

2. Proposed Scheme need and alternatives

2.1 Need for the proposed variations

Variation to Condition 8

- 2.1.1 In 2012, the Applicant submitted the application for the 2014 Planning Permission to increase the capacity of LLA to 18 mppa. This was accompanied by an ES that, amongst other topics, assessed the anticipated noise impact of the increase in passenger numbers. As part of that process, the airport operators forecast included an anticipated trajectory of passenger numbers, year on year. The forecast predicted that LLA would reach 17.3 mppa from 2026 and grow to 17.8 mppa from 2028 and remain at this level until 2030. Using data regarding the forecast of passenger numbers, a forecast was made of flight numbers, and the anticipated make-up of those flights in regarding their make and model, which allowed the calculation of their likely noise generation.
- 2.1.2 Since 2012, LLA has experienced unprecedented levels of growth in passenger numbers which are considerably above those predicted in the 2014 Planning Permission and was the 5th busiest airport in the UK by passenger numbers in 2019⁹. Passenger levels at LLA have increased by more than 1 mppa each year on average over the last three years from 2017 – 2019, reaching the 18 mppa cap in 2019¹⁰, almost a decade earlier than forecast in the 2014 Planning Permission.
- 2.1.3 Currently, the COVID-19 pandemic has brought upon many uncertainties with regards to passenger forecasts. However, it is anticipated that LLA will recover swiftly from the temporary COVID-19 implications from travel restrictions (see **Section 2.2** and the **Planning Statement** (document reference **41431EP12V103**), and LLA has been the second busiest airport in the UK (by passenger numbers) during these travel restrictions (in May and June 2020), after Heathrow.
- 2.1.4 When granting the 2014 Planning Permission LBC determined that an 18 million cap on annual passenger numbers should be put in place. Although, it also accepted that passenger capacity is not a rigid number as it can only be based on a forecast using contemporary data. The decision notice acknowledged (within the reasons for granting planning permission) that airport capacity assessments use a range rather than a single figure in order to reflect uncertainties, for example whether patterns of traffic continue at the same level or return to peak historic ratios. It was accepted that the passenger capacity range at LLA as a result of the 2014 Planning Permission would be between 18 and 20 mppa.
- 2.1.5 The forecasts used in the 2014 Planning Permission estimated that an 18 mppa cap would accommodate steady growth in passenger numbers up until 2028. However, as growth in passenger numbers has occurred at a much faster rate than was originally forecasted the Applicant is seeking to increase the passenger cap to 19 mppa to allow LLA to continue to grow effectively and sustainably in the short-term.
- 2.1.6 The Applicant has carried out further capacity analysis through the airport Master Plan assessment including traffic forecast and capacity analysis¹¹. This analysis confirmed that the existing landside

⁹ The CAA, UK Airports – Annual Statements of Movements, Passengers, and Cargo [online]. Available at: <https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-Airport-data/Airport-data-2019/> [Checked November 2020].

¹⁰ LLA, Annual Monitoring Reports [online]. Available at: <https://www.london-luton.co.uk/corporate/community/noise/annual-monitoring-reports> [Checked November 2020].

¹¹ London Luton Airport (2020). London Luton Airport Master Plan 19 MPPA draft report. Available [online] at: http://www.luton19mppa.info/Downloads/Draft_Masterplan.pdf [Accessed November 2020].

and airside facilities at LLA have sufficient capacity to accommodate the additional 1 mppa to reach 19 mppa, without the need for additional infrastructure.

- 2.1.7 Despite the impacts of COVID-19, which has seen passenger numbers drop from 18 million in 2019 to 5 million in 2020, these changes are being sought now so LLA is in a good position for the future and can continue to create benefits for the passengers, the supply chain, and the local economy. While it is unlikely passenger numbers will return for several years, LLA must prepare for the future and this application is focused on making sure LLA has the best possible footing to bounce back and help the local and national economy recover.

