to be undertaken in accordance with the Civil Aviation Authority's (CAA) "CAP1616" process and this requires us to begin with a longlist of potential flight path options based on our design principles. We will then evaluate the longlist of options and identify a shortlist of potential flight paths. We will hold a full public consultation on our proposed airspace design option(s) at Stage 3 of the process and we will share full information on the areas likely to be overflowed and the impacts of these flight paths. We currently anticipate holding this public consultation in 2025 (date to be confirmed nearer the time). A link to the CAA's airspace change process is below if you would like to understand more about the process we are following in the meantime:
[CAP1616: Airspace change: Guidance on the regulatory process for changing the notified airspace design and planned and permanent redistribution of air traffic, and on providing airspace information \(caa.co.uk\)](https://www.caa.co.uk/air-traffic/changes-to-air-traffic/changes-to-air-traffic-and-airspace-design)
2. One of our proposed design principles is to "Use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise". The benefits of steeper approaches and steeper climbs will be considered within this design principle and we will need to assess the overall noise impact of each potential flight path. Heathrow are responsible for designing flight paths up to 7000ft AMSL.
3. We have another proposed design principle that considers "the efficiency of other airspace users" and this relates in part to our controlled airspace. Heathrow is keen to minimise the effect that our airspace design has on operations within and adjacent to our airspace. We have engaged all local airports and airfields in our development of design principles for this airspace change, and we will continue to work closely with these industry stakeholders as our airspace design options develop.

Thanks again for your engagement – and we will let you know when there are future updates or workshops on our evolving airspace design.

Kind regards,
[REDACTED]

From: [REDACTED]
Sent: 01 December 2021 15:24
To: DD - Airspace <airspace@heathrow.com>
Cc: [REDACTED]
Subject: Re: Heathrow Airspace Modernisation: Workshop invite

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

No problem with joining once the required info came through in time thank you.

As a very late attendee to the subject, it was rather as I expected from the documentation you supplied. Obviously, those living closer to Heathrow are the most likely to be affected by any proposals from the points of noise and pollution whereas for Oxfordshire County I would guess the effects will be less dramatic.

The only part none of the attendees can really get to grips with yet is that there are not any draft plans for potential routes; unless I have missed out on these. The consultant seems to be working on the possible routes and then will present these at a future meeting early next year. It is only then that I would really be able to see where any flight paths might cross and might affect populations, the environment, wildlife sites, etc in the Oxfordshire areas.

One thing that did cross my mind that seemed to be missing from the debates was any ideas of heights of flights. I thought it sensible to be looking at steeper climb outs and descents as modern commercial aircraft are very capable of achieving these, especially compared to the old piston and early jet aircraft that were the foundation for the present controlled airspace boundaries. The only mention was that the consultant is working on heights from below 7,000 feet; is that AMSL or above the surface?

From this I wondered whether there are any plans as part of this review to reduce the areas of controlled airspace, especially those of the CTA where they go to the surface?

I also assume that the base of the Controlled Air Space that is presently at 2,500 ft around the London Heathrow Control Area (CTA) might be able to be raised if the approach and departures are steeper? I am assuming this is possible as it is an Airspace Change Procedure (ACP) that can change the controlled airspace dimensions.

May I ask whether similar workshops have been or are planned to take place with local aerodromes such as White Waltham, Fair Oaks, Wycombe Air Park, Stapleford, Denham, Northolt, Biggin Hill, etc to determine the possible effects any draft ACP might have to their operations? I also assume the consultants are working closely with London City Airport as well?

As you can tell, I have a lot of questions and assumptions that might need clarifying at future workshops please.

Regards from [REDACTED]

[REDACTED]

CPRE Oxfordshire.

Sent from my iPad

[REDACTED]

From: DD - Airspace
Sent: 17 December 2021 18:57
To: [REDACTED] t
Subject: RE: Further response to the second round of workshops - Heathrow Airspace Modernisation Design Principles

Dear [REDACTED]

Thank you for your attendance at the workshop, and for your subsequent email. We appreciate HSPG's engagement in our development of design principles.

I have answered each of your queries/suggestions below. Please do let me know if anything is unclear or if there is anything further you would like to discuss. We will be sharing our final list of design principles with stakeholders (including HSPG) prior to submitting our report to the CAA in Q1 2022.

Many thanks,
[REDACTED]

- a) I was pleased to see that the presentation slides and discussion suggest you are considering a fair number of our previous submitted responses.
- b) At the second workshop I suggested greater clarity be added around what is meant by the heading of 'safety' (implied to mean the *acute* risks of crashing planes etc) and then how long term *chronic* 'safety' issues around health and wellbeing are addressed? HAL undertook to consider this further.

We were asked about the definition of safety in a couple of the workshops. We are proposing to add a qualifying statement to this design principle to set out the definition of safety and clarify that it relates to the avoidance of catastrophic events. Safety issues around health and wellbeing are captured under policy so these are included in our second design principle. We are also considering adding a list of relevant policies as a qualifying statement to this design principle following stakeholder feedback. If there are any specific policies that you would like to see mentioned, please let us know.

- c) A statement was made in the workshop that you use the heading of 'environment' as a shorthand for climate change/decarbonisation – this also needs a bit for unpacking for greater clarity. As you will agree, there are a range of environmental impacts to consider and even balance with carbon reduction.

We used the theme "environment" to discuss design principle suggestions relating to carbon and climate change. We recognise that the term "environment" would usually include noise, however we wanted to discuss the many issues and trade-offs relating to noise as a separate category. I hope you agree that our proposed design principles cover all of the environmental issues (carbon, noise and air quality) that you would expect us to include.

- d) I asked you to make more explicit recognition to the need for the efficient planning of runways to ensure there is sufficient resilience and flexibility in the daily schedule to avoid late early/runners during the Night time (23.00 – 07.00). You undertook to consider this further

We took note of your feedback that we should be more explicit about the benefits of us making operationally efficient and resilient use of our existing two runways. We mentioned in the workshop that this would include reducing the need for late running flights during periods of disruption. We are proposing to amend our design principle to make it clearer that this design principle will be seeking to deliver benefits to the airport, airlines and local communities.

- e) You offered a useful clarification – that 'airspace' covers 'all aircraft activities insofar as they affect flying' – thus including things on the ground such as displaced thresholds or that use of certain flight routes are restricted to certain runways etc. I remain unclear how the carbon effects of aircraft activities on the ground

leading to more or less taxiing time etc are accounted for in terms of carbon? Is this part of airport operations 'basket' or as part of the total flight movement 'basket'? How will HAL present the whole balanced picture re Heathrow's total carbon emissions?

Aircraft movements on the ground (taxiing etc) are monitored using the OPAS ground tracking system which allows us to track each movement accurately and then calculate greenhouse gas (GHG) emissions. These emissions are then accounted for in our measure of "Aircraft in landing and take-off (LTO) mode" along with GHG emissions attributable to aircraft movements below 3000ft. We also report on "Cruise" greenhouse gas emissions which covers all departures above 3000ft to the destination airport (Heathrow publishes its carbon footprint annually as either a standalone report or more recently alongside our annual sustainability report – available on Heathrow.com).

Ground movements and departures/arrivals below 3000ft are therefore accounted for in the same "basket". Our design principle to "reduce the contribution to climate change from CO₂ emissions, and other greenhouse gas emissions relating to Heathrow's aircraft activities" relates to aircraft on a flight path rather than on the ground, since our airspace design can have limited impact on emissions on the airfield. When presenting different flight path options we will share estimates of the GHG emissions associated with each one.

- f) HAL intend to introduce full alternation on Easterly Operations – this will require some development works to taxi-ways to the Northern Runway etc. There was some uncertainty in the presentation and you undertook to provide me clarification as to the status of the Cranford agreement and the intended permitting process for the necessary development works – whether through DCO, PA or GDPO etc.

Heathrow remains committed to providing respite for those affected by easterly operations and this will form part of our plans for airspace modernisation. We will be seeking planning permission from Hillingdon Council for the required airfield works, since these works would not trigger the requirement for a DCO on their own. Previous planning permission for these works, granted in February 2017, has now expired. We do not have confirmed timescales for this project, since Heathrow remains focused on recovery from Covid-19, but we will provide an update to HSPG as soon as we have one.

- g) On 'environment' – a more defined goal for reduction may help direct partnered airports to co-ordinate better. If these carbon savings are mainly from more fuel-efficient flight paths, can we think about breaking down the principle. e.g. reducing time spent in holding stacks etc? The need for a somewhat loose principle is understood for the sake of simplicity, but this might help incentivise airports to collaborate and to record, capture and improve their data.

Our design principles need to relate to our own airspace design. We have decided to include a design principle that "our airspace design must reduce the contribution to climate change from CO₂ emissions, and other greenhouse gases emissions relating to Heathrow's aircraft activities" but we cannot direct other airports to design their own airspace in the same way. We will be innovative and look at all options for reducing carbon, and this will include seeking to reduce time in holding stacks, but it is important to keep the design principle flexible rather than base it on solutions at this early stage.

- h) Equalities in design? In the UK, 15% of people take 70% of all flights, while nearly 50% of the population do not fly at all – highly unequal division of carbon budget. How might route design shape this? e.g. attempting to address carbon heavy routes?

I'm not sure what you are suggesting here but we will take account of traffic forecasts when looking at the carbon impact (and other impacts) of potential routes. We will have more information on this to share at the full public consultation we will undertake at Stage 3.

- i) Where the principles state maximising the benefits to 'all' stakeholders, does this seek to distribute the benefits 'equally' or 'fairly' or on the basis of some weighted framework?

As mentioned above, we are proposing to change the design principle from "maximise benefits to all stakeholders" to be more explicit about who those stakeholders are – airport, airlines and local communities. The intention behind this design principle is that a more efficient and resilient airport will bring benefits to all of these groups (as well as to passengers).

