Introduction of RNP AR Procedures at EGLC

Gateway Documentation:
Stage 1 Define
ACP-2025-003

EGLC RNP AR ST1 Define Issue 1

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Change History

Issue	Month/Year	Changes this issue (most recent first)
Issue 1	May/2025	n/a

Referenced Documents

Ref No	Name and description	Links
1.	CAP1616 Edition 5	Link
2.	Introduction of RNP AR Procedures at EGLC Airspace Change Portal Page	Link
3.	Statement of Need	Link
4.	Assessment Meeting Minutes	Link
5.	UK Aeronautical Information Publication, March 2025	Link
6.	CAP1498 Definition of Overflight, Edition 2	Link
7.	London City Airport Annual Performance Report 2023, Annexes	Link
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10.	CAP1616i: Environmental Assessment Requirements and Guidance for Airspace Change Proposals, 2023	Link
11.	Airport Surface Access Strategy 2017-2025	Link
12.	London City Airport Noise Action Plan, 2023	Link
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15.	Airspace Modernisation Strategy 2030-2040 Part 1: Strategic objectives and enablers, CAP1711, 2024	Link
16.	Air Navigation Guidance, 2017	Link
17.	CAP1616f: Guidance on Airspace Change Process for Permanent Airspace Change Proposals, 2023	Link

1. Introduction

1.1 Background

1.1.1 In line with Government objectives to drive economic growth and sustainable aviation, London City Airport (LCY/EGLC) seeks to modernise its procedures by introducing RNP AR (Required Navigation Performance Authorisation Required) approaches.

1.1.2 RNP AR is an advanced navigation procedure, which will enable more modern aircraft to operate at the airport facilitating 'safer', 'quieter' and 'cleaner' journeys. Additionally, these procedures offer significant operational advantages in the constrained obstacle environment at LCY, improving access to a wider range of modern aircraft, and creating more capacity for the benefit of both passengers and communities, whilst remaining compliant with existing movement limits, noise and operational restrictions in the surrounding urban area.

1.1.3 The process that must be followed to deliver airspace change is defined by the Civil Aviation Authority (CAA) in the CAP1616 Airspace Change Process [Ref 1]. LCY formally commenced an Airspace Change Proposal (ACP) [Ref 2] in January 2025 through the submission of a Statement of Need to the CAA [Ref 3]. This outlined the requirement for an airspace change to implement RNP AR procedures at the airport. An assessment meeting was held with the CAA in March 2025, where LCY expanded upon their Statement of Need and submitted a proposed timeline – as outlined in the Assessment Meeting Minutes [Ref 4].

1.1.4 This document forms part of the documentation required under CAP1616; it aims to provide adequate evidence to satisfy the Stage 1 Define Gateway, Design Principles. This document presents the current-day scenario and describes the stakeholder engagement undertaken by LCY on the draft design principles, demonstrating how feedback influenced the evolution of the final design principles. Design principles encompass safety, regulatory, environmental and operational criteria and strategic policy objectives, forming a qualitative framework against which airspace change design options will be developed and evaluated in the future stages of the CAP1616 process.

1.1.5 In April 2025, LCY commenced Stage 1 engagement and contacted 165 key stakeholders including local councils, Members of Parliament (MPs), London Assembly representatives, community groups, the airport consultative committee, business groups and aviation stakeholders, that could potentially be overflown below 7,000ft as a result of this airspace change. During the Stage 1 engagement, online workshops with key stakeholders took place and LCY provided context on the airspace change proposal, the CAP1616 process and the draft design principles, and requested feedback in order to inform the development of the draft design principles. Questions from stakeholders were answered during the workshops and by email, and a consolidated list of all Qs & As was provided online. Following the online workshops, the presentation was uploaded to the LCY airspace change website and stakeholders were invited to submit their feedback via an electronic questionnaire. Stakeholders were contacted via email and given 4 weeks to provide their feedback. It was emphasised that the draft design principles were for discussion, and that they would be further developed and finalised based on the feedback received.

1.1.6 The list of stakeholders contacted, along with all correspondence, has been supplied alongside this document as supporting records for this submission.

1.1.7 During the engagement activities, 65 stakeholders attended online workshops, and we received responses and feedback from 12 stakeholders which were

analysed and used to update the draft design principles. A copy of the final design principles was then circulated to all stakeholders who had engaged in the process.

1.1.8 This document is submitted to the CAA to meet the Stage 1 Define gateway assessment in May 2025. Engagement on the design options will take place during Stage 2 later in 2025, at which point they will be evaluated against the final design principles as presented in this document. A formal public consultation will then occur in Stage 3, which is currently anticipated to commence in early 2026. Full implementation of any airspace change is anticipated to be completed in 2027.

2. How this document is laid out

2.1.1 Section 4, Current-Day Scenario, describes the current airspace design (including today's airspace design, flight procedures and flight behaviours/patterns) to inform the selection and development of the design principles (DPs).

2.1.2 Section 6, Airspace Design Principles and Priorities, lists the final DPs, amended as a result of the feedback we received during the engagement process, including additional DPs received as suggestions from stakeholders.

2.1.3 Section 7.2, Engagement Response, discusses each draft DP presented in the engagement material in turn:

- We asked: The original discussion text of a draft DP (we presented, stakeholders provided feedback)
- You said: A summary of the feedback and how this has influenced the draft DP
- We did: Amended DP (unless original was maintained)
- Feedback about additional DPs that should be considered.

2.1.4 Section 7.3, Engagement Evidence, summarises the key stakeholders who were included in the engagement, the workshops held, and the numbers of responses received.

3. Statement of Need

3.1.1 The Statement of Need (SoN), [Ref 3], is the first step an airspace sponsor must take to initiate an airspace change proposal with the CAA.

3.1.2 The objectives of this airspace change proposal raised in the SoN are summarised below. The full document is published on the CAA's Airspace Change Portal.

> The introduction of RNP AR (GNSS) based procedures to London City Airport (EGLC) Runway 27 and Runway 09, using existing tracks over the ground and non-standard approach angles to facilitate the operation of cleaner, quieter, new generation aircraft at the airport. This will be achieved while preserving the existing ground-based instrument approach procedures and approach angles used by the current fleet.
>
> The proposal seeks to address the opportunity of introducing cleaner, quieter, new generation aircraft at London City Airport (EGLC) by implementing RNP AR procedures with non-standard approach angles rather than through aircraft steep-approach certification. This would deliver complimentary benefits, in advance of changes under the wider FASI airspace change programme, by modernising approach procedures to address airspace demand and secure the most efficient use of airspace, whilst maintaining existing movement limits

and complying with noise and operational restrictions in the surrounding urban area. New RNP AR procedures will improve access to a wider range of modern aircraft ensuring the expeditious flow of traffic in a safe and sustainable way, in line with the strategic objectives of the Airspace Modernisation Strategy. Similarly, the additional navigational accuracy, integrity, and functional capabilities offered by RNP AR are likely to offer significant operational advantages in the constrained obstacle environment at EGLC whilst preserving or improving safety of operation. Environmentally, the proposal aims to limit and, where possible, reduce the number of people significantly affected by adverse impacts from aircraft noise by introducing quieter aircraft on existing tracks over the ground, The proposal also seeks to balance economic benefits with the need to maximise use of the airport's existing and future infrastructure while preserving ground-based approach procedures for the current fleet.

The current airspace design at London City Airport (EGLC) is characterised by steep approach and departure procedures due to its urban location and proximity to restricted airspace. Aircraft currently operate under a 5.5-degree glideslope, significantly steeper than the standard 3-degree approaches at most airports, due to the rich obstacle environment and tall buildings particularly to the west of the airport. Ground-based navigation aids, such as the Instrument Landing System (ILS), guide aircraft along predefined routes for arrivals and departures. The airport operates within Class D controlled airspace, with close coordination required between London City and surrounding airports to manage traffic flows and ensure separation. These procedures are tailored to accommodate the current fleet mix, the ground-based navigation aids and the specific operational constraints of EGLC.

The current air traffic at London City Airport (EGLC) consists of both commercial and private operators handling predominantly domestic and short-haul European flights. Our current baseline assumptions would see 49,000 ATMs in 2026 growing to 79,000ATMs by 2035. The split between arrival and departure traffic is broadly 50/50%. Introducing RNP AR procedures would enable EGLC to make the best use of its existing runway, enhancing the airport's throughput and operational efficiency by accommodating a new generation of quieter, more efficient aircraft, all while staying within the existing movement and passenger limits and complying with noise and operational restrictions in the surrounding urban area.

4. Current-Day Scenario

4.1.1 The following sections illustrate the typical flight operation at LCY and should be considered the baseline 'do-nothing' option if no airspace change was to take place.

4.2 Airspace Design: The airport and its runways

Figure 1: Orientation of London City Airport's runway (extract from Google Earth, 2025)

4.2.1 LCY has one strip of concrete and asphalt that can be used by aircraft to take-off or land in either direction, making two runways; one where aircraft take-off or land heading east (Runway 09) and one where they head west (Runway 27). The wind direction determines which runway is used. In the southern UK, the prevailing wind is from the west, meaning that Runway 27 is used more often than Runway 09. Averaged over the last 6 years, the westerly Runway 27 is used 2/3 of the time, twice as frequently as easterly Runway 09[1].

4.3 Airspace Design: Instrument Flight Procedures

4.3.1 The aircraft fleet using LCY all comply with Performance Based Navigation (PBN) navigation standards, specifically RNAV1 (Area Navigation, part of the wider PBN standard).

4.3.2 Aircraft and crews equipped and approved for RNAV 1 operations fly into LCY via RNAV1arrival 'transitions' which are pre-programmed systemised flight paths that link the exit from the higher holding area to the final approach for the runway.

4.3.3 Typically they are followed accurately in three dimensions by an aircraft's flight management system with minimal pilot or controller intervention, though at the higher (outer) areas controllers often tactically instruct aircraft to bypass the full length of the route (if the traffic situation allows) and take a shortcut with reduced track miles, and therefore reduced CO_2 and fuel burn, rejoining the transition closer to the airport.

4.3.4 The procedures for inbound aircraft to LCY are detailed in the UK Aeronautical Publication (AIP) [Ref 5] AD 2-EGLC-7-RNAV 1 arrival charts, and reproduced in Figure 2, Figure 3 and Figure 4 below. These procedures are additionally described in sections 5.2 and 5.5.

