

AIRPORT EXPANSION AND AIR POLLUTION

Would a new runway breach legal limits for air quality?

Air pollution is a public health issue and legal limits are breached regularly across the UK. The public is no longer tolerant of infrastructure projects that worsen air pollution levels and policy makers are finally having to act. This briefing considers the importance of air pollution in the airport expansion debate and how the Airports Commission addressed the issue.

KEY ISSUES:

- The European Court of Justice has ruled that the UK must take action to ensure air pollution is reduced to legal limits within the shortest time possible
- The Airports Commission’s appraisal found that all short-listed expansion options would have an adverse impact on local air quality unless significant mitigation measures are put in place
- A new runway should not be built at any location already in breach of legal air quality limits or where expansion would lead to new breaches

in emissions from aircraft, airport vehicles, and passenger and freight transport.

AIR POLLUTION AROUND HEATHROW

The area around Heathrow Airport has been described as an air pollution hotspot (see image below) due to a combination of air traffic, background pollution levels in Greater London and the proximity of two major motorways – the M25 and M4.² Breaches of legal limits have been recorded close to the airport for at least the past 10 years.³

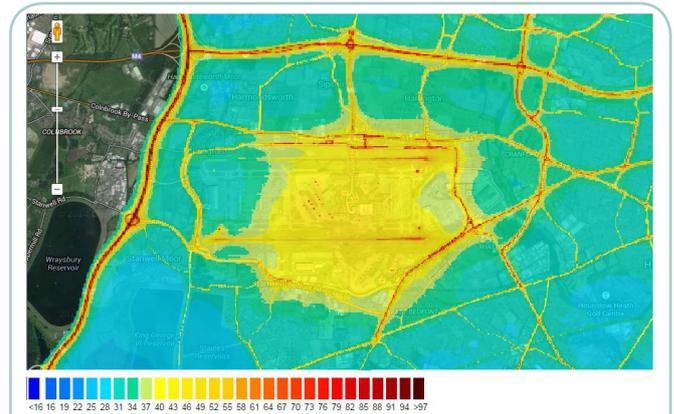
Former Heathrow CEO Colin Matthews said in 2013 that the M4 would have to be diesel-free in order for Heathrow to comply with legal limits if a third runway is built.⁴ Many local authorities therefore oppose expansion in their local plans.

THE AIR QUALITY CONTEXT

According to the World Health Organisation (WHO), air pollution is the world’s biggest environmental health risk.

A legal framework exists in the EU to tackle air pollution (the Air Quality Directive), but the UK has failed to achieve the required reduction in emissions. The environmental law group Client Earth won a case against the UK Government, with the European Court of Justice ruling that the UK’s legal system must act to ensure that the Government achieves legal limits “within the shortest time possible”.¹

In April 2015, the UK’s Supreme Court ordered the Government to draw up plans to meet nitrogen dioxide limits much sooner than 2030 (after which the UK expects to be compliant under current plans). This throws into question whether a new runway could be built at Gatwick or Heathrow, given potential increases



The Heathrow area in 2010 breaching the NO₂ annual legal limit (all areas yellow to red are breaching legal limits). Source: <http://www.londonair.org.uk/>

About the AEF:

We are a policy-focused NGO supported by individuals and community groups. We work at national, EU and international levels to secure effective regulation of the industry. We were one of only two environmental NGOs to give spoken evidence to the Airports Commission.

Airports Policy Brief: Would a new runway breach legal limits for air quality?

Part of a series of briefings from the Aviation Environment Federation on why the question about UK airports should be 'whether' and not just 'where' to build a new runway.

THE AIRPORTS COMMISSION'S ANALYSIS

The Airports Commission carried out a separate consultation on its local air quality assessment prior to publishing its final report in July this year. Its assessment concluded that expansion at Heathrow would have a **significantly adverse** impact on local air quality. Its modelling indicated that areas around Heathrow would be in breach of legal air quality limits following expansion although the Commission argued certain mitigation measures were not factored in.

CHALLENGES TO MEETING AIR QUALITY LIMITS

To mitigate the air pollution impacts related to carrying an additional 40 million passengers, Heathrow proposed promoting clean aircraft technology, increasing public transport usage and even a congestion charge. The Airports Commission highlighted three challenges to meeting air quality limits:

- 1. Aircraft fleet-turnover may be too slow.** Latest engine standards for nitrogen oxides do not apply to aircraft already in use and they can remain in service for 40 years. Evidence suggests that nitrogen dioxide emissions from aircraft around Heathrow have not changed significantly since 2000.⁷
- 2. There may be a slower switch to sustainable modes of transport.** The Airports Commission's assessment concluded that it was "unclear" whether Heathrow's plans that there would be no increase in the number of vehicles accessing the airport expansion was deliverable.
- 3. European rules on air quality could be tightened.** Not all EU air quality limit values relate to the health based WHO recommendations. Additionally, the Air Quality Directive includes a non-deterioration principle to preserve air quality in areas already compliant with legal limits.⁸

When the Labour government supported an additional runway at Heathrow from 2003-2010, its modelling indicated that nitrogen dioxide levels would reduce sufficiently for a new runway to be operational by 2020.⁹ However, air quality remained the main barrier over the next seven years to bringing forward a formal application.

THE COMMISSION'S FINAL REPORT RECOMMENDS HEATHROW EXPANSION

The Commission's final report recommended a third

runway at Heathrow, stating that air pollution would not be an insurmountable hurdle for expansion. However, the Commission takes the view that expansion would not delay compliance with legal limits provided other locations within London had even higher levels of pollution. This position was widely criticised by local councils and air quality campaigners⁵.

WHAT ABOUT GATWICK?

From its modelling, the Airports Commission concluded that **"expansion unless mitigated would exacerbate the risk"**⁶ at Gatwick of breaching legal air quality limits. However, the airport had proposed no concrete mitigation measures to ensure compliance.

The Gatwick Area Conservation Campaign argues that the number of jobs predicted by Gatwick Airport would require a town the size of Crawley to be built. The Airports Commission has not accounted for the related air quality impact in its analysis.

POLICY RECOMMENDATIONS

The Government should:

- Assess the Airports Commission's final recommendations in terms of their impact on human health, and the risks to air quality legal limits
- Prevent expansion in any location where legal air quality limits are already breached or would be following expansion
- Aim to improve air quality around all airports to obtain WHO guidelines levels in order to protect public health¹⁰

REFERENCES

1. Court ruling 19 November 2014: <http://goo.gl/DcgLMO>
2. London Assembly Environment Committee 2012 Plane speaking: air and noise pollution around a growing Heathrow airport <http://goo.gl/7ZchAb>
3. See for example Hillingdon Keats way station on <http://goo.gl/ONPxCD>
4. Flight Global 17 April 2014 <http://goo.gl/oqkhH2>
5. Client Earth quote in the Evening Standard <http://goo.gl/bdXCd8>
6. Airports Commission: Gatwick Airport Second Runway: Business Case and Sustainability Assessment <http://goo.gl/FP3Yxa>
7. Carslaw and Beevers (2012) Characterising and understanding emission sources *Environmental Modelling & Software*
8. Letter from European Commission to Clean Air for London campaign <http://goo.gl/XB0ixO>
9. Adding capacity at Heathrow airport- Consultation document (2007) <http://bit.ly/1GoTDdN>
10. WHO (2005) WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulphur dioxide

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