

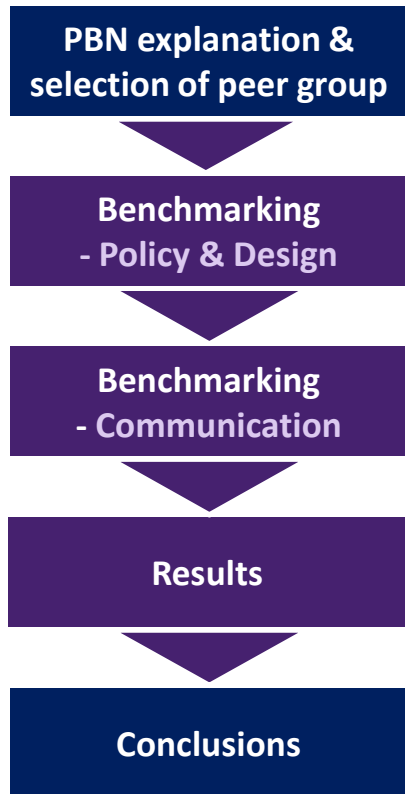


Lessons Learned: Response to Taylor Airey's PBN Implementation Benchmarking Report

July 2022

Heathrow

Taylor Airey was tasked with undertaking a review of global PBN implementation to assist us in identifying best practice



- The aim of the study was to:
 - Develop a common understanding of PBN and its implications for airspace design
 - Understand PBN implementation from policy development to impact assessment using comparator airports that:
 - Are implementing PBN and are comparable in size to Heathrow; and
 - Have attracted high level of protests or have public data available.
 - Consider approaches to airspace change stakeholder engagement
 - Benchmark results to demonstrate good and bad practice
 - Identify key findings and recommendations for future PBN implementation
- The study was undertaken from July 2019 to March 2020, informed through:
 - Stakeholder engagement with members of the Heathrow Community Noise Forum (HCNF),
 - The Heathrow Noise Action Plan 2019 – 2023, and
 - A desk-based benchmarking exercise using case studies from airports across the world that have implemented PBN.

We are generally supportive of the recommendations identified by Taylor Airey

Taylor Airey Recommendation	Heathrow Response
<p>Recommends “more meaningful” metrics to assess noise impact</p>	<p>We are aware that some community stakeholders are uncomfortable with the metrics required by WebTAG/CAP1616. We are therefore investigating the use of additional metrics where appropriate, to provide greater transparency and confidence around our design assessments.</p>
<p>Recommends that flight paths are identified and consulted on as early as possible</p>	<p>CAP1616 process does not allow for early identification of flight paths, but does allow for detailed and lengthy consultation once flight path options are available. We are planning to engage stakeholders throughout the development of airspace design options.</p>
<p>Recommends that consultation and engagement are targeted at affected communities</p>	<p>We are planning awareness/advertising campaigns and seeking to target community representatives from all potentially affected areas, including areas not overflown (or engaged) today</p>

The report also sets out recommendations for CAA and UK Government

Taylor Airey Recommendation	Heathrow Response
<p>Recommends tighter Government Policy around:</p> <ul style="list-style-type: none"> a) Preference for concentration/dispersion of flight paths b) Measurement of health impacts 	<ul style="list-style-type: none"> a) Current situation allows airports to take account of individual circumstances (geography, need for the change, Design Principles): Government Policy should not be too prescriptive b) Would support further clarity/guidance on the measurement of health impacts due to aircraft noise. We recognise the need for further research in this area.
<p>Recommends greater clarity around governance of the airspace change process</p>	<p>We would support greater guidance on how airports should collaborate on evolving designs and public consultation.</p>
<p>Recommends challenge to aircraft FMS* limitations, to allow for multiple PBN routes to be programmed</p>	<p>We are also working with airlines to understand more about FMS limitations so that we can consider this in our future airspace design.</p>

* Flight Management System

The Taylor Airey report has assisted us in identifying the most applicable lessons for Heathrow

- The benchmarking exercise ranked “best” performers and “worst” performers and placed Heathrow in the middle of the group, based on evidence of Heathrow’s approach to airspace change to date
- **This report expands on our earlier response to the Taylor Airey analysis**
- The case studies most comparable to Heathrow are generally large airports located in major urban areas and located near to other large/medium airports where airspace is constrained
- **Lessons learned will inform Heathrow’s plans for engagement and consultation throughout the Airspace Modernisation ACP**

“London City Airport generated extensive criticism for a relatively low level of engagement around flight path changes”

Taylor Airey Report Findings

- London City Airport introduced PBN flight paths in 2014/15
- *Consultation was mainly conducted through the airport’s consultative committee without public meetings, advertised community events, or engagement with local authorities; similarly no written communications were targeted at the affected areas*
- *London City forecast a significant decrease in the numbers of people overflowed. However, they underestimated the strength of feeling against the concentration of traffic... the majority of noise complaints were generated by individuals directly under the route centrelines*
- **Resulted in a deterioration of trust between the airport and the local community, generating the formation of opposition groups opposed not only to the flight path changes but also to airport expansion**