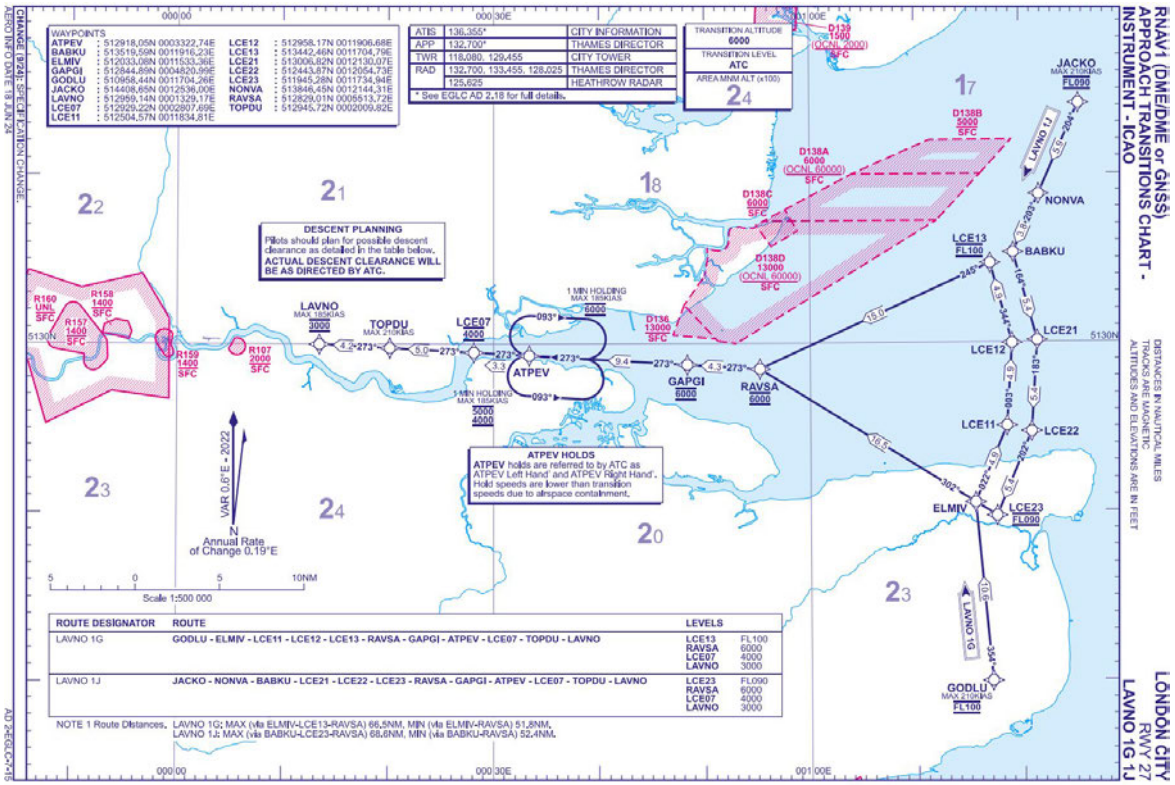

Figure 2: RNAV1 (DME/DME or GNSS) APPROACH TRANSITIONS CHART - INSTRUMENT RWY 27 LAVNO 1G 1J – ICAO. UK AIP, March 2025.

[1] Runway analysis for 1 Jan 2019 to 31 Dec 2024: LCY Airport Operational Database data. Easterly 33.5% westerly 66.4%.

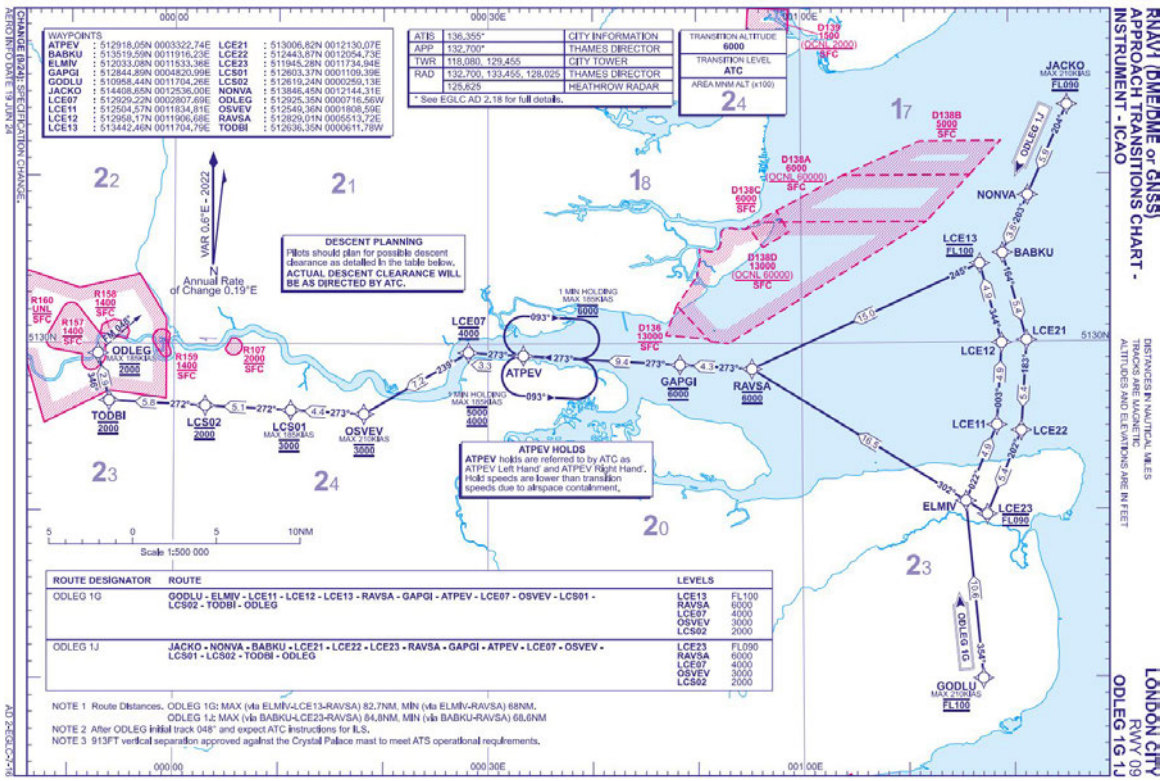

Figure 3: RNAV1 (DME/DME or GNSS) APPROACH TRANSITIONS CHART - INSTRUMENT RWY 09 ODLEG 1G 1J – ICAO. UK AIP, March 2025.

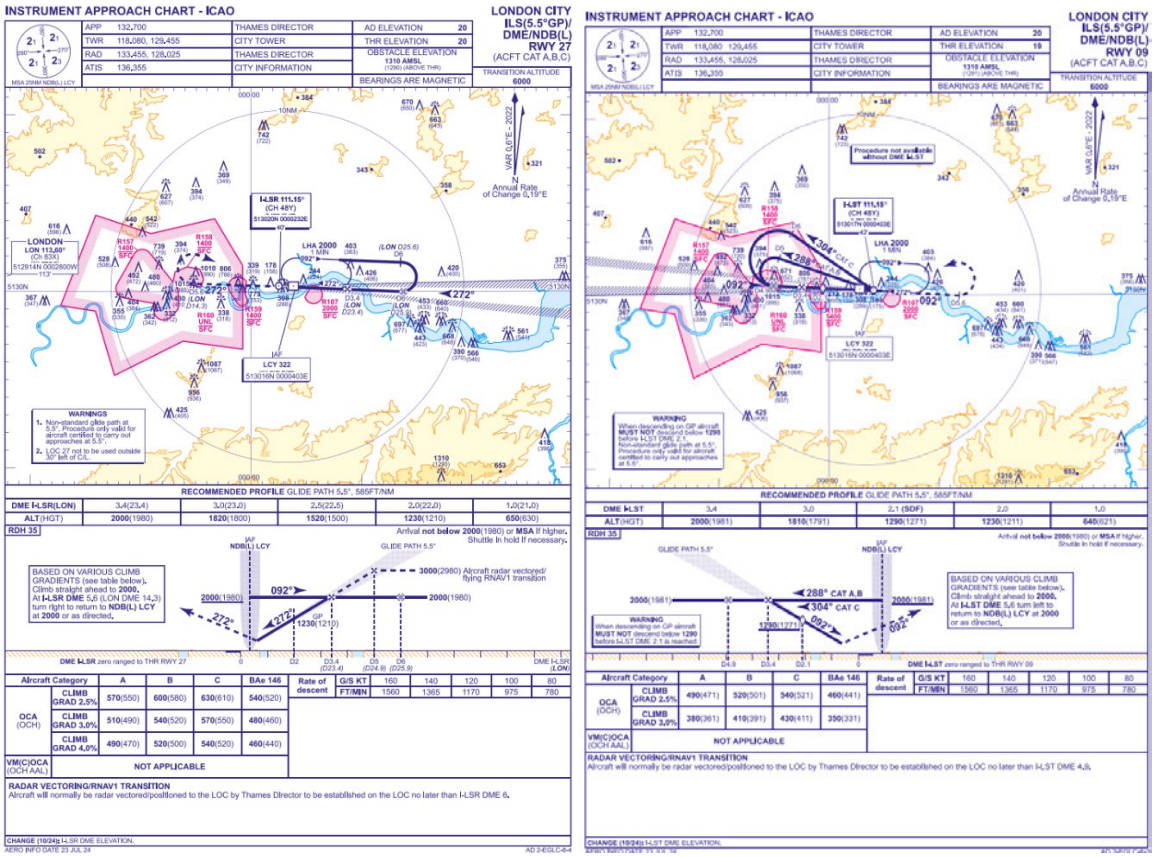

Figure 4: (Left) INSTRUMENT APPROACH CHART ILS (5.5° GP)/DME/NDB(L) RWY 27 (CAT A,B,C) – ICAO. (Right) INSTRUMENT APPROACH CHART ILS (5.5° GP)/DME/NDB(L) RWY 09 (CAT A,B,C) – ICAO. UK AIP, March 2025.

4.4 Airspace Usage: air traffic movements, aircraft types and airline operators

4.4.1 An 'air traffic movement' is defined as an arrival aircraft or a departure aircraft at LCY.

4.4.2 LCY had 50,948 movements in 2024[2]; half were arrivals, half were departures.

4.4.3 LCY does not display seasonal peaks and the numbers of arrivals and departures are broadly consistent across the year.

4.4.4 Approximately 12,512 air traffic movements took place over the summer period. For airspace change purposes, 'summer' is defined as the 92-day period from 16th June to 15th September[3].

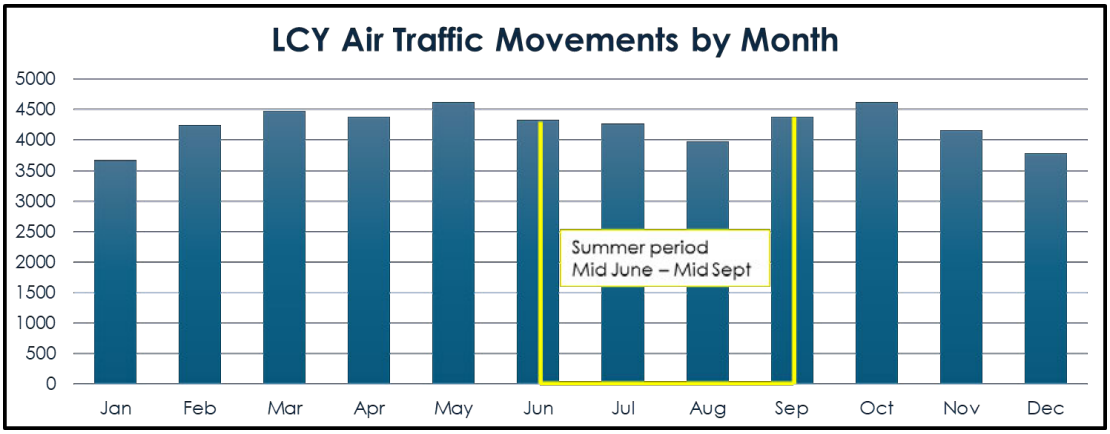

Figure 5: Airport Operational Database data - LCY air traffic movements in 2024, by month. Total annual movements 50,948, with 12,512 movements over the summer period, highlighted in yellow.

4.4.5 On average, LCY had 136 daily movements over the summer; 68 arrivals and 68 departures.

4.4.6 In 2024, on the busiest day there were 196 daily movements (101 arrivals and 95 departures).

4.4.7 About 34% of movements were to and from the east (such as northern and central European origins/destinations), about 17% to and from the northwest (for example Ireland and UK domestic origins/destinations), and about 30% to and from the southeast (for example southern European and Mediterranean origins/destinations), as illustrated in Figure 6.

