

## Heathrow Community Noise Forum

Meeting notes (28 April 2021, 13:00 – 15:30, Microsoft Teams)

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### Confirmed attendees

<b>Name</b>	<b>Borough / Organisation</b>
Cllr Chris Turrell	Bracknell Forest Council
Steve Braund	Buckinghamshire Council
Cllr Dr Wendy Matthews	Buckinghamshire Council
Cllr Linda Burke	London Borough of Ealing
Surinderpal Suri	London Borough of Ealing
Paul Baker	London Borough of Hammersmith & Fulham
Ajit Bansal	London Borough of Hounslow
John Coates	London Borough of Richmond upon Thames
Cllr David Hilton	Royal Borough of Windsor & Maidenhead
Cllr Chris Howorth	Runnymede Borough Council
Sue Janota	Surrey County Council
Carole Marr	Aircraft Noise Three Villages (AN3V)
Margaret Majumdar	Ealing Aircraft Noise Action Group (EANAG)
Paul Conway	Englefield Green Action Group (EGAG)
Robert Buick	Englefield Green Action Group (EGAG)
Nigel Davies	Englefield Green Action Group (EGAG)
Tim Walker	Forest Hill Society
Christine Taylor	HASRA
Armelle Thomas	HASRA
Paul Beckford	HACAN
Deborah Petty	Molesey Residents Association
Bridget Bell	Plane Hell Action
Graham Young	Richings Park Residents Association
Peter Willan	Richmond Heathrow Campaign
Stephen Clark	Teddington Action Group (TAG)
Dave Gilbert	Teddington Action Group (TAG)
Tina Richardson	The Windlesham Society
Darren Rhodes	CAA
Ian Greene	DfT
Gary Marshall	DfT
Rebecca Christie	DfT
Robin Clarke	NATS
Pete Glass	NATS
Sam Hartley	ICCAN
Howard Simmons	ICCAN
Kjeld Vinkx	To70
Mike Fairbanks	Taylor Airey
Becky Coffin	Heathrow
Rick Norman	Heathrow
Jennifer Sykes	Heathrow
Michael Glen	Heathrow
David Knights	Heathrow
Laura Jones	Heathrow
Richard West	Heathrow

## Apologies

Name	Borough / Organisation
Bob McLellan	Englefield Green Action Group (EGAG)
Spencer Norton	British Airways
Stuart Lindsey	CAA

## 1 Welcome and apologies for absence

- 1.1 Becky Coffin (BC), Director of Communities and Sustainability at Heathrow, welcomed members to the virtual forum and noted apologies for absence.
- 1.2 BC addressed the previous meeting notes from 27 January. She noted that Dave Gilbert (DG) has requested some amendments so the revised notes would be circulated after the meeting. She ran through the previous actions as detailed below.
- 1.3 **Look into Hong Kong departure time restrictions (1.4).** Rick Norman (RN) advised that Hong Kong uses a Quota Count system similar to Heathrow, noting that the airport was conscious of international scheduling considerations and its own noise challenges. More details are available [here](#). Bridget Bell (BB) asked if communities around Hong Kong were affected by aircraft noise. RN responded that the airport still had noise issues to manage, although these were much less compared to its previous location.
- 1.4 **Requests to cover airspace modernisation and PBN (2.4) and for Taylor Airey to present on PBN (3.6).** BC advised that these items are on the agenda.
- 1.5 **Find out which airlines have historic rights to early morning time slots (3.10).** BC noted that the following airlines have the current allowance: British Airways, Cathay Pacific, Malaysian, Oman Airways, Qantas Airways, Saudi Arabian Airlines, Singapore Airlines, United Airlines and Virgin Atlantic.
- 1.6 **Investigate Boeing 787 flights not staying within the westerly Midhurst route (3.11).** BC advised that this had been investigated and a response had been sent.
- 1.7 **Arrange a follow-up meeting to discuss departure noise study (5.5).** BC noted that the community groups had subsequently requested for this to be covered at this meeting instead of a separate dedicated session.
- 1.8 Peter Willan (PW) asked if there was any update on Heathrow's expansion plans following February's Board meeting. BC explained that Heathrow's focus was on recovering the operation from the impacts of the COVID-19 pandemic, and that multiple discussions with multiple stakeholders would need to take place to work out Heathrow's next steps regarding expansion.
- 1.9 BC gave a brief business update. She explained that Heathrow's passenger numbers had fallen by 82.6% year-on-year in March. Cargo volumes were down 25.7% on an annual basis, although cargo movements have increased by 21.4% compared with March 2020. Daily flight movements during the month to date were between 292 and 404, well below the usual number of 1,300. With regard to the reopening of travel, she advised that the Government had announced plans to adopt a traffic light, risk-based framework to facilitate the return to international travel, as advocated by Heathrow in its submission to the Global Travel Taskforce.

