APPENDIX D - STAKEHOLDERS ASKED, HEATHROW ANSWERED

HCEB

Q1. Are there any environmental impacts of Slightly Steeper Approaches (SSA) and if so, have they been considered? Environmental impacts can include whether SSA create additional pollution or noise in other locations.

A1. The SSA trials found peak noise (Sound Exposure Level - SEL) reductions of 1.4dBA and peak increases of 0.1dBA with overall average reductions of 0.5dBA. There was no increase in track miles flown or Continuous Descent Approach (CDA) performance (therefore CO_2). No negative environmental impacts were found however, the Options Appraisal of this ACP will re-confirm all environmental impacts.

Q2. HAL should consider references to the feedback that communities have given (in support of SSA) to aid transparency. We would suggest something similar to the 5 bullet points on page 3.

A2. On page 5 of our Slightly Steeper Approaches briefing document, we provided a list, with links to the previous engagement; meeting notes 30 June 2016 HCNF Working Group 2 and meeting notes 30 June 2016 HCNF Working Group 2, where Slightly Steeper Approaches were referred to as a 'win-win' during one community group forum. Statistics on community feedback can also be found in the trial report Heathrow Slightly Steeper Approach Trial 2017 Final Report.

Q3. Reference is made to "local communities have supported the trials", does this mean that there are communities that are not local who have not supported the trials?

A3. No - we mean all communities represented by the Heathrow Community Noise Forum (HCNF) and Heathrow Airport Consultative Committee (HACC - as it was known at the time).

Q4. Where you refer to stakeholder groups under the table of consultees, does this refer to those in the table? Are local communities considered to be part of this stakeholder group?

A4. Stage 1 of the CAA's CAP1616 process requires us to develop and agree design principles with elected representatives. For this ACP, we consider local community groups to be those represented by the HCEB and HCNF.

Q5. Will any communities experience negative effects from what is proposed? If so, which communities and how?

A5. The trial found peak noise (SEL) reductions of 1.4dBA and peak increase of 0.1dBA with overall average reductions of 0.5dBA. Any impacts to communities will be assessed in the CAP1616 options appraisal stages, Stage 2B and Stage 3A.

Q6. Is there scope for a review of SSA should issues become apparent at a later stage?

A6. These steeper approaches are already in operation at Heathrow and have been since 2017. Stage 7 of the Airspace Change Process is known as a 'Post Implementation Review', performed by the CAA 12 months after permanent introduction. This is where the CAA checks to ensure that the changes proposed, and their impacts are as articulated in the Airspace Change Proposal.

Q7. The technical details behind the short document are beyond our expertise and that of most lay people, so we would suggest that HAL considers whether or not their assessment should be peer reviewed?

A7. Trials were analysed by Environmental Research and Consultancy Department (ERCD). We are happy to discuss any areas of uncertainty at an HCEB Working Group.

Q8. The design principles seem good and we must assume that none are incompatible – if not what if steeper flights did reduce Heathrow's capacity – which design principle would have priority?

A8. All 'musts' must be achieved. However, we already know from our trials that the SSA's already meet all our proposed design principles.

Q9. Are the design principles ranked in order?

A9. No, they are not in order but all 'musts' are mandatory. Due to the nature of this proposal we do not anticipate there will be any options (in stages 2 & 3 of the ACP) that require choices to be made, therefore there is no need to prioritise the principles. This is different to the other on-going Heathrow Airspace Change Proposals.

Q10. Will you be switching from ILS to RNAV?

A10. No, ILS will remain at 3.0˚ and will still be the most common landing procedure. In the future we aim to introduce increased angles of approach for all Heathrow arrivals, including ILS when introducing new airspace for an expanded Heathrow as explained during our Airspace and Future Operations Consultation in January 2019.

WINDSOR & MAIDENHEAD

Q11. Is it correct that the heavier and noisier long-haul aircraft are unable to use this procedure, due to aircraft approach performance and the infrequency of pilots using Heathrow?

A11. No, there is no relationship between the size of aircraft and whether they can fly the RNAV approaches. The trial reports detail the aircraft types which flew the RNAV approaches and these include a mix on short and long-haul aircraft.

QATAR AIRWAYS & BALPA

Q12. There is a minimum temperature for promulgated approaches, but no maximum. Should these approaches be restricted to 30°C and below?