[2] The 2024 data is the most credible and up-to-date data currently available: LCY Airport Operational Database, which provides a centralised information source for all flight-related data.

[3] These are standard dates defined in the environmental requirements technical document CAP1616i, which complements the UK airspace change process CAP1616, Ed 5.

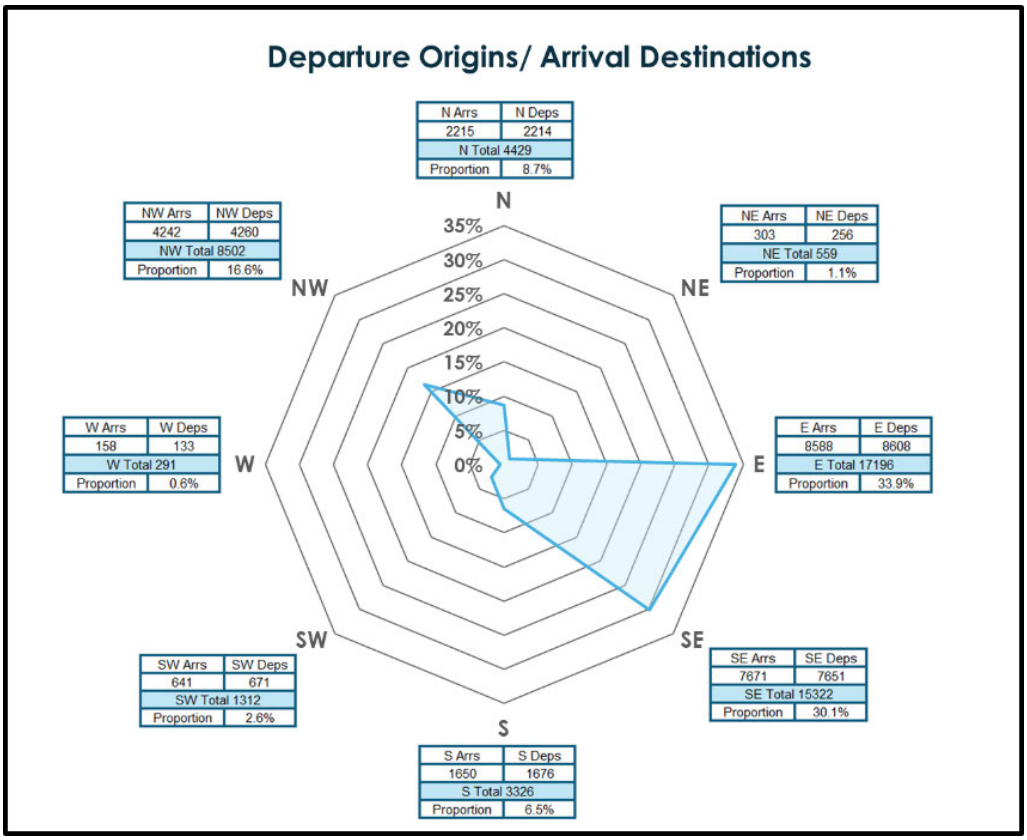

Figure 6: Airport Operational Database data - LCY air traffic movements in 2024. Illustration of departure and arrival origins/destinations (straight line between airports.

4.4.8 The most common aircraft category was the 70-90 seat regional jet (average 73.0% of all flights), and the most common specific type was the Embraer 190.

4.4.9 The heaviest aircraft in 2024 was the Airbus A220-100, which is noise-categorised by the CAA as being a 125-180 seat single aisle twin jet (although at LCY it operates with fewer seats for take-off weight reasons). The A220-100 averaged 10.4% of all flights in 2024.

4.4.10 Other aircraft types using LCY include smaller commercial jets, business jets and propeller aircraft in the 50-70 seat range.

4.4.11 Figure 7 shows the airlines and the proportions of flights which accounted for more than 1% of the total traffic at LCY in 2024.

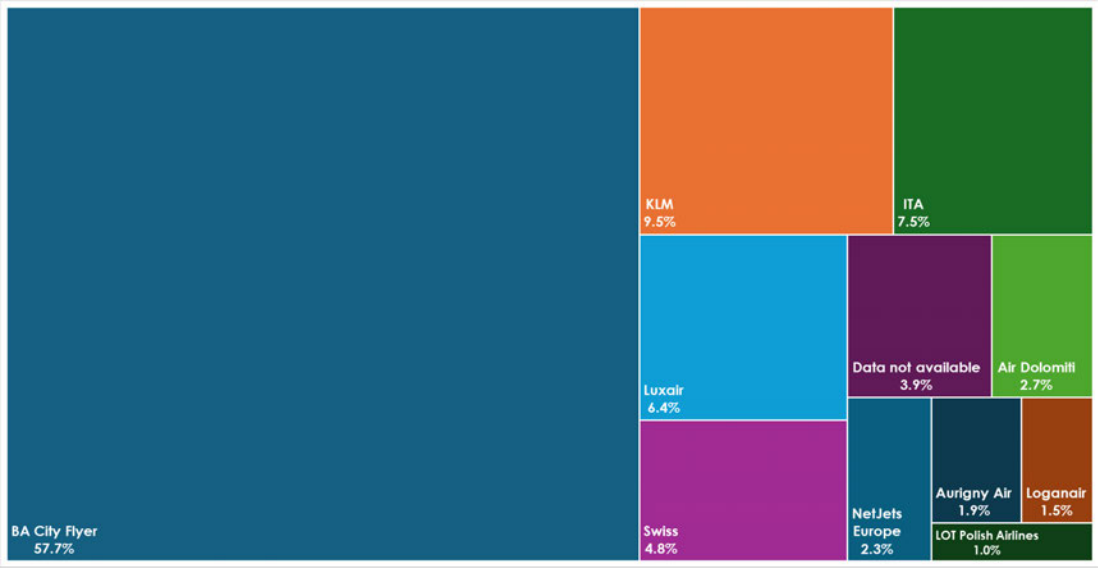

Figure 7: Airport Operational Database data - LCY air traffic movements in 2024. List of operators and proportion of flights which accounted for >1% of LCY traffic.

4.5 Forecast: Current-day scenario

4.5.1 Based on the current-day scenario and the 2024 traffic data, LCY analytics team has forecast the traffic growth and changes to fleet-mix from 2027 (the proposed implementation date, i.e. Year 1) to 2036 (10 years from the proposed implementation date, i.e. Year 10), see Table 1.

Year	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Commercial flights										
Airbus A220	6,700	7,200	7,800	8,300	9,100	9,800	10,700	11,500	12,500	14,600
ATR 72	1,900	2,000	2,000	2,100	2,200	2,200	2,300	2,300	2,400	2,400
ATR42 /ATR72	0	0	0	0	0	0	0	0	0	0
Dash 8	4,100	4,400	4,800	0	0	0	0	0	0	0
Embraer 190	38,100	38,000	37,900	37,500	37,900	31,300	23,100	13,200	6,600	0
Embraer 190 E2	1,200	1,300	1,400	1,500	1,600	1,700	1,900	2,000	2,200	2,600
Embraer E195 E2	1,000	2,100	3,200	7,100	8,700	16,100	24,800	34,900	42,300	54,900
Total no. of commercial flights	53,000	54,900	57,100	56,500	59,400	61,100	62,700	64,000	66,100	74,500
Private Operator flights										
Jet Centre	3,154	3,154	3,154	3,154	3,154	3,154	3,154	3,154	3,154	3,154
Total no. of private operator flights	3,154	3,154	3,154	3,154	3,154	3,154	3,154	3,154	3,154	3,154
Air Traffic Movements										
Total no. of air traffic movements (commercial + private operator flights)	56,154	58,054	60,254	59,654	62,554	64,254	65,854	67,154	69,254	77,654
Passenger numbers (millions)										
Total no. of passengers	4.1	4.2	4.4	4.6	4.8	5.1	5.4	5.7	6.0	6.9

Table 1: Current-day scenario, forecast growth of traffic at LCY including changes to fleet-mix: 2027 (implementation year) to 2036 (10 years post implementation).

4.5.2 The passenger demand at LCY is expected to increase to nearly 7 million passengers annually, accommodated by around 78,000 air traffic movements, including 3,000 business flights[4]. This long term forecast is likely to be realised by the mid to late 2030s.

4.6 Overflight and operational diagrams

4.6.1 Figure 8 is a flight density plot showing the flight patterns and typical altitudes for arrivals to Runway 27 and Runway 09.

4.6.2 Figure 9 illustrates the overflight region for arrivals to Runway 27 and Runway 09, including visual reporting points (geographical features) close to the approach path. Using the CAA overflight definition [Ref 6], the altitudes associated with the arrival transitions are used to calculate a lateral distance from the route centreline for overflight, see Table 2.

Fix name	Altitude	Distance from route centreline[5]
(before RAVSA)	7,000ft	1.9km
RAVSA	6,000ft	1.6km
GAPGI	6,000ft	1.6km
ATPEV	6,000ft	1.6km
LCE07	4,000ft	1.1km
LAVNO	3,000ft	0.8km
OSVEV	3,000ft	0.8km
LCS01	3,000ft	0.8km
LCS02	2,000ft	0.5km
TODBI	2,000ft	0.5km
ODLEG	2,000ft	0.5km

Table 2: Overflight region calculation for LCY arrival transitions

[4] Private operator flights are maintained at 2024 levels in the 10-year forecast, as these flights represent a small percentage of LCY traffic (<5%) and any variation across the forecast period is not anticipated to be notable.

[5] Calculation assumes the more conservative 48.5° elevation threshold, CAP1498 Definition of Overflight, Figure 11.

