

2 February 2015

Airports Commission Consultation  
Freepost RTKX-USUC-CXA  
PO Box 1492  
Woking  
GU22 2QR

Dear Sir/Madam,

**IET response to the consultation by the Airports Commission, increasing the  
UK's long-term aviation capacity**

The IET is Europe's largest professional engineering and technology organisation. The members represent a wide range of expertise, from technical experts to business leaders, encompassing a wealth of professional experience and knowledge.

This response has been compiled on behalf of the IET Board of Trustees by the IET's Transport Policy Panel.

If the IET can be of any further assistance please do not hesitate to contact me.

Yours faithfully,

[Redacted Signature]

[Redacted Name]

*The Institution of Engineering and Technology*

[Redacted Address]

**Increasing the UK's long-term aviation capacity**

**Questions 1-2 invite your views and conclusions in respect of the three short-listed options.**

*Q1 What conclusions, if any, do you draw in respect of the three short-listed options? In answering this question please take into account the Commission's consultation documents and any other information you consider relevant. The options are described in Section 3 of the Consultation Document.*

*Q2 Do you have any suggestions for how the short-listed options could be improved, i.e. their benefits enhanced or negative impacts mitigated? The options and their impacts are summarised in Section 3 of the Consultation Document.*

- 1) There is a need for an integrated transport strategy, across modes, nationally and at reasonable sub-national level. This strategy should be set in economic, social and environmental contexts to which the expansion of airports is an important factor.
- 2) Any airport expansion must be considered as part of the transport system as a whole. The lack of an integrated transport strategy for the UK creates barriers to a comprehensive discussion. A systems-view of mobility should be taken, including public road vehicles, rail and freight.
- 3) The options noted in the consultation and their impacts do not appear to be a truly top-down analysis looking at the overall national infrastructure strategy. There needs to be consideration of the wider business drivers (e.g. the need to develop UK research and innovation, to grow high technology manufacturing industry, to support the financial and insurance sectors in the City, etc.) before a clear decision can be made.
- 4) Technology will play a major part in improving efficiency and reducing emissions in air travel. There needs to be further discussion on air traffic management and aircraft systems developments that through technological developments enable the increase of existing airfield movement capacity, albeit with a need to improve passenger and freight handling systems.
- 5) The consultation documents make no mention of Unmanned Aircraft (UAS/RPAS). Once the regulatory hurdles for unmanned aircraft have been cleared - scheduled for 2018 in the EC roadmap - an early adopter will be freight transport. This could drive a significant increase in aircraft movements at Heathrow or it could move freight away from central hubs to dispersed regional airfields, or change how we transport goods by air; particularly if the uptake of UAVs for freight means that passengers and goods on city-pair trade links are less interdependent. Further analysis should test the sensitivity of these cases and seek responses from the UAS and freight industries.

- 6) The technologies being developed for unmanned aircrafts will also enable single pilot operation of aircrafts to impact the economic model for airline operations. These technologies also have the potential to reduce separation between aircraft, altering assumptions about airspace and runway loading. These changes will happen within the forward view of this consultation.
- 7) Currently there is little reference to the security that will ensure the safety of the new airfields; these are significant issues for the expansion of Heathrow. Expanding Heathrow as the existing UK hub could create a bigger risk in a single-point of failure. Due regard must be given to resilience to the UK Plc – as evidenced by the Begg Report into Heathrow snow chaos in December 2010  
[http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/BeggReport220311\\_BAA.pdf](http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/BeggReport220311_BAA.pdf)
- 8) Noise represents a significant issue. New advances in navigation technology can mean that noise is concentrated. There needs to be clear guidance from the DfT on whether noise is to be concentrated or dispersed to ensure that fairness is maintained. Technology can provide repeatable and assured respite but more research should be commissioned to understand the human factors of annoyance in terms of periodicity of disturbance, noise level, and consideration of shadowing background noise footprints to blend into the environment.  
<http://www.heathrowairport.com/noise/future-plans/modernising-uk-airspace/heathrow%E2%80%99s-airspace-trials>

**Questions 3-4 relate to the Commission's appraisal and overall approach.**

*Q3 Do you have any comments on how the Commission has carried out its appraisal? The appraisal process is summarised in Section 2 of the Consultation Document.*

*Q4 In your view, are there any relevant factors that have not been fully addressed by the Commission to date?*

- 9) There are significant challenges that need to be addressed in relation to creating an appropriate rail link to the west of Heathrow airport. One option is the suggestion of a Heathrow Hub on the existing Great Western Main Line with a "people mover" connection to the airport. The introduction of HS2 and Crossrail to the rail strategy of London will also open up new possibilities for the transfer passengers to Heathrow.
- 10) Currently all freight to and from Heathrow is by road. By looking at the rail and road strategy alongside the airport expansion, there is scope to consider the opportunity to develop a rail-freight link, not just for cargo, but also for all the "supplies" that the maintenance, flight catering and retail stores consume.

**Questions 5-7 relate to how the Commission has appraised specific topics, constructed its sustainability appraisal and constructed its business case, respectively.**

*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?*

- 11) An added benefit as part of the appraisal of the options would have been the inclusion at the end of Section 3 of a summary of important facts derived by the assessment, perhaps displayed as a Table recording primarily the numbers obtained that could aid the public perception of the comparison. The increase in Air Traffic Management capacity by 2030 and 2050, the areas of land take, the various costs quoted, the number of houses at risk of demolition are examples that make for an easier comparison cross reference. Where such topics such as noise comparisons are difficult to condense into one such table, a cross reference to the relevant paragraph would possibly suffice.

**Question 8 asks if you have any further comments on any aspect of the Commission's work.**

*Q8 Do you have any other comments?*