Kind regards,



From: [REDACTED]

Sent: 07 December 2021 18:15

To: [REDACTED]

Subject: Further response to the second round of workshops - Heathrow Airspace Modernisation Design Principles

Classification: Internal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Just a few further comments following the second workshop session outlining the responses you received to the first workshop, otherwise please add this to the previous HSPG response letter and matrix responses to the first workshop.

- a) I was pleased to see that the presentation slides and discussion suggest you are considering a fair number of our previous submitted responses.
- b) At the second workshop I suggested greater clarity be added around what is meant by the heading of 'safety' (implied to mean the *acute* risks of crashing planes etc) and then how long term *chronic* 'safety' issues around health and wellbeing are addressed? HAL undertook to consider this further.
- c) A statement was made in the workshop that you use the heading of 'environment' as a shorthand for climate change/decarbonisation – this also needs a bit for unpacking for greater clarity. As you will agree, there are a range of environmental impacts to consider and even balance with carbon reduction.
- d) I asked you to make more explicit recognition to the need for the efficient planning of runways to ensure there is sufficient resilience and flexibility in the daily schedule to avoid late early/runners during the Night time (23.00 – 07.00). You undertook to consider this further
- e) You offered a useful clarification – that 'airspace' covers 'all aircraft activities insofar as they affect flying' – thus including things on the ground such as displaced thresholds or that use of certain flight routes are restricted to certain runways etc. I remain unclear how the carbon effects of aircraft activities on the ground leading to more or less taxiing time etc are accounted for in terms of carbon? Is this part of airport operations 'basket' or as part of the total flight movement 'basket'? How will HAL present the whole balanced picture re Heathrow's total carbon emissions?
- f) HAL intend to introduce full alternation on Easterly Operations – this will require some development works to taxi-ways to the Northern Runway etc. There was some uncertainty in the presentation and you undertook to provide me clarification as to the status of the Cranford agreement and the intended permitting process for the necessary development works – whether through DCO, PA or GDPO etc.
- g) On 'environment' – a more defined goal for reduction may help direct partnered airports to co-ordinate better. If these carbon savings are mainly from more fuel-efficient flight paths, can we think about breaking down the principle. e.g. reducing time spent in holding stacks etc? The need for a somewhat loose principle is understood for the sake of simplicity, but this might help incentivise airports to collaborate and to record, capture and improve their data.
- h) Equalities in design? In the UK, 15% of people take 70% of all flights, while nearly 50% of the population do not fly at all – highly unequal division of carbon budget. How might route design shape this? e.g. attempting to address carbon heavy routes?
- i) Where the principles state maximising the benefits to 'all' stakeholders, does this seek to distribute the benefits 'equally' or 'fairly' or on the basis of some weighted framework?

HSPG look forward to seeing the full responses to our submissions in the formal report to CAA in Q1/22. If you wish to discuss or clarify any of the submitted points do please get in touch.

Kind Regards

[REDACTED]

[REDACTED]

Lead Advisor
Heathrow Strategic Planning Group

[REDACTED]

PLEASE NOTE NEW PHONE NUMBER

From: DD - Airspace <airspace@heathrow.com>
Sent: 30 November 2021 14:50
To: DD - Airspace <airspace@heathrow.com>
Subject: Today's workshop on Airspace Modernisation Design Principles

Classification: Internal

Hello,

I have attached the slides from today's session, as promised. Thanks again for your time and engagement on our Design Principles for Airspace Modernisation. We hope you found the session useful.

If you have any further questions or feedback on these, please let us know before 5pm on Wednesday 8 December. We will then finalise our Design Principles and submit these to the CAA in Q1 2022, in a document that sets out the process we have followed and the stakeholder feedback we have received. The document will be published on the CAA's portal and we will update you to let you know when it is on there.

Many thanks,

[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: 19 December 2021 17:54
To: [REDACTED]
Cc: [REDACTED]
Subject: Heathrow Airspace Modernisation (FASI South) (ACP 2021 056)

Follow Up Flag: Flag for follow up
Flag Status: Completed

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

On behalf of Elmbridge Council and the Molesey Residents' Association I am writing in support of the letter of the 8th December 2021 sent to you by a number of members of the HCNF disagreeing with the short-listed Principles selected by Heathrow.

There was only a short time between the second phase airspace redesign principles workshops and the deadline for further comments, which left little time for proper consultation with Elmbridge and the MRA. Therefore, I was not in a position to sign the original letter on their behalf. However, I now have formal approval to write in full support of the points made in the letter of 8th December 2021 and would like it noted that Elmbridge and the MRA would have been direct signatories had time allowed.

Yours sincerely,

[REDACTED]
HCNF Member Elmbridge & MRA

[REDACTED]

From: [REDACTED]
Sent: 20 December 2021 12:39
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal
Attachments: Heathrow Design Principles Phase 2 Engagement_November 21.pdf

Dear [REDACTED]

Thank you for your interest in our Airspace Modernisation Airspace Change Proposal.

I attach the slides that we shared at the Phase 2 workshops. These slides include our proposed design principles on page 25. If you have any feedback on this list of proposed design principles, please let us know at airspace@heathrow.com

We will be submitting our final list of design principles to the CAA in Q1 2022, and this submission will take account of all feedback received.

Many thanks,
[REDACTED]

[REDACTED] | **Airspace Modernisation Programme**

From: [REDACTED]
Sent: 17 December 2021 11:46
To: [REDACTED]
Subject: RE: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Classification: Internal

Hi [REDACTED]

My colleague [REDACTED] will be able to send you through the slides and advise on next steps.

Kind regards
[REDACTED]

From: [REDACTED]
Sent: 17 December 2021 11:37
To: [REDACTED]
Subject: Re: Invitation to Phase 2 workshop - Airspace Modernisation Airspace Change Proposal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hi all,

Could you send me through the slides from Stage 2 please? Are there any actions required from this?

Best wishes,

[REDACTED]

Corporate Strategy and Partnerships Manager

[REDACTED]

From: [REDACTED]
Sent on: Monday, December 20, 2021 2:45:11 PM
To: [REDACTED]
CC: [REDACTED]
BCC: [REDACTED]
Subject: RE: CONFIRMATION 7TH JANUARY / COMMUNITY WORKSHOP MEETING / AIRSPACE DESIGN PRINCIPLES

Dear [REDACTED]

Thank you for confirming the community groups' availability for a workshop on Friday 7 January. We will make arrangements and send a Teams invite.

We will send the invite to all HCNF attendees and we would be happy for all HCNF members to attend. Our suggestion that the group might prefer a few people to act as spokesperson was in case the wider group was unavailable.

Thank you for agreeing to send questions and/or observations relating to the proposed design principles before the workshop – this will help us to come fully prepared and for us all to get the most out of the workshop.

Kind regards,

[REDACTED]

[REDACTED] | Airspace Modernisation Programme
Heathrow

From: [REDACTED]
Sent: 17 December 2021 14:16
To: [REDACTED]
Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
Subject: CONFIRMATION 7TH JANUARY / COMMUNITY WORKSHOP MEETING / AIRSPACE DESIGN PRINCIPLES

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

I had suggested the above meeting for the community be pushed back to the end of January.

However I now appreciate that the DFT/CAA timetable is too tight to extend the second workshop so I confirm that Friday 7th January goes ahead as you have proposed.

I believe you mentioned that in order for the workshop meeting to progress constructively a smaller group representing the communities would be more appropriate. Therefore in consultation with the communities/CNG's in HCNF I will propose to them a selected representation to engage with you on behalf of all the communities be formed from those amongst us who have the best knowledge of the technicalities of the Airspace Design Principles. I will consult separately with those copied in and come back to you next week with the line up (probably no more than 6 people to participate – my own knowledge for technicalities is not sufficient so I will exclude myself from the workshop meeting).

We will of course send our observations/questions for your workshop in advance of the 7th January.

Have a good weekend.

Best
[REDACTED]

[REDACTED]

From: DD - Airspace
Sent: 22 December 2021 16:38
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Feedback on proposed design principles for Heathrow's airspace modernisation

Dear [REDACTED]

Thank you for your engagement in our development of design principles for our airspace change. I wanted to let you know that we have received your email and we are considering your suggestion that we include mention of AONBs in our design principles, but that we will have to get back to you in January when we have the full team back from Christmas leave.

We will continue to keep you informed of progress on this airspace change proposal, and we will include the contact addresses you have provided for the Chiltern Society in our list of stakeholders to engage in future. Please note that we did send an invite to our workshop on design principles to a number of AONBs including Planning@chilternsaonb.org (email dated 7 September), however we did not have an attendee from the Chilterns.

Kind regards,
[REDACTED]

[REDACTED] | Airspace Modernisation Programme



From: [REDACTED]
Sent: 07 December 2021 23:21
To: [REDACTED]
Cc: [REDACTED]
Subject: Feedback on proposed design principles for Heathrow's airspace modernisation

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hello,

Thank you for sharing the slides and other information relating to the proposed design principles for Heathrow's airspace modernisation, and the opportunity to provide feedback.

This feedback is provided on behalf of the Chiltern Society – an amenity organisation with 6500-7000 members seeking to protect the wider Chilterns (the AONB and its environs) – for which I am a volunteer.

It is surprising and disappointing that no reference is made within any of the slides to Areas of Outstanding Natural Beauty, of which several, including the Chilterns AONB, are significantly affected by flights from Heathrow. CAP1616 requires that there be consideration of the impacts on AONBs, and that, where practicable, overflight below 7000ft should be minimised. Could you please clarify / confirm whether this was explained at the various workshops, and thus fed into the discussions; and whether the participants in those workshops included representatives from the statutory bodies for AONBs, or community organisations from those areas?

We would also have hoped that the proposed design principles would include, as one of the subsidiary “should also...” aims, something along the lines of “minimise impacts on Areas of Outstanding Natural Beauty and other tranquil areas”. If it is not too late, we would ask you to consider this suggestion.

For the future, as the modernisation process moves through its various stages, could you please check that organisations representing the Chilterns, either the statutory Chilterns Conservation Board, or the member organisation the Chiltern Society, are on your stakeholder list for engagement. The e-mail addresses for the relevant paid Officers of these organisations are cc’d.