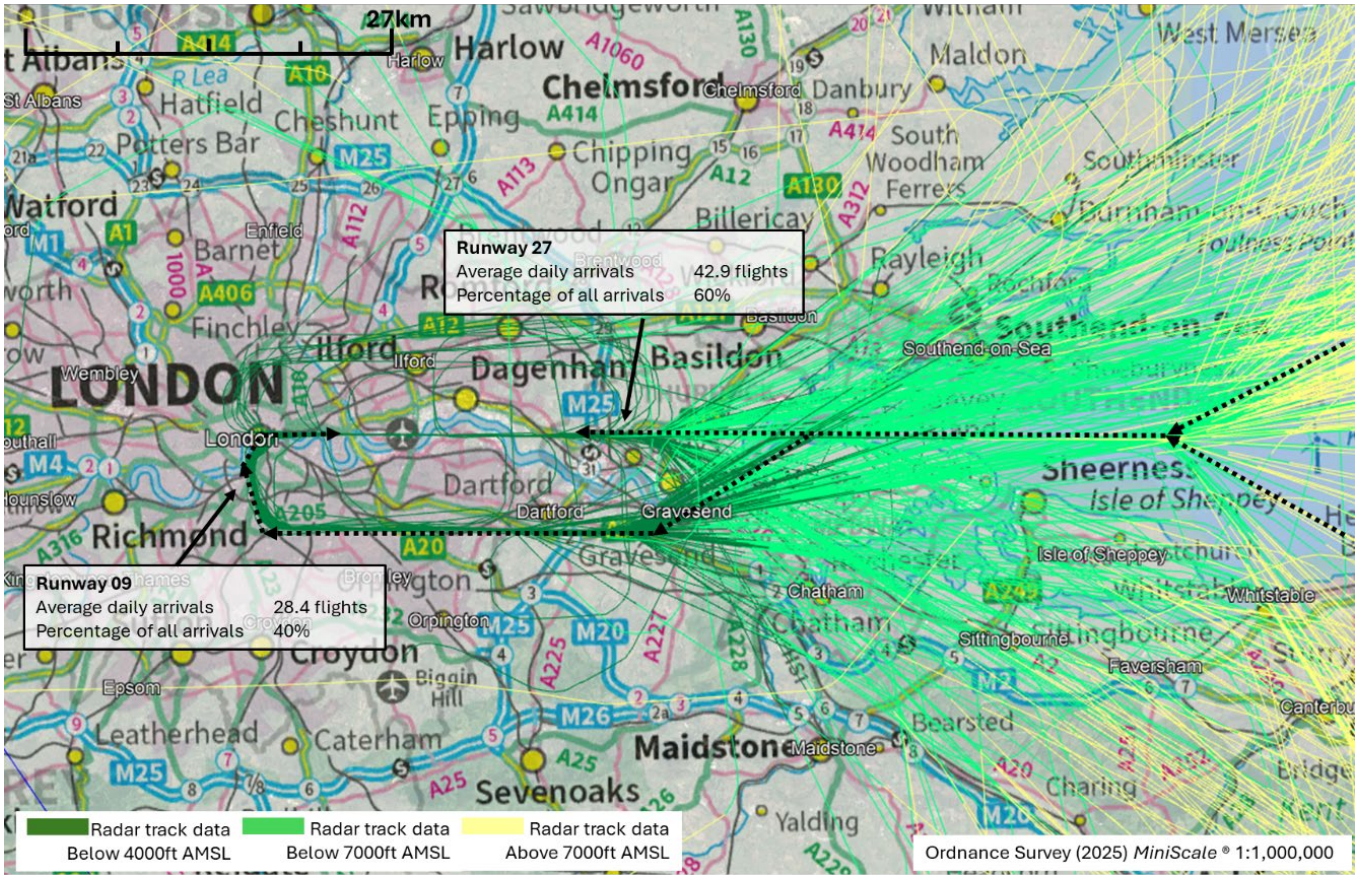

Figure 8: Radar track data. Runway 27 and Runway 09 flight density, arrival flights below 7,000ft. 7 days in Sept 2024, (02nd-08th Sept, 500 flights)

Figure 9: Runway 27 and Runway 09 illustration of overflight region, including visual reporting points (geographical features) close to the approach path. Arrival flights below 7,000ft. [Google Maps, 2025].

4.7 Local features below 7,000 feet

4.7.1 Figure 10 illustrates the approximate geographical region for current-day LCY air traffic movements below 7,000ft and below 3,000ft.

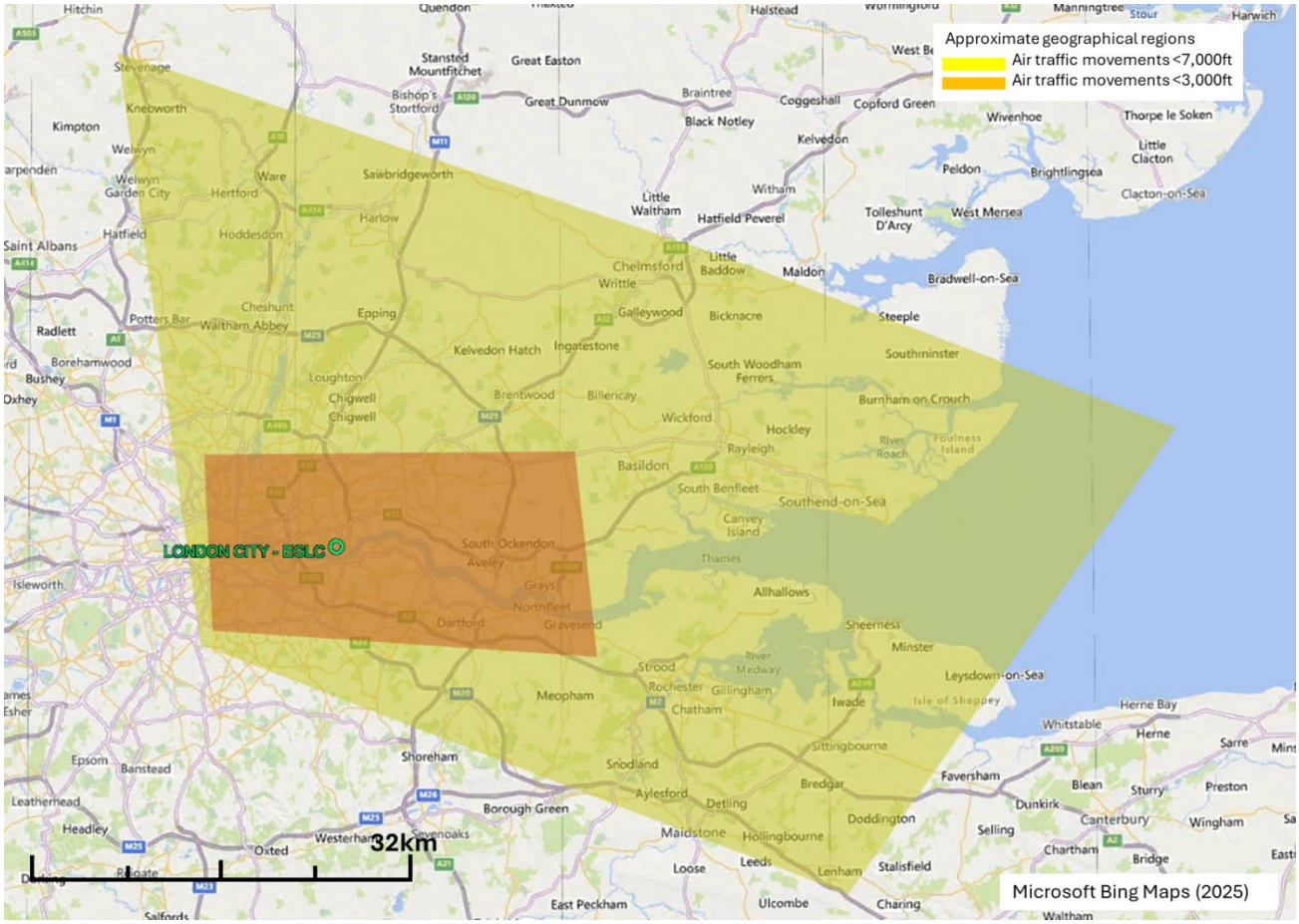

Figure 10: Illustration of the approximate geographical region for LCY air traffic movements. Based on radar track data, arrival and departure flights, 7 days in Sept 2024, (02nd-08th Sept, 989 flights). [Microsoft Bing Maps, 2025].

4.7.2 Central London has numerous Air Quality Management Areas (AQMAs), and the majority of the London boroughs have declared AQMAs (as the whole borough) due to the levels of air pollution in the city.

4.7.3 The following National Parks and Areas of Outstanding Natural Beauty (AONB)[6] are proximate to LCY: Kent Downs AONB, Surrey Hills AONB and Chilterns AONB.

4.7.4 There are no designated Quiet Areas currently impacted by noise from London City airport.

4.8 European sites overflown below 3,000 feet

4.8.1 The approximate geographical region[7] for this airspace change proposal is illustrated approximately in Figure 11 below, alongside the closest European sites.

[6] Note: Local features below 7,000ft include "National Scenic Areas", however this landscape designation is specific to Scotland only and therefore not applicable to this ACP.

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Source: https://magic.defra.gov.uk

Figure 11: Illustration of the approximate geographical region[7] for this airspace change proposal and the relative position of European sites.

4.8.2 'European sites' encompasses Special Areas of Conservation (SAC), possible SACs, Special Protection Areas (SPA), potential SPAs, Ramsar sites (wetlands of international importance), proposed Ramsar sites; and compensatory habitats (areas secured to compensate for damage to SACs, SPAs and Ramsar sites).

4.8.3 LCY is located in London's Royal Docks which support an unusual mix of both sea and freshwater fish species. Although it is not a Special Area of Conservation, the Royal Docks have been designated as a Site of Importance for Nature Conservation (SINC). In 2017, LCY installed an artificial fish habitat (submerged wire mesh panel to support shelter and food for marine wildlife) into the King George V Dock to compensate for the loss of sections of the dock wall during the City Airport Development Programme (CADP) construction programme, (for more information on CADP see Appendix A).

4.8.4 No European sites[8] are currently overflown below 3,000ft, and no European sites have been identified in the proposed airspace change region.

[7] The approximate geographical region captures the characteristics of the change proposal and, at this stage, represents the area associated with proposed changes to the notified airspace design only. At this early stage of the process, the potential impacts of the airspace change proposal are understood at an approximate level only. In Stage 2 (Develop & Assess) we will identify and develop viable design options, and the proposed flight paths will be used to identify impacts more accurately, allowing this geographical region to be updated accordingly.

[8] There is currently no publicly available database which provides information on areas of compensatory habitat (areas secured to compensate for damage to SACs, SPAs and Ramsar sites) and this data is, at present, on request from the local Boroughs. In the current-day scenario, we are not aware of any compensatory habitats associated with European sites currently overflown below 3,000ft, however, should it transpire that an option will impact these sites, then the relevant stakeholders will be informed and engaged with.

4.9 Environmental impacts

Noise

4.9.1 A number of schemes are in place to manage and monitor aircraft noise at LCY, and these are described in more detail in Section 4.10 and Appendix A.

4.9.2 The London City Airport Annual Performance Report 2023[9] Annex 2, Appendix 5 [Ref 7] includes the published Annual Noise contours, illustrated in the 2023 'Full Use' contours in Figure 13. In 2023, the 57dB LAeq16h contour area was 5.9km^2, and in 2024 it was forecast to be 5.8km^2. Both of these contour areas comply with the 9.1km^2 57dB contour area limit contained within the airport's planning permissions.

4.9.3 This airspace change proposal seeks to improve access to a wider range of 'quieter' modern aircraft, and it is anticipated that the change will provide the opportunity to reduce the noise contour further than that expected with the current refleeting levels (without the change), and thus also reduce the relative number of people that would otherwise fall within the contour.

4.9.4 In accordance with the CAP1616, further assessments for noise will be conducted as part of the development of design options and the options appraisals in Stage 2.

Local Air Quality

4.9.5 LCY operates a comprehensive air quality monitoring network, and monitoring data from its Annual Performance Report 2023 [Ref 8] shows that all concentrations are consistently below the UK air quality objectives for all pollutants monitored over the past five years.

4.9.6 This airspace change proposal affects the final arrival stage of flight and the potential fleet mix operating at LCY. As such, air quality is a relevant consideration regarding emissions from new generation aircraft taking off, landing, and while they are on the ground. By improving access to a wider range of 'cleaner' modern aircraft, it is anticipated that the impact on local air quality will be improved from today.

4.9.7 Figure 12 shows the approximate geographical region[10] for this airspace change with respect to the City of London and surrounding London boroughs. Due to the effects of mixing and dispersion, emissions from aircraft above 1,000 feet above aerodrome level (AAL) are unlikely to have a significant impact on local air quality[11]. As such, it is considered that those regions which are most likely to be impacted include: Westminster, City of London, Tower Hamlets, Newham, Havering, Bexley, Greenwich, Lewisham, Southwark, Lambeth, and Wandsworth.

[9] Annual Performance Reports are published at the end of June each year. At the time of writing, the London City Airport Annual Performance Report 2023 in the latest annual report available.

[10] The approximate geographical region captures the characteristics of the change proposal and, at this stage, represents the area associated with proposed changes to the notified airspace design only. At this early stage of the process, the potential impacts of the airspace change proposal are understood at an approximate level only. In Stage 2 (Develop & Assess) we will identify and develop viable design options, and the proposed flight paths will be used to identify impacts more accurately, allowing this geographical region to be updated accordingly.