Variation to Condition 10

- 2.1.8 The variation to Condition 10 is required in order to take account of the fact that the introduction of new quieter aircraft has not kept pace with the unprecedented growth in passenger demand. The passenger level reached the 18 mppa cap in 2019¹⁰.
- 2.1.9 New quieter aircraft started to come into operation from 2017. However, the new quieter aircraft have not entered airlines' fleets at the rate that was anticipated or required to meet the noise contour assessed as part of the 2014 Planning Permission. As a consequence, the delivery of re-engined aircraft has not aligned to the unexpected passenger growth. The existing aircraft mix being utilised at LLA is older and generates more noise than the aircraft mix associated with the 16.6 mppa that was anticipated in the 2014 Planning Permission.
- 2.1.10 In addition to this, there has been a delay in the manufacture of Airbus Neo aircraft due to production issues at engine supplier Pratt and Whitney. There has also been the grounding of Boeing 737Max aircraft due to safety concerns. Both these issues mean that there are lower numbers of new generation aircraft at LLA compared to the original assumptions made as part of the 2014 Planning Permission's 2028 forecast for 18 mppa.
- 2.1.11 Airlines operating at LLA are upgrading their aircraft fleet between 2019 and 2026. However, the Applicant has no control over either the rate of manufacture or the introduction of those new aircraft. Although there are incentives to introduce the next generation aircraft as part of the airlines' fleets that operate out of the airport, scheduling and other airline considerations dictate which aircraft are allocated from each fleet for particular flights at LLA. Furthermore, the Applicant has limited means to control the rate and timing of the technological and commercial transition onto the next generation aircraft. Nevertheless, airlines at LLA have placed orders for these modern aircraft and continue to do so, and it is anticipated that these aircraft would be delivered between 2021 and 2028.
- 2.1.12 Data from the noise monitoring carried out by LLA (and published as part of LLA's annual monitoring reports) revealed that the contours as set in Condition 10 have been exceeded since 2017, albeit only slightly. The Applicant has looked extensively at their operations to ascertain why the contour was breached and what measures can reasonably be taken to guard against further breaches (see **Section 3.4**).
- 2.1.13 A series of severe weather events, combined with European Air Traffic Control disruption, resulted in flights that were scheduled to arrive in the daytime period instead arrived in the night-time period. The additional unplanned night-time flights contributed to Condition 10 being exceeded (circa 500 movements in the night period that were scheduled for the day period), and there is no mechanism to permit the exclusion of these movements from the assessment as there is with the movement and QC limits.
- 2.1.14 Following the exceedance of the night-time contour limit in 2017 the airport put in place a suite of operational restrictions to curb the number of movements during the night-time period to safeguard against a further exceedance of the limit. However, circumstances outside of the

Applicant's control such as continued disruption of European air traffic control such as industrial actions and weather events have meant that the contour was breached again in the following years.

- 2.1.15 Due to increased passenger numbers, slow introduction of new generation aircraft, and severe weather events, the Applicant is in a situation whereby the airport cannot operate to its full permitted 18 mppa capacity nor can it sustainably grow to 19 mppa whilst being confident that the restrictions of Condition 10 can be met. Therefore, a variation to Condition 10 has been proposed.

2.2 Implications of COVID-19

- 2.2.1 COVID-19 has had a devastating effect across the globe, with the transportation industry being one of the worst affected sectors. This has affected the operation of LLA considerably throughout 2020. However, LLA expects the impact of COVID-19 to be temporary with the operation of the airport returning to 2019 levels as described below.

Impact on passenger growth

- 2.2.1 Due to the temporary COVID-19 implications on travel restrictions, the Applicant is forecasting to serve far fewer passengers in 2020 than originally anticipated. This ranges from 5.8 mppa to 7.5 mppa.
- 2.2.2 It is anticipated that LLA would recover relatively swiftly from the temporary COVID-19 implications, having been the second busiest airport in the UK by passenger numbers during the travel restrictions (e.g. May and June 2020) after Heathrow. LLAOL expects passenger volumes to recover to 18 mppa by 2023 and could grow beyond 18 mppa in 2024. Therefore, the proposed variation to Condition 8 is being sought.
- 2.2.3 LLA's passenger recovery forecast is based on industry-wide research and forecast by Airports Council International (ACI). ACI are an industry body representing airports throughout the world, including LLA. ACI carried out a survey on the likely recovery of passenger demand to / from and within Europe in 2020 and 2021. The Applicant has further extrapolated those recovery rates beyond December 2021 to the end of 2024.
- 2.2.4 As part of the survey, ACI also asked the industry experts to answer specific questions related to the recovery. Considering LLA's heavy reliance on Low Cost Carriers (LCCs), the answers from the industry experts support the view that LLA would recover at a faster rate than other major London airports such as Heathrow or Gatwick.
- 2.2.5 The Applicant has applied the ACI research and industry consensus on passenger recovery to LLA passenger levels leading up to 2024 to the current 18 mppa cap. In the 'high' recovery scenario, it is reasonable to expect passenger volumes at LLA to return to 18 mppa in 2022. In the 'medium' recovery scenario, the passenger volumes at LLA are expected to return to 18 mppa in 2023 with the 'low' recovery scenario seeing the passenger volumes at LLA to recover to 18 mppa early 2024. However, it is noteworthy that only 12% of the ACI contributors believe the 'low' recovery scenario is a likely scenario for LLA. Furthermore, the ACI forecast reflects Europe as a whole and LLA's location as part of the London Aviation System and its preponderance of LCCs would suggest that the passenger recovery at LLA should be faster than the average of all European airports reflected in the ACI aggregated consensus.
- 2.2.6 Based on the ACI's industry insight, it is reasonable to believe that LLA will recover back to 18 mppa in line with the 'medium' scenario. This means that LLA could realistically be back at 18 mppa in 2023 and be growing beyond 18 mppa in 2024. As a result, the airport is likely to increase to 19 mppa in 2024. Additionally, given the current significant uncertainties in the market, it was determined to continue to progress with the Proposed Scheme as it would be the best approach to