Regards,

[REDACTED]
Volunteer for the Chiltern Society

Sent from [Mail](#) for Windows

From: [DD - Airspace](#)

Sent: 02 December 2021 14:33

To: [REDACTED]

Subject: RE: Request clarification re Heathrow's airspace modernisation plans

Dear [REDACTED]

Thank you for your interest in airspace modernisation at Heathrow, and my apologies for the delay in getting back to you.

We are currently at the first stage of the Civil Aviation Authority’s process where we develop “design principles” for the airspace change: we will submit these to the CAA early next year and we will then begin the process of developing design options. The process will take a number of years and will involve stakeholder engagement and public consultation so that we can ensure we capture the views and priorities of potentially affected communities.

I have attached some slides that set out our proposed design principles. These have been developed following workshops with community representatives, Local Authority representatives, industry representatives and environmental groups. The proposed design principles are shown on page 25. You can respond via this email address (airspace@heathrow.com) if you would like to provide feedback or ask any questions.

We will keep our website updated with progress as we make our way through the airspace change process. You may also like to follow our progress via the CAA’s portal, where you can sign up for email updates about this airspace change: [Airspace change proposal public view \(caa.co.uk\)](https://www.caa.co.uk/airspace-change-proposal-public-view)

Many thanks,

[REDACTED]
Stakeholder Engagement Lead for Airspace Modernisation

[REDACTED]

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Hello,

An advert in a local newspaper alerted me to Heathrow starting the process of airspace modernisation. Following the links informed me that it was a new process based around existing runways, and that you are at the design principles stage.

However, although there is a comments form to “provide comments on our Airspace Modernisation plans”, I cannot find any information on what the emerging design principles are, or what we are meant to be commenting on. Could you please explain and / or signpost me to the relevant material.

I am a volunteer for an amenity society (Chiltern Society) which has a legitimate interest in impacts from overflying aircraft, so would like the opportunity to contribute our views.

Thanking you in anticipation,



JANUARY

2022

**Letter to Heathrow Airport Limited
from members of
The Heathrow Community Noise Forum
4 January 2022**

To
cc

Dear

**Ref: Heathrow Airspace Modernisation (FASI South) (ACP-2021-056)
Sponsor: Heathrow; Step 1b Design Principles
Response to Heathrow's Design Principles Stage 2 Workshop**

This letter is sent on behalf of Community Noise Groups and local authority representatives who are members of the Heathrow Community Noise Forum and have added their names at the end of this letter.

We wrote to you on 8 December 2021 stating that we disagree with the set of short-listed Design Principles chosen by Heathrow and recording what we believe has been a failure of the CAP 1616 engagement process between Heathrow as sponsor and ourselves as stakeholders. We thank you for your prompt email response on 9 December seeking to address our points and offering an HCNF virtual meeting on Friday 7 January, to which we have agreed.

We address here, in more detail than in our original letter of 8 December, Heathrow's Design Principles and the contextual slides and the engagement process, taking into account your email of 9 December. For reference purposes, the attached Annex contains Heathrow's proposed Design Principles listed in slide 25 from the November workshops. We would like to focus on this letter at the 7 January meeting but would appreciate it if our letter of 8 December and your response of 9 December could be available also at the meeting.

We remain desirous and willing to enter meaningful consultation with Heathrow on these matters.

Heathrow's Proposed Design Principles – Slide 25 from workshop

1) The Design Principles as drafted do not correctly reflect the Air Navigation Guidance 2017 (ANG17). After Safety, ANG17 requires that Noise and Environment considerations should take priority over all other considerations. ANG17 must be included in the second proposed Principle. After 'Standards.' insert **"This includes ANG 17 and not least para 1.2a: Limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise."**

2) Where operational procedures can be used to reduce noise then they need to be explored and this includes steeper departures and steeper arrivals.

3) All references in the proposed Design Principles with the words 'significantly affected by adverse impacts from aircraft noise' should also include "so as to comply with ANG 17". Any reference in the

Principles to the phrase “number of people” on its own should be removed as this does not comply with ANG17.

4) Regarding the Design Principle concerning climate change and CO2, the asterisked wording in red should be deleted as it conflicts and confuses ANG 17 requirements (which are stated clearly in altitude-based priority policies). After the word ‘Reduce’ insert “as far as possible and in accordance with ANG17” before ‘the contribution.....’

5) Delete the wording ‘Keep the number of people who experience an increase in noise from the future airspace design to a minimum.’ and replace with “No communities should experience an increase in noise as a result of the Airspace Change Process (ACP)”.

6) Fairness is a key consideration and should be included as a Principle. The adverse effects of aviation noise should be shared - not concentrated on individuals or particular communities, as this will lead to significant blight and inequality issues. There is a legal requirement set out in the ANG 17 (para 3.5) “that the total adverse effects on people as a result of aviation noise should be limited and, where possible, reduced, rather than the absolute number of people in any particular noise contour. Adverse effects are considered to be those related to health and quality of life.” This has statutory force as a direction under section 70 Transport Act 2000.

7) Delete the wording ‘Keep the total number of people who experience noise from the future airspace design to a minimum’ and replace it with “Avoid highly concentrated flight paths leading to significant adverse health impacts and property blight”.

8) Whilst the Principle concerning ‘meaningful respite’ is accepted Heathrow has not yet established what this means nor how in practice it is to be achieved for all communities around the airport. This is an essential component of flight path design strategy, and it needs to be clarified how this will be achieved. Respite needs to be effective (with sufficient acoustic separation at ground level) and not theoretical.

9) The differentiation between ‘must’ and ‘should’ in the list of Principles must be removed.

Heathrow’s Proposed Design Principles – contextual slides

10) At the workshop feedback sessions during November the importance of avoiding the creation of highly concentrated flight paths (referred by a former CEO of the CAA as ‘noise sewers’- which based on Heathrow’s own 2014 PBN trials and US Next Gen are known to be highly injurious to health, well-being and quality of life) was discussed. It was confirmed that Heathrow was investigating relevant international examples and the Design Principles slide pack (and consultation material) should be amended to reflect this. Heathrow should commit to reporting in an open and transparent way how detrimental impacts caused by highly concentrated zones will be avoided around Heathrow.

11) A commitment should also be included in the Design Principles to the utilisation of a range of noise metrics (including numbers of noise events and total noise energy) in the development of an ACP. The metrics and thresholds should reflect the latest WHO (2018) and ICAO noise guidance (particularly in relation to non-acoustic factors).

12) Regarding the other slides in the PowerPoint pack presented in November, generally it remains unclear what level of proposed benefits might be delivered by the ACP and how these benefits would actually be delivered. Given that the Design Principles inform the CAA in their decision making on whether an ACP should be accepted, it seems crucial that key elements of how anticipated benefits are to be justified at this stage. For example:

- What are the range of anticipated reductions in carbon emissions under consideration for the ACP?
- What are the expected carbon emission savings from the introduction of PBN in each year of operation up to 2050?
- What are the range of anticipated noise reductions achievable under the ACP?
- What is the expected additional impact on a) fuel burn and b) carbon emissions if compliance to ANG17 is adhered to in terms of the prioritisation of noise below 7,000ft?

13) In terms of comments in the power point slides to carbon being deemed a more concerning issue to certain stakeholder and focus groups, Heathrow should provide some context around the basis of these discussions and in particular how the discourse was framed.

- Did they include an explanation of ANG17 requirements?
- Did they include reference to the number of people impacted by noise currently and/or the number of people who could be adversely impacted by the ACP, in particular under concentrated flight paths?
- Did the discussion provide the option of management of demand growth as a mechanism for reducing carbon?

14) We understand the commercial and economic benefits that can arise from demand growth and improved airspace efficiency resulting in better resilience and punctuality, but it is essential given Heathrow's location in the middle of a highly populated area that this is accompanied by a meaningful and continuous reduction in noise impact on its communities. A reduction in noise needs to be explicitly recognised and accepted by all stakeholders at the outset of the design process.

15) Avoiding uncertainty and long-term blight:

- Communities will be at substantial and ongoing risk that the allocation of flight frequency down each flight path can be changed significantly by the airlines as they wish. This would invalidate any final airspace design and noise environmental impact assessment because noise impact is so sensitive to flight frequency. This risk and uncertainty must be avoided at the start of the airspace modernisation process.
- We understand that Heathrow is basing the ACP on airspace capacity for a 2-runway Heathrow, and we wish to see added for the avoidance of doubt that for ACP purposes this is a 2-runway airport in segregated mode with runway planning capacity limited to 480,000 ATM a year.

The process so far - community engagement

16) Communities, which are already living under the noise burdens created by Heathrow, through interactions with the airport, particularly through the HCNF (since its inception in 2015) and associated workshops have built up a good understanding of the issues which airspace modernisation will entail. Considerable time and effort have been spent in contributing to workshops and putting forward reasoned responses to matrices and other material produced by Heathrow. If submissions and community arguments are not accepted by the airport, at least a reasoned justification to these should be given. So far Heathrow has failed to do this.

17) There is a need for local communities to be able to access and analyse the evidence base that Heathrow uses in developing its ACP. It is not evident how and when such information will be made available during the CAP1616 process.

18) We reiterate that there was an insufficient (and unreasonable amount of) time for communities to consider and respond to the slide pack (between the email on 30 November and the deadline for response on 8 December).

19) We also express our concerns that communities were not given advance sight of the slide pack prior to the second round of workshops despite requests for this to be made available. We believe that the withholding of the proposed Design Principles ahead of the virtual Stage 2 workshops made it impossible to properly assess and question Heathrow on what each Principle meant, how our responses to the Stage 1 matrix had been treated and the rationale for the selection of each Principle.