[11] As described in the CAA's CAP1616i.

Figure 12: Illustration of the approximate geographical region[10] for this airspace change proposal and the relative position of London Boroughs and Districts, LondonMap360° 2025, Source: https://londonmap360.com/london-boroughs-map

4.9.8 Those boroughs most likely to be impacted by the proposed change have been included in the Stage 1 stakeholder engagement, in addition to the Greater London Authority (which serves all 32 of the London Boroughs and the City of London).

4.9.9 In accordance with the CAP1616, further assessments of air quality will be conducted as part of the development of design options and the options appraisals in Stage 2. Should it transpire that an option will impact a borough or district with regard to impacts on local air quality, then the relevant stakeholders will be informed and engaged with.

Greenhouse Gas Emissions

4.9.10 The London City Airport Sustainability Report 2023 [Ref 9] presents a 38% reduction in carbon emissions for aircraft in the Landing and Take-Off cycle (LTO), with 31,970 tCO_2e reported in 2023, compared to 51,887 tCO_2e in the 2018 baseline. Primarily, this is due to fewer air traffic movements compared to pre-COVID levels, in addition to the re-fleeting of some LCY carriers (including Swiss and ITA) to 'cleaner', new generation aircraft.

4.9.11 This airspace change proposal seeks to improve access to a wider range of 'cleaner' modern aircraft, and it is anticipated that, even with a shallower approach, the impact on greenhouse gas emissions will be improved from today.

4.9.12 In accordance with the CAP1616, further assessments of greenhouse gas emissions will be conducted as part of the development of design options and the options appraisals in Stage 2.

Tranquillity

4.9.13 CAP1616i [Ref 10] states that, where practicable, it is desirable that airspace changes below 7,000ft should seek to avoid flying over AONBs, National Parks and local 'tranquil' areas, and that airspace change proposal sponsors should consider these areas regarding impacts on tranquillity.

4.9.14 Kent Downs AONB, Surrey Hills AONB and Chilterns AONB are proximate to current LCY flight paths; however no changes to extant flight paths are proposed through this ACP and there are no additional National Parks or AONBs in the proposed airspace change region, therefore this airspace change proposal is not anticipated to impact tranquillity.

4.9.15 During our Stage 1 engagement, stakeholders have not identified any local 'tranquil' areas of concern.

4.9.16 In accordance with the CAP1616, further assessments of tranquillity will be conducted as part of the development of design options and the options appraisals in Stage 2. Should it transpire that an option will impact an AONB/National Park, or other 'tranquil' area identified through community engagement, then the relevant stakeholders will be informed and engaged with.

Biodiversity

4.9.17 CAP1616i [Ref 10] requires the identification of any biodiversity receptors overflown below 7,000ft including locally identified biodiversity receptors and European sites.

4.9.18 Current LCY flights paths below 7,000ft are proximate to the Lee Valley (SPA), Lee Valley (Ramsar), and Epping Forest (SAC) European sites. The artificial fish habitat in King George V Dock has been identified as being a compensatory habitat for the London Royal Docks, which is designated as a SINC. However, no changes to extant flight paths are proposed through this ACP, no European sites[12] are identified within the proposed airspace change region, and there are no proposed infrastructure changes. As such, this airspace change proposal is not anticipated to impact biodiversity.

4.9.19 During our Stage 1 engagement, stakeholders have not identified particular biodiversity concerns in any specific region, but have raised the importance of assessing risks to biodiversity for sensitive ecological areas, particularly those designated as Sites of Importance for Nature Conservation (SINCs) or containing protected species.

4.9.20 In accordance with the CAP1616, further assessments of biodiversity will be conducted as part of the development of design options and the options appraisals in Stage 2, including a habitats regulations assessment screening exercise as required. Should it transpire that an option will impact any areas of biodiversity concern, including Sites of Importance to Nature Conservation, then the relevant stakeholders will be informed and engaged with.

4.10 Local context

4.10.1 Comprehensive measures have been agreed to manage the social, economic, and environmental impact of LCY operations. These have been developed over the last few decades through engagement and consultation with Local Authorities, the London City Airport Consultative Committee, local communities, airlines, and other stakeholders and business partners.

4.10.2 An overview of the planning conditions and legal obligations for the airport can be found in Appendix A; the following list highlights the key measures considered relevant to this airspace change proposal.

[12] There is currently no publicly available database which provides information on areas of compensatory habitat (areas secured to compensate for damage to SACs, SPAs and Ramsar sites) and this data is, at present, on request from the local Boroughs. We are not aware of any compensatory habitats associated with European sites within the proposed airspace change region, however, should it transpire that an option will impact these sites, then the relevant stakeholders will be informed and engaged with.

Avoidance measures. These are measures which avoid creating impacts from the outset e.g.

- noise certification processes and approvals for each aircraft which would operate at the airport.

Minimisation measures. These are measures which reduce the duration, intensity, and/or extent of impacts e.g.

- the Aircraft Noise Categorisation Scheme (ANCS) and the Noise Management and Mitigation Strategy (NOMMS) which include incentivisation schemes for the use of quieter aircraft at the airport by imposing limits and financial penalties;
- limitation of air traffic movements including maximum movements per hour and maximum movements per year;
- time-related measures including curfews and operational hours;
- Noise Barrier Phasing to protect residents from aircraft stand noise;
- the Ground Engine Running Strategy which limits engine ground running noise; and
- the Airport Surface Access Strategy and Travel Plan to increase sustainable transportation to/from the Airport.

Offsetting measures, to compensate for any residual significant adverse impacts e.g.

- compensation/ repair to property damaged by wake vortex from aircraft using the airport;
- the Sound Insultation Scheme (SIS) through which the airport subsidises noise insulation for dwellings and public buildings in the most affected areas;
- Neighbouring Authority Agreements which ensures that the London Boroughs of Tower Hamlets and Greenwich have oversight over the SIS; and
- the Noise Incentives and Penalties scheme which encourages airlines to operate aircraft more quietly by rewarding them with credits and paying penalties into a Community Fund.

Enhancement measures to create new benefits e.g.

- Employment and training to assist people gaining entry into work associated with the airport and the development.

5. Current constraints, inefficiencies and opportunities

5.1.1 This section describes relevant air traffic control and geographical considerations and constraints for the current-day scenario (and thus the baseline 'do-nothing' option). It complements the design principles (see section 6.1) and provides additional context.

5.2 Runway approach angle

5.2.1 The approach descent angle (also known as the glideslope) is a vertical path that directs arrival aircraft to the touchdown zone of the runway. The glideslope for LCY is part of the Instrument Landing System (ILS) and is set at 5.5° which is much steeper than most airports and is needed to ensure adequate safety margins for aircraft on the ILS approach against the surrounding buildings. (In aviation this is known as 'obstacle clearance').

5.2.2 This steep 5.5° glideslope is the same for both Runway 09 and Runway 27, although it is Runway 09 which has the more stringent obstacle clearance requirements, see section 5.3.

5.2.3 Once aircraft are established on the 5.5° glideslope, they descend at a rate of approximately 316ft/km (9.6% gradient[13]). For comparison, the industry standard glideslope is 3° which provides a descent rate of approximately 173ft/km (5.2% gradient).

5.2.4 Today's steep approaches require special aircraft requirements and flight crew certification.

5.2.5 The 5.5° approach angle is also included in LCY's 'Quiet Operating Procedures', with the steep approach angle keeping aircraft higher for longer, thereby reducing the current noise impact on local communities. Future final approaches must therefore ensure, not only obstacle clearance, but also that the airport's noise level limits can still be adhered to.

5.2.6 In addition, the management of noise levels at LCY uses a noise quota count (QC) system. Each aircraft in operation is allocated a separate QC score for arrival and departure operations, based on its certified noise levels, and this is also adjusted to reflect the 5.5° approach angle used at LCY. Any changes to the angle of approach will need to be incorporated into the QC scheme to reflect the noise certification value for aircraft on a shallower approach procedure.

5.3 Potential safety risks

5.3.1 LCY's Public Safety Zones (PSZs) are areas around the runway where development is restricted to minimize the number of people potentially at risk from an aircraft accident. The Public Safety Controlled Zone (PSCZ) is the outer boundary of the PSZ (shown as black outline triangles in Figure 13), and the Public Safety Restricted Zone (PSRZ) is an inner, higher-risk zone, within the PSZ (shown in orange in Figure 13). There are two factors that affect PSZ size:

1) the risk of incident associated with aircraft: as aircraft become safer, the size of a PSZ reduces as the risk of incidents decreases and;
2) the volume of aircraft: the size of a PSZ increases with increased traffic levels as the likelihood of an incident increases

This airspace change proposal is not anticipated to directly impact the size of LCY's PSZs; however the ability to support more modern aircraft, with increased aircraft safety, could reduce future growth of the PSZ boundary size with predicted increases in future traffic.

5.3.2 LCY carries out safeguarding to ensure that any developments or activities within the airport's vicinity do not adversely affect the safe and efficient movement of aircraft. The safeguarding zones are illustrated in Figure 13, and require the airport to be consulted on planning applications and any other activities in these areas which may affect the safe operation of aircraft.

5.3.3 During our Stage 1 engagement, stakeholders have identified concerns with potential increases in the size of the safeguarding zones. However, RNP AR aircraft can fly precisely defined paths (curved or straight) and make turns at low altitudes, even in areas with challenging terrain or airspace restrictions. The lateral and vertical deviations are tightly controlled, usually within ±0.3 nautical miles or less and can be as low as ±0.1 nautical miles. Due to this level of accuracy, the obstacle assessment area is much smaller when compared to an ILS protection area and, as such, this airspace change proposal is not anticipated to significantly impact the LCY aerodrome safeguarding zones.

[13] A glideslope is the vertical path an aircraft follows during the final approach to a runway. The descent gradient determines the rate of descent the aircraft needs to maintain, and is calculated as Tan(glideslope angle) x 100. For a 9.6% gradient, this means that for every 1,000ft of horizontal distance travelled, the aircraft descends 96ft.

5.3.4 In accordance with the CAP1616, further assessments of safety will be conducted as part of the development of design options and the options appraisals in Stage 2, including any impacts on the PSZs and the safeguarding zones, see D_DP06. Should it transpire that an option will impact the size of these protected areas, then the relevant stakeholders will be informed and engaged with.