LLA's recovery, therefore assuming that the airport will continue with the forecasted growth. Therefore, the 2024 passenger forecast remains a reasonable view of future operations and has been assumed to be a representation of the realistic worst-case scenario for growth at the airport. As such, the future scenarios analysed in this ES have used a 19 mppa scenario in 2024 and a 19 mppa scenario in 2028.

Impact on noise contours

- 2.2.1 It is noteworthy that whilst the passenger forecasts are reduced due to the temporary COVID-19 implications, the Applicant is still forecasting the summer aircraft movements (i.e. the movements on which the noise contours are based) to remain as originally forecasted. This is principally due to the fact that the European Commission is expected to retain the airport slot requirements, which oblige airlines to use their allocated take-off and landing slots in order to keep them the following year.
- 2.2.2 In March 2020, the European Commission announced that the airport slot requirements would be temporarily suspended until October 2020. This means that airlines retain slots secured in 2019 (i.e. when LLA operated at 18 mppa) to operate in 2021 regardless of whether they used the slots in 2020.
- 2.2.3 The Applicant cannot directly predict airlines behaviours in the future but the fundamental pressure on the London Aviation System remains (see **Section 3.4**), and slots at LLA have become increasingly valuable to the point where they are now traded for significant consideration. LLA is the third airport in the country to witness slot trades after Heathrow and Gatwick. It can therefore be expected that airlines will seek to retain those slots at LLA that are deemed to hold value.
- 2.2.4 Unless the European Commission continues the temporary relaxation on slot rules from summer 2021 into summer 2022, it is reasonable to assume that the slots seen in 2019 will recur in 2021 and onwards. If the airlines did not use their slots in 2021, then they would lose their slots for 2022 at a time when passenger demand is expected to return and approach the pre-pandemic levels. Airlines at LLA are likely to want to avoid this situation, and to continue using their slots in 2021. This means that airlines may fly their aircraft with reduced passenger loads, but the overall summer aircraft movements at LLA in 2021 and onwards would remain as originally forecasted by the Applicant. As such, a variation to Condition 10 is being sought.

2.3 Consideration of alternatives

Introduction

- 2.3.1 The 2017 EIA Regulations make two references to the consideration of alternatives, as follows.
- In paragraph 18(3)(d) of Part 5 it states that an ES should include "*a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment.*"
 - Paragraph 2 of Schedule 4 states that an ES should include "*A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.*"
- 2.3.2 As stated above, only where reasonable alternatives have been studied, do they need to be assessed.

- 2.3.3 The only potential alternative to the Proposed Scheme that was considered by the Applicant was to continue to operate at the 18 mppa cap. This is termed the 'do-nothing' (or 'without development') scenario. However, to progress with this alternative would not have delivered the anticipated economic growth. This is because restrictions would have to be placed on airlines to be confident that compliance with conditions attached to the 2014 Planning Permission was achievable. Furthermore, without restrictions on airlines there would be a risk of repeated breaches of Condition 10. As such, the 'doing nothing' was not considered to be a reasonable alternative.
- 2.3.4 Notwithstanding, the assessments presented throughout this ES use the 18 mppa 'do nothing' scenario as the current and future baseline and present the comparative environmental effects of these scenarios against those assessed for the Proposed Scheme.
- 2.3.5 As described in 2.2.3, there are no *reasonable* alternatives to the Proposed Scheme studied by the Applicant. This ES fulfils the requirements relating to alternatives under the 2017 Regulations.