Yours faithfully,

[REDACTED] Heathrow Community Noise Forum Co-ordinator

[REDACTED] Co-ordinator, HACAN
[REDACTED] Teddington Action Group
[REDACTED] Richmond Heathrow Campaign
[REDACTED] Windsor & Maidenhead Local Authority
[REDACTED] Englefield Green Action Group
[REDACTED] HASRA
[REDACTED] HASRA
[REDACTED] Iver Parish Council
[REDACTED] Plane Hell Action Group, (Dulwich and Surrounding
Area) [REDACTED] Richings Park Residents Association
[REDACTED] The Windlesham Society
[REDACTED] AN3V, Bagshot & Lightwater
[REDACTED] Ealing Aircraft Noise Action Group

Annex: Slide 25 Heathrow Design Principles Stage 2 Workshops

Heathrow's Proposed Design Principles for Airspace Modernisation

	Proposed Design Principles
Our airspace design must	Be safe for all stakeholders
	Remain in accordance with the CAA's published Airspace Modernisation Strategy and any current or future plans associated with it and all other relevant UK Policy, Legislation and Regulatory Standards. This includes preventing any worsening of local air quality due to emissions from Heathrow's aircraft movements, to remain within local authorities' limits
	Use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise
	Reduce the contribution to climate change from CO ₂ emissions, and other greenhouse gases emissions relating to Heathrow's aircraft activities*
	*ANG2017 states that noise is the priority below 7000ft. Providing some types of noise mitigation measures below 7000ft is likely to negatively impact CO ₂ emissions of aircraft in flight. However, the airspace design must still enable overall CO ₂ reductions for the Heathrow operation.
	Enable Heathrow to make the most operationally efficient and resilient use of its existing two runways, to maximise benefits to all stakeholders
And should also	Provide predictable and meaningful respite to those most affected by noise from Heathrow's movements
	Avoid overflying the same communities with multiple routes including those to/from other airports
	Minimise the negative impacts of night flights
	Keep the number of people who experience an increase in noise from the future airspace design to a minimum
	Keep the total number of people who experience noise from the future airspace design to a minimum
	Ensure the efficiency of other airspace users' operations
	Minimise the impact to all stakeholders from future changes

From: DD - Airspace [REDACTED]
Sent on: Tuesday, January 4, 2022 6:13:38 PM
To: DD - [REDACTED]
CC: [REDACTED]
BCC: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
Subject: Additional Workshop invite: Friday 7 January at 10:00 - 12:00
Attachments: 211208 Letter from [REDACTED].pdf (80.14 KB)

Dear Community Group representative,

As some of you will be aware, we have arranged a further workshop to discuss our design principles for Airspace Modernisation. This workshop has been set up to address concerns raised by some Community Group members that they do not agree with the proposed Design Principles shared at the previous set of workshops (letter attached).

We have arranged an Independent Facilitator to chair the workshop. [REDACTED] works for Headland Consultancy and has previously chaired public focus groups on airspace design principles for Heathrow. The Heathrow Airspace and Community teams will also be at the workshop to listen to your concerns and answer your questions.

Please let us know whether you will be attending by responding to this email.

You can join the workshop on Friday by clicking the link below:

From: [REDACTED]
[REDACTED]
To: DD - Airspace <[REDACTED]>
CC: [REDACTED]
[REDACTED]
BCC: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
Subject: Additional Workshop on Design Principles for Airspace Modernisation
Attachments: 211208 Letter from [REDACTED] (80.14 KB), Letter to HAL ref Design Principles 4 Jan 2022 Final.pdf (167.32 KB)

Dear HCNF Member,

As some of you will be aware, we have arranged a further workshop with some Community Group representatives to discuss our design principles for Airspace Modernisation. This workshop has been set up to address concerns raised by some Community Group members that they do not agree with the proposed Design Principles shared at the previous set of workshops (letter attached).

The workshop will take place this Friday (7 January) at 10:00-12:00 and we have arranged an Independent Facilitator to chair the workshop. [REDACTED] works for Headland Consultancy and has previously chaired public focus groups on airspace design principles for Heathrow. The Heathrow Airspace and Community teams will also be at the workshop to listen to concerns and answer questions.

The workshop will focus on the issues raised by [REDACTED] and the other letter signatories in a subsequent letter received on 4 January (also attached). However, you are welcome to attend if you would like to. Please let us know if you like to attend the workshop by responding to this email.

Many thanks,

[REDACTED]

From: DD - Airspace [REDACTED] on behalf of DD - Airspace

Sent on: Wednesday, January 5, 2022 5:59:45 PM

To: [REDACTED]
[REDACTED]

CC: [REDACTED]
[REDACTED]

Subject: RE: Additional Workshop on Design Principles for Airspace Modernisation

Dear [REDACTED]

The workshop will follow the same format as the previous Design Principle workshops and will take place on Teams.

The workshop invite was sent to the signatories of the letter but we wanted to let other HCNF members know that it is taking place in case you wished to join. I'm sorry for the short notice.

Kind regards,

[REDACTED]

From: [REDACTED]

Sent: 05 January 2022 17:47

To: DD - Airspace [REDACTED]
[REDACTED]
[REDACTED]

Subject: Re: Additional Workshop on Design Principles for Airspace Modernisation

Thank you for this – maybe I am missing something but there appears to be no information about where this meeting will take place. It is also frankly very late notice.

Yours,

██████████

██████████

Chairperson

Iver Village Residents' Association

From: DD - Airspace ██████████ on behalf of DD - Airspace

Sent on: Wednesday, January 5, 2022 6:04:54 PM

To: ██████████

Subject: RE: Additional Workshop on Design Principles for Airspace Modernisation

Dear ██████████

Thanks for your email. The workshop invite was originally sent to the signatories of the letter but we wanted to let other HCNF members know that it is taking place in case you wished to join. I'm sorry for the short notice.

You can join the meeting on Friday at 10:00 via the link below.

Many thanks,

██████████

From: ██████████

Sent: 05 January 2022 17:52

To: ██████████

Cc: ██████████

Subject: Re: Additional Workshop on Design Principles for Airspace Modernisation

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

██████████

Thanks for your note re the additional Airspace Change Workshop on Friday 7th.

Despite the short notice I confirm that I will be attending the workshop.

Regards;

██████████

From: DD - ██████████ on behalf of DD - Airspace

Sent on: Thursday, January 6, 2022 5:32:29 PM

To: ██████████

Subject: RE: Additional Workshop invite: Friday 7 January at 10:00 - 12:00

Dear ██████████

I think today's meeting went very well on both the communities and industry's exchanges. I don't seem to have our chairperson [REDACTED] email address so I wonder if you could pass this on to him.

May we receive the fully minuted report on the meeting by the end of next week please and then if there are any related items as a result of today's meeting we can incorporate them in the communities slot at the next formal HCNF meeting at the end of January (please confirm the date and time as at present I cannot lay hands to it).

Thanks in advance.

Have a good weekend.

Best

[REDACTED]

From: DD - [REDACTED] on behalf of DD - Airspace

Sent on: Friday, January 14, 2022 5:48:27 PM

To: [REDACTED]

CC: [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

BCC: pa [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Subject: Heathrow response to letter from CNG Representatives

Attachments: 220114_HAL Response to CNG letter of 4 January.pdf (317.54 KB), Letter to HAL ref Design Principles 4 Jan 2022 Final.pdf (167.32 KB)

Dear [REDACTED] and other CNG representatives,

Please find attached a written response to the letter of 4 January, as promised. I hope this helps to clarify some of the issues raised regarding our design principles for airspace modernisation.

Thanks again to those of you who participated in our additional workshop on design principles last Friday - I will also forward you the meeting note produced by Headland as independent facilitator to the meeting.

Many thanks,

[REDACTED]

[REDACTED] | Airspace Modernisation Programme

14 January 2022

Re: Community Noise Group engagement on Heathrow's Design Principles for Airspace Modernisation

Dear [REDACTED]

Thank you for the letter you sent us on 4 January, on behalf of some of the community noise group (CNG) representatives. We are grateful for your ongoing engagement on this topic and for the constructive discussions held in the additional workshop on Friday 7 January. As promised, we have provided a written response to each of your queries and issues below.

We have also set out our current proposed design principles, following the changes that we agreed to consider at last week's workshop. Based on discussions at the workshop we have also:

- Added a reference to Air Navigation Guidance (ANG) to DP2;
- Added supporting text in our submission document for DP3, relating to consideration of steeper approaches and steeper departures;
- Deleted the proposed asterisked text from DP4 (which related to ANG altitude-based priorities);
- Added supporting text in our submission document for DP6, referring to the importance of defining respite and the work Heathrow is undertaking on this issue; and
- Committed to reporting back to the HCNF on the independent research undertaken on PBN implementation benchmarking.

As mentioned in the workshop, these are now finalised in terms of stakeholder feedback but are subject to approval or change through the Heathrow governance process, since these still need to be reviewed by the relevant Heathrow leads. We will share our final design principles for this ACP with you at the HCNF meeting on 26 January.

Heathrow's Proposed Design Principles for Airspace Modernisation (14 January 2022)		
Our airspace design must	Be safe for all stakeholders	DP1
	Our airspace design must remain in accordance with the CAA's published Airspace Modernisation Strategy and any current or future plans associated with it and all other relevant UK Policy, Legislation and Regulatory Standards (for example, Air Navigation Guidance) . This includes preventing any worsening of local air quality due to emissions from Heathrow's aircraft movements, to remain within local authorities' limits	DP2
	Use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise	DP3
	Reduce the contribution to climate change from CO2 emissions, and other greenhouse gas emissions relating to Heathrow's aircraft activities	DP4
	Enable Heathrow to make the most operationally efficient and resilient use of its existing two runways, to maximise benefits to the airport, airlines and cargo handlers, passengers, and local communities	DP5
And should also	Provide predictable and meaningful respite to those affected by noise from Heathrow's movements	DP6
	Avoid overflying the same communities with multiple routes including those to/from other airports	DP7
	Minimise the negative impacts of night flights	DP8
	Keep the number of people who experience an increase in noise from the future airspace design to a minimum	DP9
	Keep the total number of people who experience noise from the future airspace design to a minimum	DP10
	Enable the efficiency of other airspace users' operations	DP11
	Minimise the impact to all stakeholders from future changes to Heathrow's airspace	DP12

Issues raised in the CNG letter of 4 January are set out below in blue text. Heathrow has then provided a response to each point below.