Lessons learned for Heathrow:

- **Engage with Local Authorities throughout the ACP**
- **Use public meetings and consultation events to share information and collect views**
- **Widespread advertising of public consultation and consultation events**
- **Use the CAP1498 method to assess impact of increased overflight on those already overflowed**

“At Sydney Airport extensive consultation and investment in community relations has taken place over a number of years”

Taylor Airey Report Findings

- **Sydney Airport Community Forum** monitors the operational restrictions imposed on Sydney Airport, acting as a powerful focal point for the local community, government & regulator to shape environmental and noise operating restrictions
- Communication materials around the impact of noise are well presented using intuitive and engaging techniques including animations and videos
- The airport's noise website offers a tailored experience for local communities
- Formal communication channels are well developed, with the impact of overflight from the airport being reported in local land searches

Lessons learned for Heathrow:

- **Consider community diversity when developing consultation material, for example:**
 - Age
 - Education
 - Language
 - Cultural background
 - Mobility
- **Directly reach out to those most impacted by the change**

Phoenix Airport made “significant changes without properly notifying the public or allowing the public to provide input”

Taylor Airey Report Findings

- *Routes condensed and lowered flight corridors over homes, historic districts, natural preserves and parks*
- *Following a court ruling, the FAA agreed to reach out to residents while temporarily resuming the previous departure routes.*
- *FAA will develop satellite-based procedures for the original routes, seeking community feedback throughout the process*

Lessons learned for Heathrow:

- **Share forecast impacts of airspace change through public consultation prior to implementation of changes**
- **Ensure baseline data is accurate prior to assessing impacts**
- **Engage local authorities and political stakeholders throughout the airspace change process**

“Vienna airport is often cited as best practice in terms of open, fair and transparent stakeholder engagement”

Taylor Airey Report Findings

Extensive community engagement through local dialogue forums has provided a useful platform from which consultations on specific route options can be developed with the local community

PBN was implemented in line with existing operating restrictions including:

- *A preferential runway system*
- *A ban on weekend night flights*
- *A cap on aircraft movements along given arrival and departure routes over a set period of time*

Lessons learned for Heathrow:

- **Ongoing engagement through community forums can help to:**
 - **Build relationships**
 - **Test approach to developing route options**
 - **Test approach to public consultation**
- **Clear operating restrictions and procedures can help to give local communities confidence on the impacts of new flight paths**

“Auckland Airport provided clear communications, incremental implementation and a responsive design process”

Taylor Airey Report Findings

- *Active listening during a consultation / trial period, and the ability to alter the location of PBN routes in response to feedback*
- *Online resources explain current and future operations using clear and accessible published material and easy to navigate websites*
- *Clear guidelines... from government around the airspace change process and the implementation of PBN*
- *Regular updates keep stakeholders informed and engaged using a well defined reporting process and understandable status updates*

Lessons learned for Heathrow:

- **Develop a flexible design process that allows stakeholder feedback to be incorporated**
- **Ensure online resources are accessible and up-to-date**
- **Provide regular stakeholder updates**

Heathrow can also learn lessons from industry's best practice engagement guidance for PBN implementation

- Develop a stakeholder engagement plan tailored to the scope and scale of the project to engage stakeholders **early**, adopting a consistent approach from design phase through to post implementation
- Include both communities that are **already adversely impacted** by the operation **and** those that are **potentially impacted** by the change
- **Tailor information** provided to communities to ensure that it is targeted and location specific
- Be **open and transparent** about both benefits and adverse effects of proposed changes (e.g. noise contour maps, flight track depictions, emission levels)
- Provide communities with **a variety of educational materials**, e.g. social media, print, broadcast media, creative engagement technology
- **Build relationships** with stakeholders to address concerns of trust, fairness, health effects and quality of life
- Provide **clear traceability** between stakeholder feedback and its influence and impact on options
- **Manage different expectations in a transparent way** given it is unlikely any outcome will meet the demands of all parties

Recommendations on best practice have helped us validate Heathrow's approach to community engagement

For the Airspace Modernisation ACP, Heathrow is committed to the following:

Robust analytical approaches to forecasting impacts prior to consultation and proactively seeking to engage those likely to be overflowed	✓ Assessment of impacts at Stage 2 and Stage 3
Transparency and engagement with local authorities throughout the ACP around inevitable changes to the spread/dispersion of noise due to the introduction of PBN flight paths	✓ Engagement with Local Authorities scheduled from Stage 1 to Implementation
Offering stakeholders visibility of proposed changes and impacts, through user-friendly resources, providing ample opportunity for review and feedback	✓ Awareness campaign Focus groups Large stakeholder list Public Consultation (Stage 3)
Widespread advertising of public consultation events to attract a broad range of stakeholders from a wide range of backgrounds	✓ Stage 3 Consultation Plan
Post public consultation, outline all feedback received and how it has been considered in the final airspace design in a Consultation Feedback Report	✓ Stage 3 Consultation Plan

Heathrow