



*HEATHROW - STAGE 1B DESIGN PRINCIPLES –  
SLIGHTLY STEEPER APPROACHES*



5 June 2019

**Heathrow**

## **DISCLAIMER**

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## *PURPOSE OF THE ENGAGEMENT*

- To inform you of the context of the airspace change proposal for the Slightly Steeper Approaches (SSA).
- To develop and agree a set of design principles for our Slightly Steeper Approaches.
- Your input today will be used to make any amendments to our proposed design principles.



## WHAT IS A DESIGN PRINCIPLE?

- The CAP1616 guidance requires the production of design principles for **each airspace change**.
- Design principles essentially provide a list of high level criteria that the proposed airspace design options should meet. They also provide a means of analysing the impact of different design options and a framework for choosing between options.

### CAP1616 states that:

- the development of design principles should provide “a shortlist of principles to inform the development of airspace design options” and a “framework against which airspace design options are evaluated”.
- principles “are in no way immutable and, as a part of the process for the establishment of the airspace design principles, should be challenged as part of the ongoing dialogue with stakeholders.”



## BACKGROUND

- Between 2015 and 2017, Heathrow ran two live trials to investigate the impact of SSA on its operations, whilst capturing data on the actual environmental (noise) benefit realised.
- For operational reasons, which are explained fully in the trial reports, (available on our website [here](#)), these slightly steeper approaches are used by fewer than 2% of Heathrow's arrivals that flew RNAV\* approaches. The remainder flew the standard 3.0° approaches using the Instrument Landing System (ILS).
- Local communities supported the trials, which demonstrated that a small noise benefit can be provided whilst experiencing no negative environmental or operational dis-benefit and no change to the tracks over the ground of Heathrow's arrivals.
- Since the end of the (second) trial period, the CAA have allowed Heathrow to keep the slightly steeper RNAV approaches operational, for a temporary period, whilst Heathrow prepare and submit an Airspace Change Proposal (ACP) for their permanent adoption.

\* RNAV (Area Navigation) is a method of navigation without the need for navigational aids or beacons. RNAV arrivals follow the same lateral final approach track over the ground as the ILS arrivals.







# PROPOSED DESIGN PRINCIPLES - FOR DISCUSSION

Proposed Design Principle
Must be safe
Must reduce the noise footprint of Heathrow's arrivals by enabling aircraft to stay higher for longer
Must not increase the numbers of go-arounds
Must not reduce Heathrow's capacity
Must not change the lateral tracks of aircraft over the ground
Should not reduce the ability of arrivals to perform Continuous Descent Approach
Should maximise the number of aircraft able to fly the slightly steeper approach
Should not adversely increase pilot or ATC workload

We would like you to provide feedback on:

- Do you agree with the design principles proposed above?
- Would you like to make any amendments, or propose additional principles, to our proposed design principles?
- Would you prioritise any design principles over any others?



## *NEXT STEPS FOR SLIGHTLY STEEPER APPROACHES DESIGN PRINCIPLES*

- Any comments and feedback need to be sent to [airspace@heathrow.com](mailto:airspace@heathrow.com) by 21st June.
- Once we have received and analysed the feedback from all our stakeholders, we will develop our final set of prioritised design principles.
- Prior to submitting these to the CAA we will inform you of the results of our engagement. We will then submit the final set of design principles to the CAA for the 'Stage 1 Define Gateway' in August 2019.
- We will continue to engage with you at key stages throughout the CAP1616 process for the airspace change for the permanent adoption of Slightly Steeper Approaches.





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