Kind regards,

■

■

Stakeholder Engagement Lead for Airspace Modernisation
Heathrow Airport Ltd

1) The Design Principles as drafted do not correctly reflect the Air Navigation Guidance 2017 (ANG17). After Safety, ANG17 requires that Noise and Environment considerations should take priority over all other considerations. ANG17 must be included in the second proposed Principle. After 'Standards.' insert **"This includes ANG 17 and not least para 1.2a: Limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise."**

Our proposed Design Principle 2 (DP2) is intended to cover all of the policy, legislation and regulatory standards that we will need to meet through this airspace design. The Government's Air Navigation Guidance (ANG) is one of the primary policies that we will need to meet through our new airspace design and is implicit within this design principle. However, we recognise that some of the CNGs would like reassurance that our future airspace design will meet ANG and we have therefore amended this design principle to refer explicitly to ANG. The new text is shown in bold below:

"Our airspace design must remain in accordance with the CAA's published Airspace Modernisation Strategy and any current or future plans associated with it and all other relevant UK Policy, Legislation and Regulatory Standards (**for example, Air Navigation Guidance**). This includes preventing any worsening of local air quality due to emissions from Heathrow's aircraft movements, to remain within local authorities' limits."

2) Where operational procedures can be used to reduce noise then they need to be explored and this includes steeper departures and steeper arrivals.

This is covered by our proposed DP3, which states that "our airspace design must use noise efficient operational practices to limit and, where possible, reduce adverse impacts from aircraft noise". Steeper departures and steeper arrivals are two of the operational practices we will consider, but we have not explicitly mentioned these in the design principle since:

- a) It is not appropriate for Heathrow to jump to solutions within the design principles phase. As stated in CAP1616, our design principles set out the objectives and criteria that our airspace design should (or must) meet. Our objective here is to incorporate noise efficient operational practices into the design, and steeper approaches and/or departures are two of the potential practices we might include in the solution; and
- b) The noise impacts of steeper approaches and departures need to be explored further to identify the gradients that have the lowest overall noise impact. This is work that will be undertaken at Stage 2.

However, we recognise that some of the CNGs would like reassurance that our future airspace design will include steeper approaches and steeper departures where beneficial for noise reduction, and we have therefore added supporting text to this design principle in our submission that states:

"This includes consideration of steeper approaches and steeper departures."

3) All references in the proposed Design Principles with the words 'significantly affected by adverse impacts from aircraft noise' should also include "so as to comply with ANG 17". Any reference in the Principles to the phrase "number of people" on its own should be removed as this does not comply with ANG17.

None of our proposed design principles include the reference "significantly affected by adverse impacts from aircraft noise".

We have used the phrase “number of people” in DP9 and DP10. This wording is used to reflect the key noise objective set out in ANG and to ensure we consider all people who experience noise, not just those overflowed up to 4000 feet. Overflight contours that show the people overflowed are part of a suite of metrics presented in CAP1616.

The first of the three environmental objectives set out in ANG is: *“a) limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise”* (the other two environmental objectives relate to carbon and air quality). Paragraph 3.5 of ANG goes on to state that *“For the purpose of assessing airspace changes, the government wishes the CAA to interpret this objective to mean that the total adverse effects on people as a result of aviation noise should be limited and, where possible, reduced, rather than the absolute number of people in any particular noise contour”*. ANG goes on to say that adverse effects *“begin to be seen on a community basis”* at a Lowest Observed Adverse Effect Level (LOAEL). The LOAEL is then defined by Government as *“51dB LAeq16hr for daytime noise and 45dB LAeq8hr for night time noise”* which produces an area that is predominantly overflowed by aircraft below 4000 feet. Heathrow recognises that some of the local communities annoyed by aircraft noise are overflowed by aircraft above 4000 feet. As the impacts within these areas are likely to be beyond the LOAEL, they would not be considered by the DfT’s WebTAG methodology for valuing the impacts of noise on health and quality of life. We therefore also want to capture effects relating to total numbers overflowed to ensure that areas overflowed by aircraft above 4000 feet are accounted for.

Heathrow will investigate options to meet the first ANG environmental objective through application of DPs 3, 5, 6, 7, 8, 9 and 10. All of these design principles aim to reduce the total adverse effects on people as a result of aviation noise (i.e., health and quality of life impacts measured within the LOAEL), and also to reduce noise impacts for people outside the LOAEL.

DP9 and DP10 consider all communities affected by aircraft noise (up to overflight at 7000 feet), not just those located within the LOAEL. This means we will consider the total number of people rather than being restricted to adverse effects given adverse effects refer only to health and quality of life impacts measured within the LOAEL.

Heathrow will provide a range of metrics to show the forecast impacts of different design options and, in accordance with the latest ANG and CAP1616, these will include:

- impacts on health and quality of life (using WebTAG methodology);
- number of people overflowed;
- number of overflights;
- noise contours (N65 for daytime noise and N60 for night time noise); and
- other metrics still to be determined, such as frequency of overflight.

We will share more information on our approach to assessing different design options, and the metrics we will use, at Stage 2 of the CAP1616 airspace design process.

4) Regarding the Design Principle concerning climate change and CO2, the asterisked wording in red should be deleted as it conflicts and confuses ANG 17 requirements (which are stated clearly in altitude-based priority policies). After the word ‘Reduce’ insert “as far as possible and in accordance with ANG17” before ‘the contribution.....’

This refers to DP4, which sets out Heathrow's commitment to reducing CO₂ through the new airspace design.

The asterisked wording was added below the design principle in recognition of the ANG altitude-based priorities, since we recognise that ANG prioritises noise over carbon below 7000 feet and we wanted to be open and transparent about the fact that we will need to take account of this in the design. However, Heathrow is committed to reducing carbon emissions *as well as* meeting the ANG requirements.

Following discussions with the CNG representatives in the workshop, we have removed the asterisked text from the design principle. This statement regarding the ANG requirements will instead be included as part of our submission to the CAA.

We were also asked in the workshop to consider including the text "as far as possible" within DP4. The team discussed this at length, and it was decided that this text would introduce a degree of ambiguity into the design principle: some stakeholders would interpret it to mean that we are only committing to reduce carbon if we find it is possible to do so, whereas others would interpret it to mean that we are committing to reduce carbon as far as we possibly can. We felt this ambiguity would be unhelpful to our stakeholders, to the CAA and to our airspace designers who need design principles to be clear and transparent in order to evaluate flight path options against them.

5) Delete the wording 'Keep the number of people who experience an increase in noise from the future airspace design to a minimum.' And replace with "No communities should experience an increase in noise as a result of the Airspace Change Process (ACP)".

This refers to DP9, which is there to ensure that airspace designers consider noise increases both for those currently overflown and for those potentially newly overflown.

It would not be honest or transparent for us to amend the wording of this to "no communities should experience an increase in noise" since changes in noise levels are inevitable with any airspace change. We would not therefore be able to design our new airspace in accordance with this design principle.

6) Fairness is a key consideration and should be included as a Principle. The adverse effects of aviation noise should be shared – not concentrated on individuals or particular communities, as this will lead to significant blight and inequality issues. There is a legal requirement set out in the ANG 17 (para 3.5) "that the total adverse effects on people as a result of aviation noise should be limited and, where possible, reduced, rather than the absolute number of people in any particular noise contour. Adverse effects are considered to be those related to health and quality of life." This has statutory force as a direction under section 70 Transport Act 2000.

"Fairness" is a key consideration throughout all of the proposed design principles. For example, we have principles that consider local resident priorities of noise, environmental concerns around carbon, and industry priorities around efficient use of airspace. Our design principles also consider those currently affected by noise and those potentially newly affected. However, we have not included the word "fairness" explicitly in our design principles since fairness is a subjective term and one person's idea of a "fair" airspace design option will be different to another person's. It would not be possible for us to evaluate design options against such a subjective term.

As set out in response to (1) above, our airspace design will need to meet the requirements set out in the Government's ANG and we have amended DP2 to explicitly mention this requirement.

7) Delete the wording 'Keep the total number of people who experience noise from the future airspace design to a minimum' and replace it with "Avoid highly concentrated flight paths leading to significant adverse health impacts and property blight".

This refers to DP10, which is there to ensure our airspace designers consider the overall impacts of the future airspace design, in addition to other design principles which are intended to deliver more specific noise benefits (DP3, DP6, DP7, DP8, DP9).

The use of performance-based navigation (PBN) is a key requirement of airspace modernisation, and some degree of concentration is inevitable with PBN. It would not therefore be appropriate for us to include a design principle to "avoid highly concentrated flight paths". However, the accuracy of PBN gives us the capability to potentially mitigate noise impacts better than we can today, including enabling us to provide predictable and meaningful respite to those most affected by noise (DP6).

We will need to consider the potential health impacts of the future airspace design in accordance with ANG and with CAP1616 requirements. This is covered by DP2.

There is no guidance or policy relating to property blight within ANG2017 or CAP1616.

8) Whilst the Principle concerning 'meaningful respite' is accepted Heathrow has not yet established what this means nor how in practice it is to be achieved for all communities around the airport. This is an essential component of flight path design strategy, and it needs to be clarified how this will be achieved. Respite needs to be effective (with sufficient acoustic separation at ground level) and not theoretical.

This refers to DP6, which recognises that predictable and meaningful (noticeable) respite from aircraft noise is a key priority of our overflown communities.

We understand the importance of respite being meaningful and Heathrow has engaged noise experts to assess appropriate definitions of respite. This work has been reported on via the HCNF and the findings will be available (and shared with the CNGs) before we evaluate design options.

9) The differentiation between 'must' and 'should' in the list of Principles must be removed.