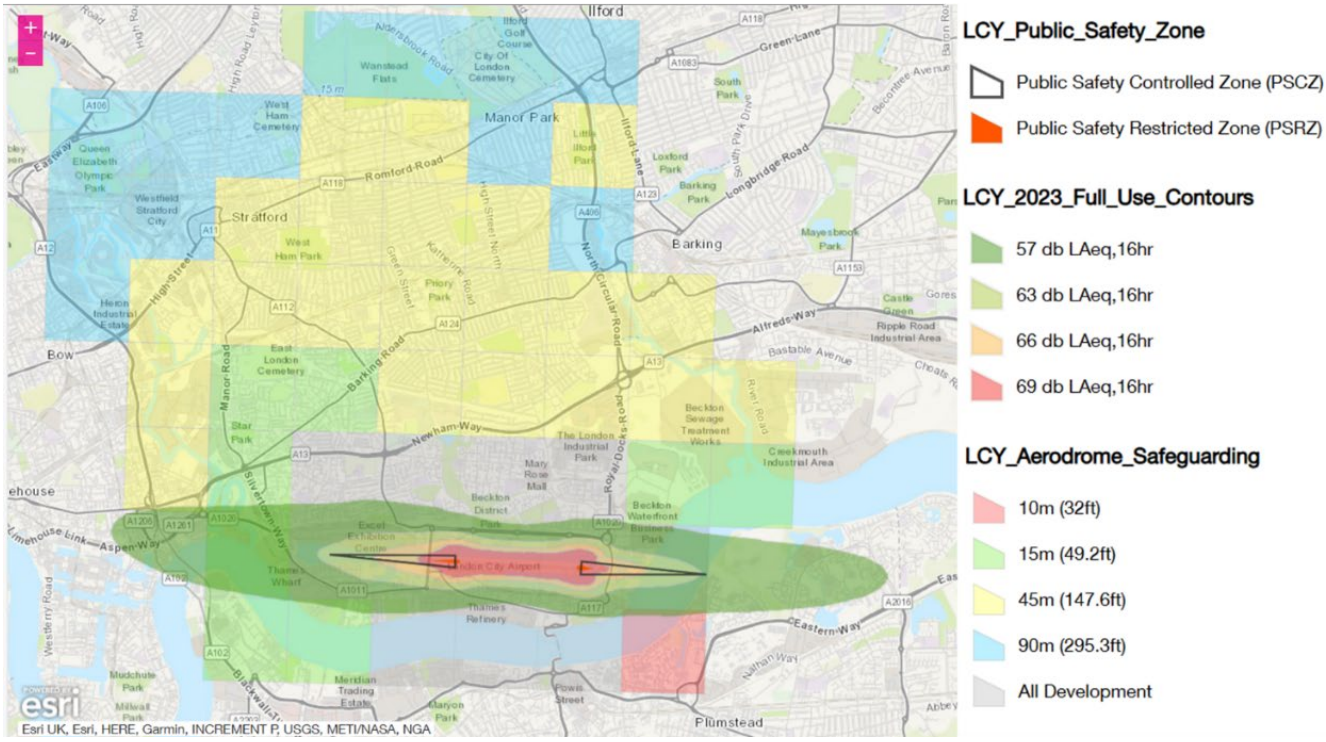


Figure 13: LCY constraints map illustrating the public safety zones, 2023 'full use' contours, and safeguarding. Source: https://lbnewham.maps.arcgis.com/apps/webappviewer/index.html?id=0dfb729dd32a4979aee36d17cdb3b2aa

5.4 Densely populated areas

5.4.1 LCY is situated in central London which is a densely populated urban area. There are relatively unpopulated areas such as the River Thames itself, the valley of the River Lea (also known as the Lee Valley), parks, marshes and industrial areas, but these are all adjacent to (and interspersed between) commercial buildings, roads, railways, bridges and residential areas.

5.4.2 There is limited scope to develop arrival flightpaths that avoid the populated areas, especially at the lowest altitudes close to the airport.

5.4.3 LCY's relative geography to Heathrow's runways constrains its traffic flows; currently, all LCY arrivals to Runway 09 must stay at least 1,000ft beneath Heathrow's flights. This results in flights at 3,000ft and 2,000ft over the same areas whenever Runway 09 is in use.

5.5 Operational efficiency

5.5.1 At lower altitudes, the current arrival flight paths to both runways are largely efficient.

5.5.2 The Runway 27 arrival track is designed to fly primarily over the Thames Estuary providing a long, straight, final approach from the vicinity of the Point-Merge airspace structure to the runway, see Figure 2. Currently, the flight path is as direct as possible, and enables arrivals to stay over the sea for longer, reducing the number of people overflown.

5.5.3 The Runway 09 arrival track progresses in the same manner for the first segment of the approach, before diverging southwest to track 3-4 miles south of the River

Thames for the downwind portion of flight, followed by ATC vectors onto a northeasterly track for Runway 09, see Figure 3.

5.5.4 Typically, the space between successive LCY arrivals is set so that, when the first arrival lands, there is enough space before the second arrival for a departure to enter the runway and prepare for take-off. Currently this arrival spacing is about 7 nautical miles (13km). As soon as the first arrival has landed (and safely vacated the runway onto the taxiway), the departure can be cleared for take-off, in the gap before the next approaching aircraft is close to landing. The more efficient the departures, the smaller the gap between can be, between successive arrivals, maximising runway throughput.

6. Airspace Design Principles and Priorities

6.1 Executive Summary – List of Design Principles (DPs)

6.1.1 The following list, see Table 3, summarises the final design principles from the engagement process. Feedback received during this process has influenced the evolution of these principles and also supported the development of the priority rating.

6.1.2 DPs are numbered as follows: 'M_DPXX' identifies mandatory DPs which have been defined by the CAA, and the wording and priority of these DPs cannot be changed; 'D_DPXX' identifies discretionary principles which have been defined by the CAA, and the wording and priority of these DPs can be amended; 'B_DPXX' identifies bespoke DPs which have been created specifically to suit the context of this airspace change proposal, and the wording and priority of these DPs can also be amended.

6.1.3 Each DP is assigned a relative priority (High, Medium, or Low). These priorities will be considered when the DPs are used to evaluate/ rank design options as part of CAP1616's Stage 2 Develop & Assess.

6.1.4 The following eleven DPs, see Table 3, came out of the collaboration between LCY and its stakeholders. How the DPs have evolved is described in detail in section 7.

Table 3: Final design principles resulting from the engagement process. Green depicts a final design principle/priority that is unchanged from the draft proposal, and orange depicts a final design principle/priority that has been changed as a result of stakeholder feedback.

Design Principles	Category	Description	Priority	Notes
M_DP01	Safety	The airspace change proposal must maintain a high standard of safety and should seek to enhance current levels of safety.	High	The CAA have stated that this DP is required by all change sponsors.
M_DP02	Policy	The airspace change proposal should not be inconsistent with relevant legislation, the CAA's airspace modernisation strategy or Secretary of State and CAA's policy and guidance.	High	The CAA have stated that this DP is required by all change sponsors. The CAA's published Airspace Modernisation Strategy (CAP1711) describes what airspace modernisation must deliver including: • the need to increase aviation capacity • growth to be sustainable • the need to maximise the utilisation of existing runway capacity.

M_DP03	Environment	The airspace change proposal should deliver the Government's key environmental objectives with respect to air navigation as set out in the Government's Air Navigation Guidance 2017.	High	The CAA have stated that this DP is required by all change sponsors. The Government's Air Navigation Guidance 2017 provides guidance on airspace and noise management including: • limiting and, where possible, reducing the number of people in the UK significantly affected by adverse impacts from aircraft noise • ensuring that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions • minimising local air quality emissions and ensuring that the UK complies with its international obligations on air quality.
B_DP04	Local context and circumstances	The airspace change should not inhibit the ability for the airport to meet its conditional and legal obligations contained within the City Airport Development Programme ('CADP') planning permission and the associated section 106 agreement.	High	The CADP permission (including its subsequent amendments) provides the airport with the consent to develop the physical infrastructure required to handle 9million passengers per annum and 111,000 air traffic movements. The permission is conditional upon a range of other operational and environment controls including, but not limited to, the number of aircraft stands, the number of aircraft movements per hours, the times in which aircraft can land and depart, noise management, air quality monitoring, and surface access, amongst others.
D_DP05	Performance based navigation	The airspace change proposal should enable efficiency benefits by using an appropriate and, where possible, optimised standard of performance-based navigation.	High	The intent of this design principle is the provision of a design that supports the introduction of RNP AR approaches, addressing the environmental challenges at London City Airport, whilst effectively managing standard arrival operations on precision ILS (instrument landing system) approaches.
D_DP06	Local context and circumstances	The airspace change proposal must be informed by local context and circumstances; minimising impacts on the wide variety of communities close to the airport such as exposed dwellings, noise sensitive buildings, natural environment, local population, local businesses and land development.	High	The intent of this design principle is to consider where local impacts may be greatest.
D_DP07	Noise	The airspace change proposal should limit and, where possible, reduce the total adverse effects from aircraft noise.	High	By seeking to introduce quieter aircraft and minimise changes to existing tracks over the ground. Modern aircraft are quieter and therefore can be lower with less noise impact.
B_DP08	Economics	The airspace change proposal should enable more cost-effective operations for airline operators at London City Airport.	Medium	

D_DP09	Noise	Where options for route design for the airspace change proposal are similar in terms of the number of people affected by total adverse noise effects, preference should be given to that option which is most consistent with existing published airspace arrangements.	Medium	By seeking to minimise changes to existing tracks over the ground
B_DP10	Environment	The airspace change proposal should facilitate the use of additional new generation, environmentally efficient aircraft at London City Airport.	Medium	By removing the current steep approach certifications associated with operating on a 5.5° glideslope.
D_DP11	Other aviation stakeholders	The airspace change proposal should consider the impacts on air navigation service providers and other aviation stakeholders such as nearby airport operators.	Low	The intent of this design principle is to ensure that wider impacts on the aviation community are included for consideration; however, a change to airport procedures such as this, which is so close to the final approach, is not anticipated to have ramifications on other airport operators etc. and therefore is considered a low priority.

7. Engagement

7.1 Creation of Draft Design Principles

7.1.1 Operational subject matter experts (SMEs) worked alongside LCY's Airport Planning team to create a set of draft DPs for this airspace change. Firstly, draft DPs were identified from the CAP1616f [Ref 17] list of Mandatory DPs for Safety, Policy and Environment, and subsequently the most relevant DPs for this airspace change proposal were selected from the list of Discretionary DPs, (with some minor modifications made to simplify the wording for these). Finally, Bespoke DPs were created for those aspects of the change considered to be the most important for LCY stakeholders: 'Local context and circumstances' (B_DP04), 'Economics' (B_DP08) and 'Environment' (B_DP10). Priority levels were then assigned to all DPs by considering which criteria should be prioritised over others: Mandatory DPs - these were considered a 'High' priority as they represent the key objectives for Safety, Policy and Environment that a change sponsor should aim for in developing an airspace change; Discretionary and Bespoke DPs – those that *must* be achieved by the design were assigned a 'High' priority, those that *should* be achieved by the design were assigned a 'Medium' priority, and those that were likely to be minimally impacted by the design were assigned a 'Low' priority. Finally, all design principles were checked for alignment with the strategic objectives of the CAA's Airspace Modernisation Strategy (AMS) CAP1711 [Ref 15]. For more information, see Appendix C: Airspace Modernisation Strategy Alignment.

7.2 Engagement Response

7.2.1 During the engagement period, the draft DPs were presented to all key stakeholders, and then a DP questionnaire was circulated in which stakeholders were asked to provide feedback on the wording of the DPs, and whether they agreed with the priority of the DPs. An overview of the original DP wording, the stakeholder responses, LCY responses and the evolution of the DPs is provided in Table 4 below. Where stakeholders did not complete the DP questionnaire, but

instead provided responses relating to the DPs during the online workshops, or via email, the content was reviewed and incorporated into the analysis as appropriate.

7.2.2 One respondent, left no details of their name or organisation and provided no feedback for any of the DPs, but answered 'no' against each "do you agree with this priority?" question. Without any contact details we have been unable to follow-up and seek clarification with this respondent, but assume an objection is being made against the airport and/or the airspace change, rather than feedback for individual DPs. As such, we have viewed the entry as void and the responses are considered no further.

Table 4: DP feedback and evolution.

