

Increasing the UK's long-term aviation capacity

3 February 2015

Consultation Response -

This is a joint submission by the Institution of Civil Engineers (ICE) and Chartered Institution for Highways and Transportation (CIHT).

Both ICE and CIHT would like to thank the Commission for conducting this review to examine the scale and timing of any requirement for additional capacity to maintain the UK's position as Europe's most important aviation hub.

High quality international connectivity is vital to the UK's economic wellbeing. As identified by the Commission, our national hub airport, Heathrow, operates at almost full capacity. This limits the scope for improving connections to new markets and for UK regional connecting flights, exacerbates delays and undermines resilience to shocks such as severe weather. ICE and CIHT have long been strong proponents of the need to increase runway capacity in London and the South East and support the Commission's interim report findings that there is a strong case for attaching a greater strategic priority to transport investments which improve surface access to our airports

Whilst the institutions do not consider it appropriate in this review process to offer a preference of the shortlisted options, we would like to offer several recommendations which we feel must be discussed as part of the process, and within the remit of Question 1 of the consultation document.

About the Institution of Civil Engineers

The Institution of Civil Engineers (ICE) is a UK-based international organisation with over 85,000 members ranging from professional civil engineers to students. It is an educational and qualifying body and has charitable status under UK law. Founded in 1818, ICE has become recognised worldwide for its excellence as a centre of learning, as a qualifying body and as a public voice for the profession.

About the Chartered Institution of Highways & Transportation

CIHT is a membership organisation representing over 13,000 people who work in the highways and transportation sector. CIHT members plan, design, build, operate and maintain best-in-class transport systems and infrastructure, whilst respecting the imperatives of improving safety, ensuring economic competitiveness and minimising environmental impact.

Key points of our response

The Commission must evaluate all options against a range of criteria including cost, economic returns, CO2 impacts, impact on local air quality, integration with other modes (including opportunities for exploiting existing infrastructure), noise, protected ecology and impact on patterns of employment, business activity and urbanisation.

All options will involve major engineering, operational and project management challenges, with some options likely to require significantly greater time and resources than others to achieve.

The institutions believe that the proposal recommended by the Commission for an additional runway must:

1. Guarantee enhanced connectivity for UK regions via connecting services to regional airports which provide morning and evening business travel opportunities for onward international connectivity
2. Form part of an integrated national transport strategy
3. Contain a comprehensive surface access strategy with fast links to Central London
4. Mitigate negative air quality and noise impacts
5. Be deliverable

1. Enhanced connectivity

Regional airports play a crucial role both via direct point-to-point flights and through connecting flights to major hubs. The institutions believe that there is some evidence that the UK's regional airports' ability to fulfil this role is currently being undermined by a lack of affordable access to landing slots at Heathrow, as well as the negative impacts caused by capacity limitations and the consequential level of Air Passenger Duty (APD) that is significantly higher than the EU average.

The issue of APD has been partly addressed by Government for very long haul travel, but the Commission's recommendation should seek to address the lack of access to landing slots at Heathrow for UK regional airports either by increasing capacity there, or at another airport, or by management through the regulative process.

ICE and CIHT would urge the Commission's recommendation to include a Public Service Obligation (PSO) which preserves landing slots to key UK regional airports where a High Speed Rail option is not available.

2. National Transport Strategy

ICE and CIHT advocate development of an integrated national transport strategy for England, addressing: the contribution of transport to wider objectives; investment priorities; future demand; technological change; and giving clear guidance to national and sub-national transport policymakers.

We welcomed the Commission's interim report findings that 'there is a strong case for attaching a greater strategic priority to transport investments which improve surface access to our airports'.

To draw a comparison with another major infrastructure project, recent documents from the HS2 Chairman, Sir David Higgins, explained how HS2 was no longer thought of as a standalone end in itself, but rather as a catalyst for a much bigger process of change. It was one essential element in a strategy for transforming our transport system and, therefore, our economy as a whole. That change in mind-set was what has struck the Chairman most in continuing the work of [HS2 Plus](#) and preparing the report [Rebalancing Britain: Towards a National Transport Strategy](#) (2014).