## 2 Community Slot: Higher Climb Rates

- 2.1 Kjeld Vinkx (KV) from the consultancy To70 presented the results of a departure noise study that he carried out for the HCNF community groups in his former role as independent technical advisor to the forum. (The presentation is provided with the meeting notes.)
- 2.2 He advised that the objective of the study was to reduce departure noise as much as possible for the largest population, while minimising negative effects including increased noise, NO<sub>x</sub> and fuel burn. He concluded that there was significant potential to reduce departure noise for A320 aircraft, based on the noise metrics L<sub>Amax</sub> and SELs for the 60+ dB area. This would involve changing the Noise Abatement Departure Profile (NADP) from NADP2 to NADP1 and preferably increasing the acceleration height. He advised that further reductions in noise were possible by increasing the take-off thrust. He explained that the A320 had been used for the study because it was the most common aircraft type at Heathrow but acknowledged that the results may be different for other aircraft types and that this was a limitation of the study.
- 2.3 DG concluded that it was a great opportunity to reduce noise levels around Heathrow and suggested all pilots should be advised to use NADP1 to 4,500ft as was used for some aircraft types at some airports with dense populations nearby.
- 2.4 BC noted that Darren Rhodes (DR) had carried out similar studies in the past and asked for his thoughts. DR asked DG which airports specified NADP1 as standard and how he had concluded that NADP1 should be recommended for all aircraft types when the study only looked at the faster climbing A320 aircraft and no long-haul flights. He also noted that the study only looked at the Detling departure route and advised that other aircraft types and other departure routes should be studied before a conclusion could be reached. He acknowledged that ICAO guidance required two departure procedures NADP1 and NADP2 but noted that these had to be used for every airport globally. He observed that KV had acknowledged there would be some increase in noise exposure in the 60-65 dB contour but that the charts only showed data above 65 dB, so charts showing where increases occur should be provided for transparency. He noted that the 5dB reduction referred to on slide 13 was for properties directly under the aircraft track and that others would get an increase in noise so that should be made clear. He also observed that while the proposals may reduce L<sub>Amax</sub> they would also make aircraft slower and asked if any assessment had been carried out to see how that would affect the noise event duration, noting that a longer noise event above 60 dB may have a different character and could be perceived as having no benefit or a disbenefit.
- 2.5 BC noted that Spencer Norton (SN) from British Airways was unable to attend and asked Rick Norman (RN) to cover the points he had raised at the last meeting. RN advised that SN had noted the study only covered a single departure route and would like to see how the proposal would affect routes with different population distributions. He advised there was a trade-off between NADP1 and NADP2 which meant there would be losers as well as winners. He noted that changes to Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) should also be considered. He expressed concern about the proposal to mandate full thrust. He also noted that there were implications for the departure speed affecting the flow rate, so delivering the same capacity would take longer and could result in running later into the evening or using different routes to take the capacity.