General Feedback
One respondent (non-aviation stakeholder) commented that additional information was required to "*understand what variations are being made in layman's terms so local residents can understand what the effects will be on the flight path and angles to noise etc.*" LCY recognises the importance of considering where local impacts may be greatest. At this early stage of the airspace change process the flights paths have not yet been designed, however we will continue to engage with key stakeholders during Stage 2 (Develop & Assess) of the CAP1616 process, where further detail of changes to aircraft tracks will be defined. Descriptions of the proposals will use non-technical language, including explanations of the technical elements and the use of maps/diagrams to ensure the information is accessible and understood by all stakeholders. We welcome any feedback on the design options at this stage. (Forest Hill Society) "*Beyond our response defined for each of the numerated Design Principles below, we feel there are key issues material to the conduct and procedures of the ACP. We would contend that whilst the scope of the intent of the ACP is clear, there are two specific issues that need to be addressed and potentially redefined. Firstly, LCY assert, "The physical change is a small alteration to the final kilometres of approach. It is not a wholesale airspace change.". FHSoc believe that this definition is too narrow and is at risk of ignoring significant consequences to the environment to a much larger geographic area. The ACP is not a "small alteration" and along with the reasons defined above about the uniqueness of the Air Space over Lewisham and the 2000 feet 20km long flight path, we respectfully suggest the cure for this deficiency is to expand the area of focus included within the scope of the ACP to add and embrace all flight paths for LCY under 5000 feet. This with the specific intent of ensuring that field measurement of noise data across the revised area is collated, analysed and incorporated to ensure decision makers have a clear view of the environmental performance of the A320neo in noise terms. The area defined in the map displayed as the "Potentially affected area" is substantially undersized and will require to be expanded to cover the affected area as described here.*" LCY thank you for your feedback. The potentially affected area is an approximate geographical region capturing the characteristics of the change proposal and, at this stage, represents the area associated with proposed changes to the notified airspace design only. At this early stage of the process, the potential impacts of the airspace change proposal are understood at an approximate level only. In Stage 2 (Develop & Assess) we will identify and develop viable design options, and the proposed flight paths will be used to identify impacts more accurately, allowing this geographical region to be updated accordingly. It is worth noting however, that noise assessments are not limited to the volume of airspace depicted by a specific geographical region; any changes in traffic patterns, traffic volumes or fleet mix below 7,000 feet (for all aircraft

movements) are incorporated into the noise modelling and as such all environmental impacts for an airspace change are included in the assessment. More information on the assessment of noise impacts can be found in the CAA's CAP1616i.

(Forest Hill Society) *"Secondly, on its webpage LCY assert, "Initial indications from specification data points to the A320neo being quieter than the current E190, even with the shallower approach." and on the Statement of Need, present on the CAA webpage, the cleaner, quieter mantra appears twice more,"facilitate the operation of cleaner, quieter, new generation aircraft at the airport." and "the opportunity of introducing cleaner, quieter, new generation aircraft at London City Airport (EGLCJ". We would contend that along with an absence of presented data "initial indications from specifications" to support LCY's quieter stance in keeping with where CAA standards advise that sound differences of 2-3dB are not discernible to the human ear, this use of narrative describing the A320neo as quieter is absent from presentations of support data so far and therefore without foundation and it might be adjudged conclusory and premature and should be removed until such evidence is provided by LCY in a full and transparent disclosure."* LCY thank you for your feedback. International Civil Aviation Organisation (ICAO) Annex 16 Vol 1 noise standards are designed to ensure that aircraft noise levels are reduced, particularly in those areas that surround airports, and are organised into chapters, with each chapter representing a stricter noise level. [More information can be found here]. The Embraer E190 (which is the most common current generation aircraft operating at LCY and which makes up an average 73.0% of all flights), falls into the ICAO Chapter 4 noise standard. For comparison, the noise certification requirements for new aircraft types submitted for certification on/after specific dates, including the A320neo, fall into the ICAO Chapter 14 noise standard, which is the latest in the series of progressively stricter noise standards. As such, the information in our Statement of Need, and on the LCY website reflects this understanding that more modern aircraft are 'quieter' and communicates our position; we believe that such a change could be introduced without significant adverse noise impacts. At this early stage of the airspace change process the flights paths have not yet been designed; once we have defined the proposed flight procedures and modelled, robustly, the full extent of any noise impacts, in alignment with the environmental requirements of the CAP1616 process, the data associated with each design option(s) will be provided to support the full public consultation for this airspace change proposal.

(London Borough of Redbridge) *"We would like to raise several key concerns regarding the wider implications of this proposal: 1. Noise Impact. The proposed changes could lead to more concentrated flight paths with new glide slopes. While this may offer operational efficiencies, it risks significantly increasing aircraft noise over specific communities. Concentrated noise corridors can severely affect residents' well-being, mental health, and quality of life, particularly in densely populated or previously unaffected areas. These impacts must be fully assessed and transparently communicated, with mitigation strategies developed where necessary. 2. Air Quality and Emissions. The introduction of new approach procedures may alter flight patterns in ways that affect local air quality, particularly in areas already experiencing high levels of pollution. A full environmental assessment should consider cumulative impacts on air pollution, carbon emissions, and public health, especially in boroughs like Redbridge which is a designated air quality management area. 3. Natural Environment and Biodiversity. Changes to flight paths could affect sensitive ecological areas, particularly those designated as Sites of Importance for Nature Conservation or*

containing protected species. The proposal should incorporate an assessment of risks to biodiversity and ensure compliance. 4. Stakeholder Engagement and Transparency. While we recognise the efforts made so far, continued and meaningful engagement with affected local authorities, community groups, environmental organisations, and residents is critical as the project progresses. We strongly encourage the inclusion of:• In-person engagement events, • Clear visual mapping of current and proposed flight paths,• Opportunities for two-way dialogue at every stage of the process. We look forward to continued dialogue on this important matter and expect that local concerns will be carefully considered as the airspace change proposal progresses through subsequent stages". LCY thank you for you feedback and confirm that the consideration and assessment of potential environmental impacts for this airspace change proposal will take place in accordance with the requirements of the CAP1616. Through the various stages of the airspace change process, the environmental assessment evolves as the design options mature, and includes both qualitative and quantitative assessments on Noise, Greenhouse Gas Emissions, Local Air Quality, Tranquillity and Biodiversity; more information can be found in the CAA's CAP1616i. Descriptions of the proposals, including information on the environmental assessments, will use non-technical language, including explanations of the technical elements and the use of maps/diagrams to ensure the information is accessible and understood by all stakeholders. LCY looks forward to continued stakeholder engagement, with more collaborative and dynamic two-way shared engagement activities planned for Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options.

M_DP01, M_DP02 and M_DP03

M_DP01 The airspace change proposal must maintain a high standard of safety and should seek to enhance current levels of safety. Priority: High

M_DP02 The airspace change proposal should not be inconsistent with relevant legislation, the CAA's airspace modernisation strategy or Secretary of State and CAA's policy and guidance. Priority: High

M_DP03 The airspace change proposal should deliver the Government's key environmental objectives with respect to air navigation as set out in the Government's Air Navigation Guidance 2017. Priority: High

How has feedback influenced these DPs?

These DPs are CAA 'mandatory' DPs. Although the wording and prioritisation of these DPs cannot be changed, stakeholders were asked to provide their feedback so that comments could be considered with respect to the complete set of proposed DPs.

(HACAN East and Forest Hill Society) *"Concerning DP2 Policy, the airspace change proposal should also be consistent with the airport's five year Noise Action Plan (NAP), submitted to and approved by DEFRA. The proposal will remove a key noise mitigation measure relied upon in successive NAP's over many years. The 5.5 degree angle is in place not only for safety reasons, which the airport mentions in its application, but also for noise mitigation, to give some small element of relief from noise to overflown people close to the arrivals flight paths. The change to implement a "non-standard approach angle", as described by the airport, is by any definition a major development that affects the existing noise situation. The angle of approach has been*

in place for 33 years, since 1992, and is established as the expected angle, and a key noise mitigation measure. Accordingly, DEFRA guidance for the Environmental Noise (England) Act 2006 states that the airport must revise its noise action plan, and it should consult widely with Newham, its other stakeholders and the public in the usual way when it does so. This consultation should extend to all homes close to the flightpath shown in the presentation map as a yellow line, which we estimate extends 8.8km in each direction from the runway. Despite the NAP having been completed relatively recently, the airport made no mention of this project in preparation at the time. This too is a requirement for inclusion (" to include any noise measure already in force and any project in preparation"). All the more reason why this major development affecting the noise situation must drive a specific and widely consulted change to the NAP. Guidance for Airport Operators to produce noise action plans under the terms of the Environmental Noise (England) Regulations 2006 (as amended) *HIGH PRIORITY"* LCY understands concerns regarding noise. B_DP04 will ensure that all design options at Stage 2 are evaluated with respect to the current LCY planning permissions which include a number of measures designed to manage and mitigate the noise impact of aircraft operations at LCY. D_DP06 will ensure that all design options at Stage 2 are evaluated with respect to local context and circumstances which includes impacts on local communities close to the flight paths. D_DP07 will ensure that all design options at Stage 2 are evaluated with a view to limiting and, where possible, reducing the total adverse effects from aircraft noise. B_DP04, D_DP06 and D_DP07 all have a 'High' prioritisation level to ensure that LCY extant planning permissions, local context and circumstances, and adverse effects from aircraft noise are key considerations for the design. The main purpose of the NAP is to establish whether the current noise management measures are sufficient to protect the local community adequately, particularly those worst affected. The NAP is subject to review at least every 5 years, or revised as necessary, and any changes affecting the NAP are subject to a formal public consultation exercise, where the extent and nature of the consultation is proportionate to the extent of the noise impact of the airport operations and the actions being proposed, and lies outside of the CAP1616 process.

(HACAN East and Forest Hill Society) *"DP3 Air Navigation Guidance 2017. We should note in particular "the government's environmental priority is to limit and, where possible, reduce the total adverse effects on people". In this proposal, the Statement of Need argues that this change is necessary to introduce the largest aircraft ever permitted at City, the A320neo. It is well known, and City has explained many times, that the BACityFlyer Embraer 190 fleet will, over time be replaced by the Embraer E190 –E2. Several other airlines have been operating new generation aircraft at City airport since around 2019. It is not a reasonable comparison therefore to claim without evidence, as the airport does on its website, that "This is a new generation aircraft cleaner and quieter than current aircraft at LCY." London City Airport Airspace Change Process | London City Airport We believe that several of the aircraft currently permitted, namely the new generation E195, the Airbus 220 and the E190-E2 are in fact quieter than Airbus 320neo. They also fly at 5.5 degrees, keeping the aircraft "higher for longer" as noted in the airport's Noise Action Plan. We believe there is no disputing that the A320neo will provide more noise to the overflown at 4.5 degrees than if it were at 5.5 degrees. Our concern is that the proposal may be in direct contravention of ANG2017 requirements by increasing the total adverse effects by introducing a larger, heavier, noisier aircraft on a lower altitude tracking than any other aircraft using the airport. If the proposal were approved, the airport proposes to encourage airlines to fly ever increasing numbers of these aircraft until it reaches its permitted maximum passenger or air traffic movement limits. Until the airport introduces Continuous*

Descent Operations over all of its arrivals routes (where planes will be able to fly higher over most areas) this will have the direct effect of increasing the total adverse impacts on people, not only in the area 8.8 km to the east and west of the runway, but also on all of its paths over London and particularly in the low, 2000 ft approach path currently operated over densely populated SE London for some 30km. So an unintended consequence of allowing this proposal will almost certainly be to increase total adverse effects across wide areas on London against Government priorities. A far better plan would be to allow, and bed in, the major changes to London airspace currently underway before consideration of this or any other flight path changes. This would allow a post implementation review to check that those changes had met the ANG 2017 requirements. For all of these reasons, the 'Potentially Affected Area' map published by the airport is incorrect and should be extended to incorporate all take-off, arrival and low, level flight operations over Greater London. HIGH PRIORITY." LCY thank you for your feedback. Our statements concerning noise benefits compare with current generation aircraft, not existing new generation aircraft. Each individual new generation aircraft has a different noise profile, however they are all quieter than the current generation aircraft. The most common current generation aircraft operating at LCY is the Embraer E190 which makes up an average 73.0% of all flights. The current 5.5° steep runway approach angle, required to ensure adequate safety margins for aircraft on the ILS approach, is prohibitive to the range of aircraft able to operate at the airport; and this airspace change proposal seeks to introduce RNP AR approach procedures with a shallower approach angle to increase the range of modern aircraft able to operate at LCY. It is worth noting that any reduction of the approach angle must achieve safe obstacle clearance in addition to ensuring the airport's noise level limits can still be adhered to. As such, both the enhanced navigational capability as well as the ability to support reduced noise-output, is a pre-requisite for aircraft on shallower approaches. The potentially affected area is an approximate geographical region capturing the characteristics of the change proposal and, at this stage, represents the area associated with proposed changes to the notified airspace design only. At this early stage of the process, the potential impacts of the airspace change proposal are understood at an approximate level only. In Stage 2 (Develop & Assess) we will identify and develop viable design options, and the proposed flight paths will be used to identify impacts more accurately, allowing this geographical region to be updated accordingly. It is worth noting however, that noise assessments are not limited to the volume of airspace depicted by a specific geographical region; any changes in traffic patterns, traffic volumes or fleet mix below 7,000 feet (for all aircraft movements) are incorporated into the noise modelling and as such all environmental impacts for an airspace change are included in the assessment. More information on the assessment of noise impacts can be found in the CAA's CAP1616i.

