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28<sup>th</sup> May 2015

To: Airports Commission

**RE: Airports Commission Air Quality Assessment Consultation**

PlaneWrong is a non-political group set up by residents in September 2014 to campaign for a reversal in the recent changes to Gatwick Airport Flight Paths. We represent communities living in areas north of Gatwick Airport including Dorking, Reigate, Redhill and surrounding villages. Whilst the focus of our campaign has been the impact of recent changes to flight paths, we also have a remit from our members “to provide a view on any proposals relating to a second runway at Gatwick Airport.” The main concern of our membership is the noise and environmental impacts of airport expansion on local communities and rural areas, which by their very nature, tend to be under-represented.

This most recent consultation by the Airports Commission is focussed on the findings of an Air Quality Assessment for the three shortlisted options. Specifically the Commission is:

*“... inviting comments on this further evidence, which will be relevant to the Commission’s assessment of air quality impacts in Chapter 10 of the Sustainability Assessment for each scheme and on the monetised impacts of air quality in the economic case (Chapter 2 of the Business Case for each scheme).”*

*In its consultation Document the Commission asked eight questions relating to its appraisal. In this consultation, the Commission considers this new analysis is most relevant to the questions inviting responses on specific areas of the Commission’s appraisal, in this case air quality:*

- *Q5: Do you have any comments on how the Commission has carried out its appraisal of specific topics (as defined by the Commission’s 16 appraisal modules), including methodology and results?*
- *Q6: Do you have any comments on the Commission’s sustainability assessments, including methodology and results?*
- *Q7: Do you have any comments on the Commission’s business cases, including methodology and results?*

*However, respondents may discuss any elements of the Commission’s consultation which they consider are affected by this additional evidence. They may therefore refer to any of the eight consultation questions in submissions. – Extract from Guidance note on Air Quality Assessment Consultation<sup>1</sup>.*

PlaneWrong would like the following views to be considered.

**1. Approach to consultation on Air Quality**

The Consultation was announced on Friday 8th May for a submission on the 29<sup>th</sup> May. Clearly a very detailed air quality assessment has been carried out for each of the shortlisted options. This consultation period, however, has not been sufficient properly to appraise the findings of the report and cross-reference with other evidence submitted and European Legislation. As a community group, it has been especially challenging to seek out relevant expertise and develop a response given other work and life commitments.

Further we must remind you of the *Sedley* principles adopted in *R v. Brent London Borough Council*,

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<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/426264/air-quality-consultation-cover-note.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/426264/air-quality-consultation-cover-note.pdf)

*ex parte Gunning*, and in particular the fifth of those principles – that “adequate time must be given for consideration and response.” We do not think that a three week consultation is adequate for a matter of such complexity, and the consultation is thus flawed.

**Air quality is such a fundamental impact of any proposed airport expansion that we feel that significantly more time for responding to this consultation should have been given. Also, we believe that the short consultation period makes the process unlawful.**

## **2 Concentrated Flight Paths lead to concentrated pollution loads**

### Performance Based Navigation

You will know that it is CAA policy to introduce PBN throughout the country. You will also no doubt know that PBN has been in place for all departures from Gatwick since May 2014. The CAA states on its website that “benefits” from PBN include “Predictable and repeatable path trajectories...” and “Closer spaced routes”.

This organisation speaks for several thousand people who live under these predictable and repeatable path trajectories and closer spaced routes, and we are sure that you will understand that these people do not see these characteristics as benefits at all. Indeed the resulting concentration of noise and pollution leads to considerable environmental costs. We are very taken aback that, given that:

- it is known that PBN at Gatwick has caused considerable distress and environmental damage, and that
- it is (as mentioned above) current policy to introduce PBN throughout the country in the next few years, in the modelling summarised in the 8 May consultation document no consideration at all seems to have been given to the concentration of pollution caused by these new corridors. We see this as a clear failure in the methodology.