This refers to the fact that our design principles are in two groups; DPs 1-5 start with "our airspace design must" and DPs 6-12 start with "and should also". This distinction is made to show which of the design principles are requirements that we must deliver on. DPs 1-5 either relate to policy or regulation (DP1, DP2) or to a mandatory requirement that Heathrow is placing on the design. DP3 is a noise commitment, DP4 is a carbon commitment and DP5 is a business need and a commitment that should offer benefit to a range of stakeholders, including local communities. These design principles are binary in that each design option will be assessed to determine whether it meets each of these principles (i.e., yes or no) and options that do not meet all of these five design principles will be discontinued.

Airspace design options will also be evaluated against DPs 6-12, and an assessment will be made on how well each design principle is met. We will need to demonstrate how well our shortlisted design options meet each of these principles, but an option will not necessarily be discontinued for not fully meeting one of these principles if it is found to be a generally high scoring option across the full set of design principles.

Heathrow's Proposed Design Principles – contextual slides

10) At the workshop feedback sessions during November the importance of avoiding the creation of highly concentrated flight paths (referred by a former CEO of the CAA as 'noise sewers'- which based on Heathrow's own 2014 PBN trials and US Next Gen are known to be highly injurious to health, well-being and quality of life) was discussed. It was confirmed that Heathrow was investigating relevant international examples and the Design Principles slide pack (and consultation material) should be amended to reflect this. Heathrow should commit to reporting in an open and transparent way how detrimental impacts caused by highly concentrated zones will be avoided around Heathrow.

The use of performance-based navigation (PBN) is a key requirement of airspace modernisation and some degree of concentration is inevitable with PBN. However, we recognise the concerns of some of our local communities and we are looking to introduce PBN in a manner that avoids significant adverse effects to communities.

Heathrow also commissioned an independent report on PBN, undertaken by Taylor Airey. This report considered international examples of PBN implementation and lessons learned. Heathrow will share the findings of this report via the HCNF and will take account of these findings when developing the new airspace design. We will also continue to engage with CNGs on the developing airspace design, and potential impacts, throughout the airspace design process.

11) A commitment should also be included in the Design Principles to the utilisation of a range of noise metrics (including numbers of noise events and total noise energy) in the development of an ACP. The metrics and thresholds should reflect the latest WHO (2018) and ICAO noise guidance (particularly in relation to non-acoustic factors).

Heathrow will need to give the CAA a range of metrics relating to our airspace design options. These metrics will be used to justify the decisions that Heathrow takes and for the CAA to base their ultimate decision on whether to approve or reject our proposals.

The metrics that we propose to use will be shared with stakeholders at Stage 2 of the process but are not relevant to defining our design principles. There will be an opportunity for CNGs to share their views on the proposed metrics and potentially for Heathrow to generate metrics in addition to those mandated by CAP1616.

12) Regarding the other slides in the PowerPoint pack presented in November, generally it remains unclear what level of proposed benefits might be delivered by the ACP and how these benefits would actually be delivered. Given that the Design Principles inform the CAA in their decision making on whether an ACP should be accepted, it seems crucial that key elements of how anticipated benefits are to be justified at this stage. For example:

- What are the range of anticipated reductions in carbon emissions under consideration for the ACP?
- What are the expected carbon emission savings from the introduction of PBN in each year of operation up to 2050?
- What are the range of anticipated noise reductions achievable under the ACP?
- What is the expected additional impact on a) fuel burn and b) carbon emissions if compliance to ANG17 is adhered to in terms of the prioritisation of noise below 7,000ft?

We are currently at the design principles stage and it is too early for us to know what benefits might be achievable until we start appraising design options. The appraisals begin in Stage 2 and the potential range of benefits and impacts will be shared with CNGs at this stage.

13) In terms of comments in the power point slides to carbon being deemed a more concerning issue to certain stakeholder and focus groups, Heathrow should provide some context around the basis of these discussions and in particular how the discourse was framed.

- Did they include an explanation of ANG17 requirements?
- Did they include reference to the number of people impacted by noise currently and/or the number of people who could be adversely impacted by the ACP, in particular under concentrated flight paths?
- Did the discussion provide the option of management of demand growth as a mechanism for reducing carbon?

Focus groups were held with randomly selected members of the public, in areas that are currently overflowed by aircraft to/from Heathrow. The focus groups were independently organised and chaired by Headland.

One of the points of discussion at the focus groups was whether the attendees would prioritise the reduction of noise or the reduction of carbon, if faced with a simple trade-off between the two issues. Headland did not describe ANG altitude-based priorities because the purpose of this discussion was to initiate discussion on the priority objectives of our local communities. This question was also asked at focus groups held during the Expansion ACP and it was therefore possible to test how community views may have changed given the greater public interest in carbon and climate change issues over the past couple of years.

Headland produced an independent report on the findings of the focus groups, and this will be shared within our CAA submission as evidence of the stakeholder engagement we have undertaken in developing these design principles.

14) We understand the commercial and economic benefits that can arise from demand growth and improved airspace efficiency resulting in better resilience and punctuality, but it is essential given Heathrow's location in the middle of a highly populated area that this is accompanied by a meaningful and continuous reduction in noise impact on its communities. A reduction in noise needs to be explicitly recognised and accepted by all stakeholders at the outset of the design process.

Heathrow recognises the importance of minimising noise impacts and DP3, DP6, DP7, DP8, DP9 and DP10 all relate to the considerations that our airspace designers will need to make in terms of minimising noise impacts.

15) Avoiding uncertainty and long-term blight:

- Communities will be at substantial and ongoing risk that the allocation of flight frequency down each flight path can be changed significantly by the airlines as they wish. This would invalidate any final airspace design and noise environmental impact assessment because noise impact is so sensitive to flight frequency. This risk and uncertainty must be avoided at the start of the airspace modernisation process.

The CAP1616 process includes a 'Post Implementation Review' (PIR) which is undertaken by the CAA approximately 12 months after the implementation of the airspace change. The purpose of the review is for the airport to carry out a rigorous assessment, and the CAA to evaluate, whether the anticipated impacts and benefits are as expected, and where there are differences, what steps are required to be taken. The PIR will consider the frequency of use of each flight path.

CAP1616 also recognises the importance of being transparent with local communities about changes to noise effects over time. Pages 139-145 set out guidance on the type of information that airports might share with their local communities.

Heathrow reports annually on flight path loadings and publishes reports on our website. Flight path usage also directly affects the noise contours we publish. A wide range of reports and tools are available on our website at: <https://www.heathrow.com/company/local-community/noise>

Longer term changes to global demand patterns are outside Heathrow's control but we will forecast demand for routes as best we can to ensure that the airspace design that we develop is operationally efficient (DP5) and we will need to be open and transparent about any changes to flight frequency.

- We understand that Heathrow is basing the ACP on airspace capacity for a 2-runway Heathrow, and we wish to see added for the avoidance of doubt that for ACP purposes this is a 2-runway airport in segregated mode with runway planning capacity limited to 480,000 ATM a year.

This ACP is based on our existing two runways. Heathrow has no current plans to introduce mixed mode and this ACP is therefore based on primarily using one runway for arrivals and one runway for departures (with runway alternation to provide respite to overflown communities). There would be a separate process required if Heathrow was to introduce mixed mode or to increase capacity above 480,000 ATMs per year.

The process so far - community engagement

16) Communities, which are already living under the noise burdens created by Heathrow, through interactions with the airport, particularly through the HCNF (since its inception in 2015) and associated workshops have built up a good understanding of the issues which airspace modernisation will entail. Considerable time and effort have been spent in contributing to workshops and putting forward reasoned responses to matrices and other material produced by Heathrow. If submissions and community arguments are not accepted by the airport, at least a reasoned justification to these should be given. So far Heathrow has failed to do this.

We appreciate the time and effort that the CNG representatives put into engaging with us on issues relating to airspace modernisation and airspace change. We have used a combination of workshops and written material to communicate our rationale for the proposed design responses and hope that this response to your letter provides greater clarification.

17) There is a need for local communities to be able to access and analyse the evidence base that Heathrow uses in developing its ACP. It is not evident how and when such information will be made available during the CAP1616 process.

Updates on our developing airspace design options and analysis will be shared via the public CAA Portal. Analysis and data will also be shared with the general public at public consultation during Stage 3 of the process, and with known stakeholders (such as HCNF members) at various stages during Stage 2 of the process. We are developing a timeline for engagement and hope to share this with you soon.

18) We reiterate that there was an insufficient (and unreasonable amount of) time for communities to consider and respond to the slide pack (between the email on 30 November and the deadline for response on 8 December).

We have accepted all feedback received following the Phase 2 workshops up until this point and we have also taken account of further feedback received prior to, and during, the workshop on 7 January.

19) We also express our concerns that communities were not given advance sight of the slide pack prior to the second round of workshops despite requests for this to be made available. We believe that the withholding of the proposed Design Principles ahead of the virtual Stage 2 workshops made it impossible to properly assess and question Heathrow on what each Principle meant, how our responses to the Stage 1 matrix had been treated and the rationale for the selection of each Principle.

The workshops are intended to be collaborative sessions where Heathrow and stakeholders openly discuss ideas, ask questions and clarify misunderstandings. There is a risk in sending out slides on such a technical subject before the workshops as things can be misinterpreted leading to confusion and distracting from the focus of the workshops. It is also beneficial to provide the information to all attendees at the workshop to avoid the risk of two-tier discussions where some attendees have read and understood the material and others have not.

We will take account of your request for slide packs to be sent in advance of workshops and will consider whether it is appropriate for us to give earlier sight of slide packs for future engagement sessions.

From: [REDACTED]
Sent on: Friday, January 14, 2022 5:52:24 PM
To: [REDACTED]
CC: [REDACTED]
BCC: [REDACTED]
Subject: FW: Report from 7 January workshop
Attachments: Heathrow airspace change - Headland workshop report.pdf (229.49 KB)

Dear All,

Please see below email (and attached workshop report) from [REDACTED] at Headland. You may have already received this via [REDACTED] but I wanted to ensure it got to you today, as promised.