A12. The CAA does not currently promulgate a maximum temperature for their use, this is left to operators to determine. During the trials the maximum temperature was 34˚C equating to an RNAV approach angle of 3.34˚ which was performed without issue. We will give consideration to promulgating a maximum temperature which equates to a 3.49˚ angle as approach angles above this are not allowed. However, this will need to be discussed with the CAA.

BALPA & BRITISH AIRWAYS

Q13. Will the ILS continue to be available to pilots who do not want to or are unable to fly the RNAV slightly steeper approach?

A13. Yes, and we expect this will continue to be the most common approach flown.

BRITISH AIRWAYS

Q14. Will the PAPI's (Precision Approach Path Indicators) be set at 3.2° once the procedure is permanently implemented?

A14. No, the PAPI's have remained at 3.0˚ during the ongoing trial. No reports have been received in relation to this, although it was discussed at length before the trials began. Once these slightly steeper approaches are made permanent, the PAPI's will remain at 3.0˚ as the most common approach flown will remain a 3.0˚ ILS.

LUFTHANSA GROUP

Q15. How will Heathrow propose to enable types of aircraft restricted to a maximum glideslope of 3.15° to fly an Autoland approach?

A15. The Autoland function is not relevant to this Airspace Change Proposal.

BRITISH AIRWAYS

Q16. Will there be two separate ILS approaches, with different glideslopes?

A16. No. This Airspace Change Proposal relates only to the 3.2˚ RNAV approaches which are already in operation at Heathrow. The ILS' will remain at 3.0˚. In the future we aim to introduce increased angles of approach for all Heathrow arrivals, including ILS when introducing new airspace for an expanded Heathrow as explained during our Airspace and Future Operations Consultation in January 2019.

POINTS RAISED DURING FEEDBACK & HEATHROW'S RESPONSES

GENERAL AVIATION ALLIANCE

P1. An assumption that GA including sporting and recreational aviation is entitled to continued safe use of airspace and that commercial aviation does not have a right to limit airspace access.

R1. No changes to Controlled Airspace boundaries or the procedures and priorities for accommodating other airspace users' access are required for this Airspace Change proposal.

P2. Sponsors must show how they are integrating their proposal within the overall UK airspace modernisation context (for example, proposals which do not connect efficiently between upper and lower airspace (potentially under different airspace "management") would only inhibit overall airspace efficiency and therefore not receive our support).

R2. Agree, however this Airspace Change Proposal has no effect on the UK airspace network.

P3. Reiteration that the UK airspace's default classification is G.

R3. Slightly Steeper Approaches are entirely within existing Class D controlled airspace boundary.

P4. Reiteration that Class E airspace default is without the addition of a TMZ or RMZ.

R4. Slightly Steeper Approaches are entirely within existing Class D controlled airspace boundary.

P5. Expectation that data used, particularly forecasts, will be verifiable including details of any and all assumptions.

R5. Forecasts will be in line with CAP1616 requirements for baseline.

P6. Expectation that there will be proper validation of forecast traffic levels.

R6. Forecasts will be in line with CAP1616 requirements for baseline.

P7. Expectation that there will be proper analysis of overall airspace safety changes, i.e. based on modelling and evidence rather than purely subjective opinion.

R7. The two live trials on Slightly Steeper Approaches provide tangible evidence of their safety.

P8. Minimum size of controlled airspace.

R8. Slightly Steeper Approaches are entirely within existing Class D controlled airspace boundary.

P9. Steeper and continuous climbs and descents for cost and environmental benefits as well as minimisation of CAS footprint.

R9. This Airspace Change proposes steeper descents. Whilst the live trials found evidence of small reductions in noise and no impact to CDA performance, they found no evidence to support benefits in fuel reduction and are contained within the existing Class D controlled airspace boundary.

P10. Use of Class E airspace as an alternative to class A, C or D airspace.

R10. This Airspace Change does not propose any change to existing Controlled Airspace boundaries or classifications.

P11.Optimisation of the development work above and below the 8,000ft NATS en-route split.

R11. This Airspace Change proposal has no effect on the UK airspace network.

P12. Flexible use of airspace including interoperability with existing e-conspicuity, e.g. FLARM and PilotAware.

R12. This Airspace Change does not propose any change to existing Controlled Airspace boundaries or classifications or requirements and procedures for access.

P13. Efficient consultation.

R13. In addition to this engagement on design principles for Slightly Steeper Approaches, we will be re-engaging on our comprehensive list of options in September/October 2019 and will carry out a statutory consultation in 2020 in line with CAP1616 requirements.