### Other causes of concentration

For completeness we also refer to the arbitrary changes to arrival flightpaths to the east of the airport now the subject of judicial review proceedings. Although they do not of themselves arise from the introduction of PBN, the effect is just the same, and again we see it as a failure of the methodology not to mention this cause of concentration.

**In short, the pollutant effect of flight path concentration has been ignored.**

## **3. Comments on the modelling approach and difference between economic and environmental appraisal.**

The figures used indicate the economic benefit of a new runway at full capacity while only assessing the environmental damage and investment needed in infrastructure for a runway operating at 50% capacity. The calculations of future pollution levels suffer from fundamental fatal flaws:

- They relate to 2030 when a second runway at Gatwick would only be at half its full capacity.
- They are based on estimates of future road traffic which are roughly half what can be predicted

It is unclear from the Consultation document, what forecasts for the number of passengers or aircraft movements were used to produce the pollution estimates. The forecasts previously used by the Commission show the new runway only being used at roughly half its full capacity by 2030. Even on their most optimistic schedule, Gatwick Airport Ltd (GAL) do not expect to have a new runway open until 2025. Indeed GAL do not expect to complete the building of their new terminal until 2040. We can therefore assume that pollution levels will significantly increase when the new runway is operating above 50% capacity.

Similarly, the forecasts of pollution caused by road traffic are seriously understated. They too refer to the year 2030 when the runway will be less than half its capacity. The Commission forecast a tenfold increase in the amount of freight handled by Gatwick. This would lead to a substantial increase in the number of commercial vehicles, and a serious increase in pollution levels, ignored in the current consultation paper.

The assessment also ignores the extra road traffic due to the increase in catalytic employment. One of the main claims by GAL, and by the Gatwick Diamond Initiative, is that a second runway will lead to many new firms being attracted to the area by the prospect of an airport as large as Heathrow. The staff of these new firms, and of existing firms which would grow in size, would need to travel to and from work, mostly by car. In addition, the new or expanded companies would create a large increase in road movements by HGVs and diesel vans.

GAL has put forward various suggestions for mitigation, but the independent consultants employed by the Commission conclude that they are both overstated and inaccurate. They also state suggest that it is unclear how the far reaching public transport measures proposed by GAL to mitigate pollution impacts will be delivered<sup>2</sup>.

#### **4. Specific comments relating to the air quality impact to the environment of Gatwick expansion**

Notwithstanding the fact that (as indicated above) the modelling approach understates the polluting effect of a second runway, the results of the environmental assessment still clearly demonstrate that there will be material and harmful impacts to the environment as a result of a second runway at Gatwick<sup>3</sup>. The average increases reported hide the underlying increases in air quality impacts. For example, an average increase in NOX of 28% includes between 114% and 175% increase in NOX from aircraft movements.

The report also indicates that these impacts have been underestimated by the promoter for this scheme, Gatwick Airport Limited<sup>4</sup>.

Gatwick Airport is surrounded by areas of outstanding natural beauty and SSSI sites. The report indicates a significant increase in nitrogen oxide levels at these protected sites, many of which are already at Critical Levels. Deposition of nitrogen compounds can lead to soil and water acidification to which lowland heaths are particularly sensitive (DEFRA<sup>5</sup>). Nitrogen oxide can also cause eutrophication of soils and water, which alters the species composition of plant communities and can eliminate sensitive species.

The air quality assessment demonstrates that expansion at Gatwick would lead to an increase in Nitrogen Dioxide at all but one of the sensitive ecosystems that surround Gatwick Airport. Many of these SSSI sites are already subject to pollution loads far in excess of the Critical Level. Of the 10 sites assessed, 3 are over 4 times the Critical Level and 3 are more than double.

The concluding statement that the '*Gatwick 2R Scheme would not cause any **new** exceedances of the Critical Level*'<sup>6</sup> (P.45) is alarming in this context.