If you have any questions or issues with anything in the workshop report then please let both [REDACTED] and me know.

Many thanks – and have a nice weekend,
[REDACTED]

From: [REDACTED]
Sent: 14 January 2022 15:39
To: Pa [REDACTED]
[REDACTED]
Subject: Report from 7 January workshop

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED] and Heathrow representatives,

Thank you again for attending the workshop on 7 January – it was a pleasure to chair the discussion.

As promised, I attach a minute of the meeting. Please let me know if you have any questions.

From: DD - Airspace
26 January 2022 11:41

Subject: RE: COMMUNITY PRESENTATIONS HCNF MEETING 26TH JANUARY 1.30 P.M. - 4 P.M.

Dear [REDACTED]

Thank you for your letter of 24 January, following the additional workshop we held with the Community Noise Groups (CNGs) to discuss our proposed design principles.

I have answered each point in your letter below. I have also attached the Headland report on resident focus groups, as requested.

Many thanks,
[REDACTED]

1. **Proposed amendments to Headland's minutes**

a. Headland's minutes from the workshop include:
"2.3 Outcome: Heathrow to update DP2 to include explicit reference to the ANG, which was accepted by the CNGs."

You have requested that this is amended to:

"2.3 Outcome: While there was a narrowing of differences with regard to the reference to ANG17 in DP2, HAL would consider the wording further"

As discussed in the workshop (and in our written response to your letter) Heathrow will need to follow Air Navigation Guidance in our airspace design work: this is fundamental Government policy on how airspace should be designed and how the CAA should undertake its duties in approving airspace change proposals. We did not therefore feel it was necessary to refer to ANG in our design principles since it is covered by "all relevant UK Policy, Legislation and Regulatory Standards" within DP2. However, during the workshop discussion we agreed to explicitly mention ANG in this DP since it was clear that this would give the CNGs some reassurance. We are unable to refer explicitly to ANG **2017** in our design principles since we would need to abide by a later version of ANG if the Government was to revise its guidance.

The Headland meeting note reflects the discussion and the outcome and our DP2 now refers explicitly to ANG as requested by the CNGs.

b. Headland's minutes from the workshop include:
"9.1 Teddington Action Group: Stated that CNGs were sensitive to references to "numbers of people", as historically noise impact was measured as a "numbers game", with no reference to the scale of impact. Requested that the principle be "no new people affected by noise". Referred back to the point made at 0.4, the need for Heathrow to understand and report on the nature of adverse impacts from noise."

You have requested two amendments to this (shown in bold):

“Stated that **all references to ‘numbers of people’ in the DPs should be removed** (and that) CNGs were sensitive to references to “numbers of people”, as historically noise impact was measured as a “numbers game”, with no reference to the scale of impact. **Requested that the principle be “no new people affected by noise”.** In referring to the communities’ proposed DP – ‘no new people should be affected by noise’, this was qualified by an overall consideration that no community currently impacted by noise should be exposed to greater noise levels as a result of airspace modernisation. Referred back to the point made at 0.4, the need for Heathrow to understand and report on the nature of adverse impacts from noise.”

We agree that this proposed amendment reflects the contributions from Teddington Action Group in the workshop and we will pass this request on to Headland so that they can revise the minutes.

2. CNG updated proposal for DP2

You propose some alternative text for DP2 in your letter. Your text quotes the environmental objectives set out in section 1.2 of the ANG17 guidance and states that *“Heathrow will provide the data and research material to the CAA to enable it to verify that all environmental factors have been considered in line with relevant government policy reflected in the Air Navigation Guidance 2017”*.

As mentioned above, Heathrow will need to abide by ANG, including the environmental objectives set out in section 1.2. It is not necessary for us to quote these objectives (or any other statutory policy or regulatory objectives) within the design principles since they are statutory requirements rather than “principles”.

To comply with ANG, we will need to provide data for the CAA to assess whether we have adequately considered the environmental objectives set out in section 1.2. However, it is not appropriate to refer to analysis or data requirements within the design principles since the principles are intended to guide the airspace designers by setting out the range of safety, environmental and operational criteria and the strategic policy objectives that our airspace design aims to meet.

3. Clarification sought from HAL on a couple of issues regarding optioneering

a. You request clarification on the baseline that will be applied by Heathrow when considering design principles that will “reduce” or “increase” something (i.e. DP3, DP4 and DP9). CAP1616 states that for the purpose of our options appraisal assessment “proposals should be assessed over a 10-year period” (paragraph E38) i.e. the implementation year plus 10 years. Our baseline will therefore include noise levels for each year in a 10 year period (currently expected to be 2029-2038, based on an implementation date in 2028 and if 2029 were the first full calendar year of implementation). The baseline will include forecast changes in fleet mix and schedule, and we will present baseline noise results for these years assuming we were to maintain the current airspace design. We will then apply the same fleet and schedule forecasts to the airspace design options so we can compare between the design options and the baseline for each year and for the 10 year period in total.

DP4 refers to a reduction in Heathrow’s contribution to CO₂ emissions. For this DP we will also seek to align our analysis with Heathrow’s broader plans for NetZero, and are therefore currently considering an additional assessment for carbon, using a baseline of around 2019.

b. You ask whether we will be seeking to optimise our design to meet these principles at an aggregate level (i.e. across the whole of Heathrow’s flight paths) or at a more granular level (i.e. by envelope or by flight path). You also ask how flight paths at neighbouring airports will be accounted for.

We would aim to optimise across the whole operation however, there may be instances where applying different optimisations to different parts of the design could produce greater overall benefit.

The methodology for taking account of routes to/from neighbouring airports is to be set out in various iterations of the CAA’s Airspace Change Masterplan with Iteration 2 expected to be published in Q1 this year.

CAA's Acceptance criteria states:

"At Iteration 2 we expect the masterplan to illustrate how effective trade-off decisions between options can be made by providing example case-study assessments of the potential implications of deploying different solutions to manage interdependencies.

Later iterations of the masterplan will be developed in greater detail with more information about the cumulative impacts of different design choices and the methods used to calculate them. These will culminate in a final iteration consisting of a coordinated plan showing how effective trade-off decisions derived from the various options for a modernised airspace design will together deliver government policy objectives."

In practise, this means that airports that have route options with dependencies on each other will need to align at Stage 3 of the process (which is when statutory public consultation takes place).

The CAA goes on to say:

"Sponsors will be unable to progress through the Stage 3 gateway of the CAP 1616 process until the system-wide airspace design of the proposed options, and the cumulative impacts of those options, are represented in an accepted Iteration 3 of the masterplan.... This means that interdependencies between airspace change proposals must be clear, airspace design trade-offs described, and potential solutions explored conceptually. The individual sponsors' consultations must also therefore be able to explain the cumulative impacts of their proposals and the methods used to calculate them in an accessible way for stakeholders."

4. Taylor Airey report on PBN and Headland report on Focus Group findings

You request receipt of these two documents.

The Headland report on Focus Group findings is attached to this email. This will form an Appendix to our Design Principle submission to the CAA and will be available on the portal. The focus groups were undertaken to gauge the views of local communities who do not currently engage with Heathrow on noise issues to ensure our design principles reflect the broader views of those potentially affected by this ACP.

The Taylor Airey report on PBN will be presented by Taylor Airey at an upcoming HCNF.

5. Engagement Strategy for Stage 2

Thank you for your list of topics for engagement during Stage 2 of the ACP. As discussed at the workshop, we are currently developing our plans for Stage 2, including stakeholder engagement, and we will consider your list in our engagement plan. We will provide you with a timeline of our plans for Stage 2 engagement at a future HCNF.

[REDACTED]

From:
To:
Cc:
Subject:

[REDACTED]
HEATHROW AIRSPACE MODERNISATION

Dear [REDACTED]

We have considered your letter of 14th January and Headland's minutes, for which many thanks, and respond to these in the letter attached.

Kind regards
[REDACTED]

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**Letter to Heathrow Airport Limited
from members of
The Heathrow Community Noise Forum
24 January 2022**

To
cc

Dear

**Ref: Heathrow Airspace Modernisation (FASI South) (ACP-2021-056)
Sponsor: Heathrow; Step 1b Design Principles**

This letter is sent on behalf of Community Noise Groups (CNG) who undersigned the letter to you dated 4 January 2022. We held a well attended virtual meeting on 19 January and the consensus of those present was in full support of the content of this letter.

Thank you for your letter of 14 January providing responses to each of the points raised in our 4 January letter and at our virtual meeting with HAL on 7 January and thank you for the set of proposed Design Principles, as amended following our discussions and your further consideration. Also, thank you for circulating Headland's Minutes of the 7 January meeting.

This letter:

- Seeks correction to two matters within the Minutes,
- Proposes an update to DP2,
- Seeks clarification from HAL on a couple of issues regarding optioneering,
- Seeks early receipt of the Taylor Airey Report on PBN and the Headland report on Focus Group findings,
- Makes a request for HAL to include component blocks identified at our meeting (and others) in its engagement strategy for Stage 2 optioneering.

1. Proposed amendments to Headland Minutes

We would like two changes to be made to the Minutes.

2.3 Outcome.

As Minuted - *'Heathrow to update DP2 to include explicit reference to the ANG, which was accepted by the CNGs.'* We suggest the Minute be replaced with *"While there was a narrowing of differences with regard to the reference to ANG17 in DP2, HAL would consider the wording further"*. Correction Context: In our 4 January letter we proposed wording for DP2, which was not accepted by HAL at the 7 January meeting. While there was a narrowing of differences at the meeting we believe it was left open for HAL to consider further and therefore at the meeting we had not accepted HAL's proposals for DP2, and in particular the wording incorporated in the subsequently issued revised DP2.

Section 2 below and the Appendix attached here provide an explanation and updated proposal for DP2.