It is this kind of strategic thinking which the Institutions endorse, and needs to be incorporated into the Commission's deliberations on long-term aviation capacity. The choice of an additional runway, wherever it is placed, must form part of an integrated national transport strategy for the UK and not be determined predominantly by current market pressures within the aviation sector.

3. Surface access

The Commission's recommended option must have provided a clear and demonstrable surface access strategy which provides clear detail on how the rail and road infrastructure would be impacted by increased traffic to the airport and how the required additional capacity would be provided. The Institutions agree with the Draft Aviation framework (2013), that whichever option is chosen must:

- Ensure easy and reliable access to the airport;
- Increase the use of public transport by airport passengers and workers, and;
- Minimise congestion and other local impacts¹.

Improved, reliable and cost-effective connections with Central London and the South East and, ideally, other major centres of population, should be an integral component of determining where an additional runway is located. Additionally, the surface access provision needs to be resilient to adverse weather events and traffic-related incidents.

4. Air quality and noise impacts

Air

Local air quality must be given serious consideration when evaluating where an additional runway should be located. ICE and CIHT note Jacobs' report 6 for the Airports Commission, 'Air Quality: baseline'², and acknowledge that emissions which impact on air quality are emitted from various sources including: cars, goods vehicles, aircraft, biomass boilers, incinerators, but the most common emission source within close proximity to sensitive receptors is road traffic.

The conclusion of the national and local assessments undertaken by Jacobs to measure current Particulate Matter and nitrogen oxide levels for the three sites were fairly positive. Without airport expansion, UK

¹ [Draft Aviation Framework. \(2013\). Page 83. Department for Transport](#)

² [Air Quality: baseline' \(2014\). Jacobs](#)

emissions of NO_x were expected to be “86.1% and 82.8% of 2020 Gothenburg Protocol emission targets in 2025 and 2030, respectively”. UK emissions of PM 2.5, were expected to be “100% and 103.5% of 2020 Gothenburg Protocol emission targets in 2025 and 2030, respectively”. “By 2030 UK emissions of PM 2.5 were expected to exceed the target by 3.5%” (Jacobs, 2014).

Detailed modelling of air quality impacts caused by new runways was not included and further work is needed to fully assess the increased nitrogen oxide and particulate matter that further air, road and other traffic would have at the local and national level.

Therefore, the developers for these proposed options must clearly and publically demonstrate how potential negative impacts would be mitigated before the construction of any runway scheme is able to proceed and levels must be continually reviewed.

Noise

Whilst it is widely accepted and reported in Jacob’s baseline report 5 on noise for the Airports Commission³ (2014) that significant reductions are predicted in all aviation noise metrics. Although a reduction in noise is predicted to occur, it should not be forgotten that there will be increased flight patterns as a result of an additional runway, and consideration of health impacts on the local population must be at the forefront of this decision-making process.

As with air quality, proposals for further development must also demonstrate that negative effects can be managed whilst still delivering the economic benefits of enhanced capacity.

5. Deliverability

ICE and CIHT are satisfied that the proposed schemes appear to be technically deliverable by the industry. However, in making its recommendations to Government, the Commission must have full confidence that the endorsed solution can be delivered within the planning and legal framework that exists in the UK at present. It must also be fundable and affordable by the developer and the aviation community. The institutions also call upon the Commission to recommend that each promoter commits to develop their scheme if chosen within a reasonable timescale and not use it to block competitors’ aspirations.

Both ICE and CIHT support the rapid delivery of enhanced capacity and connectivity. Capacity with benefits to users, together with wider economic benefits through improved connectivity and job creation, need to be delivered to a robust timetable.

Certainty of timing and clear information about the benefits of constructing an additional runway will help to ensure that the right resources can be put in place to deliver. Uncertainty, either in terms of the project’s aims or timetable, will lead to benefits not being realised, costs increasing, and difficulties in addressing objections. We support work to remove that uncertainty.

³ [Airports Commission 5: Noise Quality baseline \(2014\). Jacobs](#)