**Promoting a scheme that will increase pollutant loads well beyond critical levels at protected sites is unacceptable.**

#### **5. Specific comments relating to the impact on people of Gatwick expansion**

The assessment also states 51,328 people within the 'Study Area' of a 2km radius around the new airport boundary would be affected by higher annual Nitrogen Dioxide concentrations.

According to the Journal 'Environmental Science & Technology', which is published by the highly respected American Chemical Society, their findings suggest that "the air quality impact areas of major airports may have been seriously underestimated." They go on to say that "Aircraft air pollution — the ultrafine sulphur dioxide, nitrogen oxide and other toxic particles that are created from the

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<sup>2</sup> P.51, Jacobs Air Quality Assessment Local Report

<sup>3</sup> Table 4.3, Jacobs Air Quality Assessment Local Report

<sup>4</sup> P.50, Jacobs Air Quality Assessment Local Report

<sup>5</sup> <http://uk.create.defra.gov.uk/PDFs/Leaflets/Lowland%20heath.pdf>

<sup>6</sup> P.45, Jacobs Air Quality Assessment Local Report

condensation of the jet's hot exhaust vapours — is a health concern. The particles can embed themselves deep inside the lungs and then enter the bloodstream. The inflammation they cause is suspected of worsening many lung conditions, such as asthma and chronic obstructive pulmonary disease (COPD), and of contributing to the development of heart disease”<sup>7</sup>.

## **6. Inconsistency with Airport Commission Objectives and EU Directive**

The Airports Commission's Appraisal Framework states its objective to improve air quality consistent with EU standards and local planning policy requirements. The EU Air Quality Directive Preamble states that: Air quality status should be maintained where it is already good, or improved.

The consultation does not mention that on 30 April and 1 May the Supreme Court delivered judgement to the effect that the Government is legally bound to take action to implement Article 13 of the EU Air Quality Directive – the Article which places limits on the maximum annual level of pollution.

**In view of the Supreme Court decision that the Directive must be implemented by the UK Government, it would appear that a decision to go ahead with plans for a second runway at Gatwick which did not 'preserve the best ambient air quality' might well also be found to be illegal.**

There was speculation in the press that this judgement was likely to rule out both runway options at Heathrow. If, however, our assessment of the increased pollution due to aircraft and road traffic is correct, it would also rule out a second Gatwick runway.

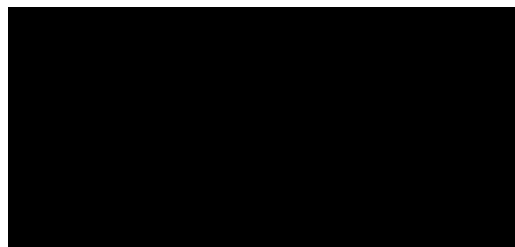
In the short time available for responding to this consultation we have not been able to take professional legal advice but, if the Commission were to recommend Gatwick, there would seem to be a case for considering judicial review.

## **7. Sustainable Development and Limits to Growth**

It is unclear how the Commission will view the significant social and environmental impacts of airport expansion in a way that is balanced with economic arguments. Evaluation of the economic costs of social and environmental impacts notoriously underestimates the true value of tranquil areas and rare ecosystems.

Further, the southeast is one of the most prosperous area of the UK, with high levels of employment. Sustainable development policies should prioritise any investment into national infrastructure in areas in need of economic investment, in particular, cities in the North of the UK. Any investment should also seek to maximise the use of improved high-speed links, given that so many onward connections are to locations within the UK<sup>8</sup>.

Simply put, Gatwick is in the wrong location for maximising the economic benefits to the UK as a whole as part of an integrated transport system, and the proposal for a second runway would have devastating environmental impacts to areas of outstanding natural beauty and sensitive ecosystems.



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<sup>7</sup> <https://www.minnpost.com/second-opinion/2014/06/airport-pollution-may-have-been-seriously-underestimated-study-suggests>

<sup>8</sup> LSDC Air Transport Impacts - London Sustainable Development Commission