9.1 Teddington Action Group.

Before the first sentence add a new sentence *"All references in the DPs to 'numbers of people' should be removed."* Correction context: Heathrow's proposed wording conflicts with ANG that requires ACPs to be assessed having regard to their significant adverse impact assessed on the basis of health and quality of life considerations.

The second sentence of 9.1 should be stated as follows *"In referring to the communities' proposed DP - 'no new people should be affected by noise', this was qualified by an overall consideration that no community currently impacted by noise should be exposed to greater noise levels as a result of airspace modernisation"*.

2. CNG updated proposal for DP2

We do not agree with the reference that ANG 17 should be treated as an 'example' as suggested in the updated DP2, as ANG has statutory effect, binding the CAA in how it determines Heathrow's modernisation proposals. Other documents covered in the current drafting of DP2, whilst relevant, have a different connotation and this should be made clear in the DPs (against which airspace options will be devised and evaluated).

Please see the Appendix attached here setting out the context and proposed wording for Design Principle 2.

3. Clarification sought from HAL on a couple of issues regarding optioneering

- a. Design Principles - DP3, DP4 and DP9 use the words 'reduce and increase' but without stating the comparison or benchmark. Is it Do-Nothing (e.g. 2019 legacy) or Do-Something (e.g. annual comparison to say 2040 with noise/CO2 levels, etc. after fleet replacements with more modern aircraft) or some other benchmark including zero that provides absolute amounts?
- b. Does optioneering using the DPs and Policy aim to achieve 'global' optimisation (i.e. across the whole Study Area around Heathrow involving all flight paths) or sub-optimisation (e.g. using envelopes, modes or even single flight paths)?

How will neighbouring airports using common airspace with Heathrow be brought into the optimisation?

Global optimisation could result in sub-optimal flight paths in terms of efficiencies and environmental impacts. But the aggregate outcome of granular envelope or individual flight path optimisation could be less than optimal overall.

4. Taylor Airey Report on PBN and the Headland report on Focus Group findings

Our 4 January letter requested reports and underlying consultation data from HAL. HAL says it will share the Taylor Airey Report on PBN and the Headland Report on Focus Group findings (see HAL's 14 January Response (points (10) and (13), respectively). We would appreciate receipt of these as soon as possible.

5. Engagement strategy for Stage 2 optioneering component blocks

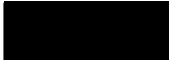
Headland's Minute 3.3, bullet point 4, refers to a question we put to HAL on the milestones and timetable for the optioneering process. We understand this is being developed by HAL. During the 7 January meeting there were a number of component blocks discussed briefly, and there will be others, which we seek to have explicitly included in the process, namely and in no order of priority:

- a. Meaningful respite,
- b. PBN,
- c. The adverse impact on health and quality of life of those significantly affected,
- d. Inclusion in the design process of communities affected by noise at lower noise levels,
- e. Noise, CO2 and pollutant metrics, measurements, modeling, evaluation and trade-offs,
- f. Steeper ascents and descents,
- g. Night flights,
- h. Airspace modernisation Impact Statement (cost/benefit assessment of efficiencies, punctuality, resilience and environmental impact, etc.),
- i. Safety Case,
- j. Timeline for reductions at source in noise, CO2 and pollutants from introducing new modern aircraft into the Heathrow fleet to say 2040,
- k. Allocation of flight frequencies to compass directions of travel to/from Heathrow and to modes and flight paths.

We would appreciate engagement with HAL on these and other component blocks and their inclusion in the Stage 2 optioneering process.

We ask please that the Minutes of 7 January meeting be revised as suggested and circulated. We look forward to further engagement with HAL on the matters covered by this letter.

Yours faithfully,

 Heathrow Community Noise Forum Coordinator

Heathrow's proposed Design Principle 2 (DP2)

The suggested wording for DP2 in Heathrow's response (dated 14 January 2022) appears to diminish the significance of ANG17 to it being an example, rather than a fundamental principle (which has been applied in the case of safety – DP1). It does not reflect the legal necessity relating to Airspace Modernisation and we would suggest it is amended as proposed in this note. Airspace Navigation Guidance has statutory effect and must be followed. Heathrow must provide the data and research material for the CAA to make a statement verifying that all environmental factors have been considered in line with relevant government policy reflected in ANG17.

Extracts from Air Navigation Guidance 2017

Preamble - Section 70(2) of the Transport Act 2000 requires the Civil Aviation Authority (CAA) to take account of any guidance on environmental objectives given to it by the Secretary of State (SofS) when carrying out its air navigation functions. These functions are set out in the SofS's Air Navigation Directions, made under sections 66(1) and 68 of the Transport Act 2000.

'1.1 This document contains the SofS's guidance to the CAA on its environmental objectives when carrying out its air navigation functions set out in the Air Navigation Directions 2017² issued under sections 66(1) and 68 of the Transport Act 2000 pursuant to section 70(2)(d) of that Act. This guidance should also be noted and taken into consideration by the aviation industry.

1.2 The environmental objectives with respect to air navigation are chosen to facilitate the government's overall environmental policies. These environmental objectives are designed to minimise the environmental impact of aviation within the context of supporting a strong and sustainable aviation sector. These objectives are, in support of sustainable development, to:

- a. Limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise³;
- b. Ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions⁴; and
- c. Minimise local air quality emissions and in particular ensure that the UK complies with its international obligations on air quality.

1.3 In order to deliver this policy, decisions which affect how aircraft noise is best distributed should be informed by local circumstances and consideration of different options. Options, and 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.

1.4 The guidance in this document is intended to guide the CAA and industry on how the decisions they make can best give effect to the government's Key Environmental Objectives.

3.5 For the purpose of assessing airspace changes, the government wishes the CAA to interpret this objective to mean that the total adverse effects on people as a result of aviation noise should be limited and, where possible, reduced, rather than the absolute number of people in any particular noise contour. Adverse effects are considered to be those related to health and quality of life.'

Continued/

Design Principle 2 – suggested wording

‘Our airspace design must remain in accordance with the laws of the land and any statutory guidance issued by the Government under a provision in an act of Parliament, including Airspace Navigation Guidance 2017. This includes (a) limiting and, where possible, reducing the number of people significantly affected by adverse impacts from aircraft noise (b) ensuring that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions and (c) minimising local air quality emissions and in particular ensuring that the UK complies with its international obligations on air quality. Heathrow will provide the data and research material to the CAA to enable it to verify that all environmental factors have been considered in line with relevant government policy reflected in the Air Navigation Guidance 2017.’

End

From: [REDACTED]
Subject: RE: Further response to the second round of workshops - Heathrow Airspace Modernisation Design Principles
Date: 19 January 2022 at 01:44
To: [REDACTED]
Cc: [REDACTED]

Classification: Internal

Caution: external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments.

Dear [REDACTED]

Thank you for your helpful reply of 17/12/21 to my email of 7/12/21 with specific queries following the second round of workshops on the Heathrow Airspace Modernisation Design Principles.

The HSPG's Environment and Airspace Group involves all the relevant specialists from the member authorities and met on 11/1/21. We discussed your email response and other matters, including the CAA's just published consultation on AMS. I am responding to you following that meeting on main three points:

Firstly, HSPG and members have participated and responded on the Heathrow AMP making a range of points. Your detailed response of 17/12/21 to some specific queries is helpful but we will not see HAL's formal responses to *all* our comments until you submit your report to CAA later in Q1/22. While the detailed responses and improvements to clarity are welcome, it is vital that HAL do now acknowledge and engage with the more fundamental issues raised previously by HSPG, in particular:

- A concern that the draft Principles are free floating. They need a clear context about how they will be used, prioritised and how all important judgements of balancing interests and concerns will be made. This must be made plainly understandable to the public and is fundamental to achieving appropriate balance of interests, such as in carbon reduction versus noise or other pollutant emissions. We previously suggested how such a context could be developed which would be readily understandable and establishes that priorities are in practice different at different points in a flight. Simply recognising that fact would be immensely helpful and avoids the trap that trying a one size fits all approach just ends being a black box approach which is almost impossible to explain.
- The draft Principles and documentation currently focus too much on *mitigation* of impacts, rather than *reduction* and *avoidance* of aircraft noise impact on local communities. The key requirements of Aviation Policy Framework and NPSfE cascade into subsequent policy and regulation, requiring *reduction in the numbers of people significantly impacted by noise*, and then, *mitigations and compensations* to reduce impacts and improve health and quality of life. There is a further clear requirement that *the benefits of new technology and innovations should be shared between industry and local communities*.
- The airspace Principles and processes must be truly 'future proof'. That is to say, designed to meet anticipated new needs and challenges rather than looking to make minimal changes to the existing and applicable to future

legislation such as the Environment Bill with tighter exposure limits of ultrafine particulates. This is a unique / rare opportunity to start with first principles and design afresh for the future decades.

Second, on a point of specific detail, your last email helps clarify a distinction of two different threshold limits to Heathrow's 'ownership' or interest in aircraft noise and aircraft carbon/pollution emissions. This is understood to be that:

- The Airport sees itself as responsible for pollution emissions and carbon accounting on for operations up to 3000ft (LTO mode including all ground running and movements), above which in the Cruise mode, it is the responsibility of others.
- Noise abatement is the priority of operations up to 4000ft (and to lesser degree 7000ft) over and carbon reduction.

It would seem to make good sense to align these thresholds at 4000ft to ensure maximum accountability and influence for the Airport in achieving policy balance.

Third, we note that the CAA consultation on the overarching Airspace Modernisation Strategy has just commenced, running to 4 April. Can you advise how and when HAL intend to respond and how you plan to engage with industry and local stakeholders in formulating your response?

As noted above, the E&AG of the HSPG contains relevant specialists and plans to next meet on 9/3/22 to consider our response to the CAA. There may be scope for some collaboration in our responses?

Happy to discuss any of the above.

Kind Regards

[REDACTED]

[REDACTED]

Lead Advisor
Heathrow Strategic Planning Group

[REDACTED]

PLEASE NOTE NEW PHONE NUMBER