- 2.6 DG responded that Paris Airport required aircraft to reach 3,000ft as soon as possible, noting it was the same at Brussels and Tokyo. He added that Schiphol Airport had 20km of flight paths with no high-density populations so NADP2 can be used there. He noted that KV had also looked briefly at Boeing 787 and 777 aircraft and found that LAMax contours reduced for those types as well. He explained that there was a disbenefit in LAMax beyond 20km where noise levels were lower, but the people most annoyed were closer in. He explained that those most affected were directly below the flight path so those were the people who would benefit. KV acknowledged that there were many other noise metrics and aircraft types that could be studied but that it would be a very time-consuming job.
- 2.7 DG added that the proposed change would result in a small increase in fuel cost of 14 euros per flight and would also reduce pollution. BC noted that any increases in carbon emissions resulting from increased fuel burn should also be acknowledged.
- 2.8 RN asked if DG was proposing that the objective of noise management should be to prioritise those closer to the airport, reducing the number exposed to greater than 65 dB rather than 65 dB and below. DG proposed that further discussion was needed on this.
- 2.9 David Hilton (DH) and Linda Burke (LB) suggested that the proposal should be added to Heathrow's Noise Action Plan for further study. Surinderpal Suri (SS) suggested that NADP1 should be tried while there was capacity at the airport.
- 2.10 Chris Howorth (CH) noted that this was not the first time there had been a discussion based on modelling to reduce noise for communities and observed that the proposals might have a negative impact on other communities. He suggested that the experts should meet to find areas of common ground that could be progressed for further work. Wendy Matthews (WM) agreed and Graham Young (GY) added that the CAA should take up this work as a matter of urgency.
- 2.11 RN advised that Heathrow would be reviewing its Noise Action Plan over the latter part of this year. He agreed with CH that identifying the clear objectives was key to determining the right interventions to pursue. He recalled that the history behind this forum came from action taken in support of a community led request to trial departure procedures to offer respite for those impacted by departure noise. Analysis was focused on impacts to those closest to the airport but there had also been learnings from the reaction of communities much further out. DG asked what was meant by much further out, to which RN replied there were a range of distances and changes in noise exposure levels including beyond 20km.
- 2.12 BC observed that there was clearly no consensus on the outcome of the study and that a number of questions needed to be investigated before moving forward. She proposed holding a dedicated session as suggested at the previous meeting. **ACTION RN**
- 2.13 DG asked if KV would be funded to attend. BC thought that the discussion should be with forum members in the first instance, but she would get back to him. **ACTION BC**
- 2.14 BC noted that a number of questions from DR and SN had not been fully answered. DG asked for those questions to be listed. BC agreed that they would be collated so that the dedicated session would be as productive as possible. **ACTION RW**

### 3 Why Airspace Modernisation is Needed

- 3.1 Rebecca Christie (RC), DfT Head of Airspace Modernisation, gave an overview of the Government's airspace modernisation strategy. She explained that airspace modernisation will be able to deliver quicker, quieter and cleaner journeys, providing benefits and opportunities to reduce noise and carbon emissions, benefitting all users and those impacted by airspace.
- 3.2 RC explained that, in light of the Covid-19 pandemic, DfT had commissioned the Airspace Change Organising Group (ACOG) early on in the pandemic to assess if airspace modernisation was still a programme that needed to be taken forward. The report showed that it clearly needed to be done, as even with a slight build-up in flights hotspots would start to appear. If the programme was not continued, then all of the work carried out so far would be lost and would have to be started from square one again.
- 3.3 RC advised that the Government had agreed to fund up to £5.5m for the work up to Stage 2 of the Airspace Change Process (ACP) known as CAP1616, explaining that the programme supported a number of Government objectives and would not be able to progress without funding. She expected airports to be in a position to have Stage 2 completed by the end of the 2022 financial year. This will involve engagement with communities and all stakeholders. She explained that while the bill was debated there was wide support to take it forward, but noise was noted as a key issue. She acknowledged that it would be a complex programme and that many trade-offs and discussions would have to take place.
- 3.4 Looking forward, RC explained that CAA will be reviewing the airspace modernisation strategy, ACOG will be producing a masterplan later this year, and DfT will be carrying out a consultation on decarbonisation as well as preparing a restart and recovery strategy.
- 3.5 Stephen Clark (SC) raised questions to DfT on how they would learn from Performance Based Navigation (PBN) implementation in the US and sought clarity on the roles of ICCAN, DfT, CAA, ACOG and airports in the analysis process. He expressed concern over the impact of PBN on areas with high density populations and advised that he would post his questions to RC. RC thanked him in advance for posting his questions, advising that she was aware of the trade-offs and that consultation was needed. SC added that the assertion that PBN would provide noise benefits needed to be proven and that mental health impacts also need to be assessed.
- 3.6 Peter Willan (PW) observed that the airspace modernisation programme had been around for fifteen years. He recalled that NATS had carried out a comprehensive study showing it needed to be done, but that their demand forecast was now out-of-date because of climate change. He appreciated there were benefits but wanted to see an environmental assessment and a cost-benefit analysis. RC responded that there would be a duty for the environmental impacts to be looked at.

- 3.7 BB asked what airspace modernisation involved. RC explained that it was a critical infrastructure programme, described by the Minister as 'motorways in the sky'. There are 15 initiatives, two of which are the development of airspace designs for Future Airspace Strategy Implementation (South / North), also known as FASI-S and FASI-N. In its totality, the aim is to design a more efficient highway in the sky, including departure routes, flight paths and how those are interconnected across the whole of the UK. What works for one airport might not work in conjunction with another airport. ACOG will look at how the airspace designs all fit together to provide a more effective network that helps with issues such as resilience, delays, cost and noise. ACOG will co-ordinate the de-confliction of routes, however it will be the airports who will sponsor and consult the designs of the routes below 7,000ft and closest to the airport. Deborah Petty (DP) asked if the 15 initiatives could be supplied as an addendum to the meeting notes. These are provided with the meeting notes and further information is available [here](#).

## **4 An introduction to Performance Based Navigation (PBN)**

- 4.1 Mike Fairbanks (MF) provided an overview of PBN. He explained that PBN involved a move from the old system-based navigational approach to a performance-based approach similar to a car's satellite navigation system using the Global Positioning System (GPS). He also noted that the move to PBN was mandatory in UK law. (The presentation is provided with the meeting notes.)
- 4.2 CH commented that while the benefits of PBN were clear, it was also clear that concentrated flight paths were detrimental to many people. He asked if the introduction of PBN would include serious consideration of distribution and the benefits and dis-benefits to residents. He noted that members wanted to understand how respite and night flight restrictions would be factored into airspace modernisation and how the DfT and CAA would address the trade-offs between winners and losers from the proposed changes. RC recognised that while PBN had the potential to deliver noise reduction, doing anything differently would result in other people being affected. She noted that Government policy needed to be considered, not only for cost-benefit analysis but also for decarbonisation, noise, safety and capacity.
- 4.3 Robert Buick (RB) asked how advanced the roll-out of PBN was in Europe and where there had been successful or unsuccessful examples. MF responded that different countries were at different stages. He highlighted Vienna Airport which was investigating the use of PBN to recreate the natural dispersal of conventional navigation, although he understood there were some technical challenges and was unsure how advanced the study was. DH added that using PBN for planned dispersion was where the forum started and looked forward to seeing how this could work at Heathrow. RN noted that Heathrow's 2014 departure trials had been designed in conjunction with HACAN to look at how to provide dispersion in a managed way through the use of multiple PBN departure routes.
- 4.4 Tim Walker (TW) cited how Area Navigation (RNAV) rather than PBN was introduced directly over SE London by London City Airport in 2016 to replace previously dispersed flights despite fierce opposition, resulting in a single arrivals flight path in near level flight at around 2,000 feet for some 20km. With no Continuous Descent Approach, the effect has been to create a 'noise sewer' for a concentrated number of residents. He expressed concern that similar changes may be introduced over the rest of London.

- 4.5 SC commented that there were no examples where PBN has been used over densely populated areas without serious detriment to communities. Paul Beckford (PB) asked if there were any airports comparable to Heathrow where some benefit had been delivered. MF responded that all airports were different. He acknowledged that using PBN in very densely populated areas without innovative solutions to distribute noise and emissions posed a significant challenge, and it would be necessary to think outside of the box to avoid introducing concentrated repetitive routes.
- 4.6 DP asked a number of questions via the meeting chat which were answered after the meeting as follows:
- 4.7 *DP: I wanted to ask about the safety issues related to the safe use of GPS at low level in fog. All that I have read says that pilots switch to traditional beacons in poor visibility or weather conditions. MF: GPS-based landing aids are not authorised for low visibility approach and landing. For these operations, the aircraft must use the instrument landing system (ILS) and must have the appropriate onboard equipment to ensure that performance requirements are met*
- 4.8 *DP: What about the resilience of GPS with satellite dependency and space junk? MF: The resilience of satellite navigation systems is a concern and is acknowledged (see for example the UK Government's Blackett Report [Satellite-derived Time and Position](#)). There are currently three GPS-like systems providing navigation signals (GPS itself, Galileo (the EU GPS equivalent) and Beidou (the Chinese GPS equivalent)). There is also the Russian GLONASS system, but this is slightly different. There is work currently being done to address the resilience/vulnerability of satellite navigation (e.g. UK Government is developing a resilient navigation strategy) but in the meantime aviation does not rely solely on GPS - the traditional systems are retained as a backup*
- 4.9 *DP: What about concentration of emissions in narrow PBN corridors? MF: Concentration is unlikely to be a significant factor for greenhouse gases (carbon) where the effects are due to trapping heat in the atmosphere at a global level. The impacts on local air quality (e.g. from particulates (soot), NOx, etc) will likely depend on the height of emission and the prevailing wind conditions that disperse the emissions.*

## 5 Heathrow Airspace Change Programme

- 5.1 Jennifer Sykes (JS) gave an update on Heathrow's airspace change programme which was paused and put under review following the pause of Heathrow's expansion project and the impact of the Covid-19 pandemic. She explained that planning was underway to consider an airspace modernisation airspace change, with requirements from the existing paused airspace changes such as redesigning the Compton route and introducing easterly alternation to be considered in the review. (The presentation is provided with the meeting notes.)
- 5.2 JS advised that Heathrow was looking to mobilise in the next few weeks, and that the airspace change would be following the CAP1616 process which has specific touchpoints, ensuring members will be informed throughout the process. She expected that implementing the programme for an airport the size of Heathrow would take between 6 and 8 years, so it would have to be a resilient plan that worked for the long term.
- 5.3 DH wanted to know why Heathrow now supported PBN as he understood the airport had previously opposed it following the 2014 westerly departure trials. RN clarified that Heathrow had been supportive of PBN as long as he had been involved in it, and that Heathrow's comments at the time had been around the impact of the trials and not the principles of airspace modernisation.

- 5.4 PW was concerned that the masterplan would look at conflicting routes at each airport and decide the final flight paths and gateways into upper airspace before the community engagement process in CAP1616 took place. JS reassured him that the masterplan would only look at how to solve conflicts at a generic level, all flight paths would be consulted by airports, and there would be opportunity for comment at all stages of the process as with any airspace change. RC added that ACOG would not be designing any routes or plans for individual airports. They were commissioned by CAA and DfT to make sure there was an integrated plan, identify critical sponsors to be part of that plan and look at policies and conflicts. They will also ensure that consultation takes place through the CAP1616 process.
- 5.5 PW asked if there would be a separate ACP for each flight path change. RC advised that each ACP would go through the CAP1616 process. BC suggested an agenda item for the next meeting to look at the detail of the process with representatives from DfT and ACOG. **ACTION RW**
- 5.6 SC highlighted the proposed introduction of easterly alternation and suggested there needed to be a local noise objective of no extra noise burden on local communities, and that would require an evidence base to understand the impacts. JS responded that Heathrow would work with DfT and follow CAP1616 guidance.
- 5.7 PB asked if the airspace design work that was carried out based on three runways needed to start again and whether that would mean more uncertainty for the next five years. JS explained that the prior information in Heathrow's paused ACPs would be checked for relevance and re-used or picked up where possible, so it would not be lost. She noted that Heathrow was aiming for a plan that would lead to the least number of ACPs so there would be the least amount of change for local communities, acknowledging that this would take time to do properly with meaningful engagement.
- 5.8 PB asked how much of the DfT funding Heathrow was hoping to receive. JS advised that Heathrow was one of around twenty eligible airports and was still working with CAA to access the funding and was therefore not in a position to discuss this further. RC added that one of the cornerstones of funding was a workplan so that every step of Stage 2 of the airspace change process was plotted out. She explained that every airport needed to follow same the activities, but it would cost each airport a different amount depending on their size and location.

## 6 Heathrow Forums and Meetings Review

- 6.1 BC gave an update on Heathrow's ongoing review of its community forums and meetings. She advised that January's consultation had resulted in 38 responses from a range of stakeholders and community groups. She highlighted the key findings and explained that the review will also consider how the forums and meetings will fit with the Heathrow Community Engagement Board (HCEB) which is transitioning to focus on its role as an Airport Consultative Committee. Proposals for a new structure are expected to be shared at the next meeting. (The presentation is provided with the meeting notes.)



## **7 AOB**

- 7.1 TW asked if Heathrow could comment on reports that Windsor Castle was to be granted a no-fly zone following their complaints about aircraft noise. Michael Glen (MG) explained that the proposal was for a new area of permanent restricted airspace centred over Windsor Castle, consisting of a 1.5nm radius over the castle and up to 2,500ft above ground. The sponsor of the consultation was Thames Valley Police and the purpose of the proposal was to provide security to the royal household, so it would help with protection from drones for example. He advised that similar restrictions exist over other royal households such as Buckingham Palace and the proposal had nothing to do with noise reduction for the Royal Family. Heathrow's arrivals and departures would be exempt from any restrictions so would continue to follow existing flight paths. He noted that the proposal had not yet been approved and would be subject to consultation, with Heathrow working with relevant stakeholders as a consultee.
- 7.2 BC informed members that Laura Jones (LJ) was leaving the business so this would be her last forum. She paid tribute to LJ's work during her time at Heathrow and members joined BC in wishing her all the best for the future.

### **Date of next meeting**

Wednesday 28 July 2021 (1:00pm – 3:00pm)