(Local resident) *"Surely Mandatory Design Principles D2 should also include LCY's The Noise Action Plan as noise from the airport has the biggest impact on people across London."* M_DP01, M_DP02 and M_DP03 are the CAA's 'mandatory' DPs. These three DPs apply generically to all airspace change proposals and are not specific to the LCY airspace change. We have included B_DP04 which covers the City Airport Development Programme ('CADP') planning permission and the associated section 106 agreement which covers the operational and environment controls that LCY operates under. Included within this is the Noise Management and Mitigation Strategy (NOMMS) which is agreed in consultation with the London Borough of Newham every 5 years and provides a framework of measures and procedures to

monitor and manage the noise impact of LCY departure, arrival and ground-based operations.

No other feedback received. No resultant changes to any DPs.

B_DP04

B_DP04 The airspace change should not inhibit the ability for the airport to meet its conditional and legal obligations contained within the City Airport Development Programme ('CADP') planning permission and the associated section 106 agreement. Priority: High

How has feedback influenced this DP?

Two respondents have provided comments on the wording of this DP:

(Airline operator) "*this DP would not be compromised by opening the new approaches up to other aircraft types provided they can meet the applicable noise limitations*". LCY recognises the value of developing their approach procedures to enable more modern and efficient aircraft to operate at the airport. Our preliminary discussions have considered RNP AR procedures using the A320neo aircraft type. The potential for the procedure to be used by various different aircraft types, will be investigated during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options. It is worth noting however, in addition to the operating constraints at LCY, use of the procedure by specific aircraft types would be subject to flight testing, assurance/validation and compliance with regulatory requirements.

(London Borough of Newham) *"Newham agrees that compliance with London City Airport's planning permission (and amendments) and the associated Section 106 agreement should be given high priority as a design principle. This is important to ensure that the two regulatory regimes, the planning and air space regulation regimes, do not conflict with one another. However, Newham notes that future planning applications that may arise from the airspace modernisation proposal will need to be assessed in the normal way in accordance with planning legislation. The approval of changes via the airspace modernisation process does not automatically mean they will be accepted by Newham through the planning process*". LCY thank you for your feedback and concur that future planning applications are assessed in accordance with planning legislation and lie outside of the CAP1616 process.

Respondents agreed that the 'High' prioritisation level was suitable for this DP

No other feedback received. No resultant changes to this DP.

D_DP05

D_DP05 The airspace change proposal should enable efficiency benefits by using an appropriate and, where possible, optimised standard of performance-based navigation. Priority: High

How has feedback influenced this DP?

Five respondents have provided comments on the wording of this DP:

(Airline operator) "*in order to ensure as broad a spectrum of aircraft / operators as possible (who meet the noise requirements) can make use of the new procedures, it is important to ensure they are designed using an RNP value of no less than 0.3nm on the final approach and 1.0nm on the missed approach as more stringent technical requirements for the aircraft and consequential training apply when approaches are designed with lower values which would preclude most business aviation aircraft from making use of the new procedures despite having a very low noise footprint*". LCY thank you for your feedback and we will take this consideration of RNP equipage forward for further investigation during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options.

(Aviation consultancy) "*This should not be at the expense of consented development or development potential / land value across sites within the vicinity of the airport*" and that "*Efficiency benefits alone only benefit the airlines and the airport. Whilst it is a useful design premise, it is not as fundamental to the first 4 as it does not benefit anyone apart from the airport themselves.*" LCY understands concerns regarding the development potential of sites under the flight path. B_DP04 will ensure that all design options at Stage 2 are evaluated with respect to the current LCY planning permissions. D_DP06 will ensure that all design options at Stage 2 are evaluated with respect to local context and circumstances which include impacts on land development. Both B_DP04 and D_DP06 have a 'High' prioritisation level to ensure that LCY extant planning permissions and local context and circumstances are key considerations for the design. It is worth noting that the upgrading of airport routes using performance based navigation (PBN) to increase efficiency and the requirement to make better use of existing runway capacity is recognised in the CAA's Airspace Modernisation Strategy and the Government's Airports National Policy Statement regarding additional runway capacity in the South East. This ACP will seek to optimise trade-offs that maximise PBN efficiency benefits whilst upholding the predefined conditional and legal obligations contained within LCY's planning permissions, which includes any existing developments, known planned developments, and known land allocations. As such, alongside B_DP04 and D_DP06, both of which are priority 'High', we consider the wording and priority of this DP is appropriate.

(London Borough of Newham) "*Newham recognises that there are benefits of performance based navigation, including potentially carbon and safety benefits. However, the introduction of Performance Based Navigation at London City Airport has also led to disbenefits, most notably a concentration of flight paths which had tended to concentrated noise impacts under a smaller and narrow area, whereas the pre- 2016 non PBN system tended to produce more dispersal in practice. Therefore Newham does not agree that the introduction of PBN should in itself be give a high priority. Rather the specific impacts of a particular airspace design (whether PBN or not) needs to be assessed holistically. Any introduction of PBN should be consistent with the Air Navigation Guidance (2017) to limit, and where possible, reduce the number of people significantly affected by adverse impacts from aircraft noise*" and that "*No: the introduction of PBN can have positive and negative benefits, but since it is not intrinsically beneficial it should not automatically be given a high priority.*"

(HACAN East and Forest Hill Society) *"Regarding the comment headed "Other Info", we find this statement somewhat misleading. The introduction of RNP AR approaches does not make any significant new resolution or mitigation of the environmental challenges at the airport. These environmental challenges have remained in roughly the current balance since 1992, though in fact PBN made the situation significantly worse for many people when flight paths were concentrated in 2016, resulting in a four fold increase in complaints at the time. Urban location, safety, restricted airspace and noise mitigation are in a balance using the 5.5 degree approach mandated since 1992. This aims to achieve a reasonable balance between the airport's business need and the environmental noise needs of communities. It was introduced to allow noisier jet aircraft in to the airport amid great public controversy. This Design Principle to allow the 4.5 degree approach changes the balance between these in a way that appears to contravene ANG2017. While RNP AR may be useful to improve some aspects of operations this should only be done with aircraft able to handle the standard London City approach paths. It is not necessary for RNP AR to be introduced in order to fly quieter new generation aircraft at this airport, nor are the safety claims for RNP AR relevant – no one is claiming that there is a safety problem that must be addressed at this airport. We believe that the community noise price to be paid by introducing new non –standard and lower approaches is potentially too high. It will be for the airport to prove during this process their claim that the A320neo is "quieter than current aircraft at LCY", (London City Airport Airspace Change Process | London City Airport) and we suggest this can only be done through live operational trials. This is particularly important as these planes when full of passengers will be heavier than current aircraft. It is also important for the noise of a fully laden plane to be assessed through operational trials for the entire length of all is arrival and departure routes over London. LOW Priority."*

LCY thanks respondents for their feedback. It is worth noting that the upgrading of airport routes using performance based navigation (PBN) to increase efficiency and the requirement to make better use of existing runway capacity is recognised in the CAA's Airspace Modernisation Strategy and the Government's Airports National Policy Statement regarding additional runway capacity in the South East. With PBN, the overall level of aircraft track-keeping is greatly improved for aircraft tracks, meaning aircraft will be more concentrated around their published route. Whilst this does mean that noise impacts are concentrated on a smaller area, it also exposes fewer people to noise than occurs with equivalent conventional procedures, as well as offering increased options for the establishment of noise respite/relief routes in the event that an increased concentration of traffic is causing significant impacts on those living directly underneath the flightpath. The current 5.5° steep runway approach angle, required to ensure adequate safety margins for aircraft on the ILS approach, is prohibitive to the range of aircraft able to operate at the airport. Any reduction of this angle must achieve safe obstacle clearance in addition to ensuring the airport's noise level limits can still be adhered to. We will be evaluating aircraft noise levels during Stage 2 (Develop & Assess) and Stage 3 (Consult) of the CAP1616 process as we identify and develop viable design options and then progress the preferred options through more detailed modelling. D_DP07 will ensure that all design options at Stage 2 are evaluated with a view to limiting and, where possible, reducing the total adverse effects from aircraft noise. It has a 'High' prioritisation level to ensure that noise impacts are a key consideration for the design. As such, alongside D_DP07, we consider the wording and priority of this DP is appropriate.

Six respondents agreed that the 'High' prioritisation level was suitable for this DP, four respondents did not agree.

No other feedback received. No resultant changes to this DP.

D_DP06

D_DP06 The airspace change proposal must be informed by local context and circumstances. Priority: High

How has feedback influenced this DP?

Six respondents have provided comments on the wording of this DP:

(Anonymous, received during the online workshop) *"An important design principle that should be included is that the airspace change should not lead to any material change to the system of aerodrome safeguarding controls that would impact on the development potential of sites under the flight path".*

(Aviation consultancy) *"This is far too ambiguous. What is local? flight procedures can impact the environment over a wide reaching area. It needs to be more specific both in terms of range and what 'circumstances'".*

(London Borough of Newham) *"Newham agrees that the airspace change proposal should be informed by local context and circumstances, but consider that, as currently drafted, this design principle is not sufficiently precise to explain what it is intended to achieve. The explanatory text indicates that this is intended to relate to a wide range of issues including exposed dwellings, noise sensitive buildings, natural environmental and rural communities, local business and land development. Based on the information shared to date, it would appear that the proposal would have a limited impact on rural communities as both approaches are situated above London. Issues such as noise, nature conservation and the impact on other local businesses are important, but are difficult to encapsulate within one single DP. Please refer to our response to answer 22* [see Additional DP Feedback] *for further details in respect of the need to further emphasise the issue of safeguarding and land development through a specific design principle with a high priority. When assessing the 'local context and circumstances' assessments should take a 'future baseline' approach to capture the extensive change occurring in this part of East London including new housing growth and regeneration, for example housing development under the arrival slope."*

LCY understands concerns regarding the development potential of sites under the flight path. D_DP06 will ensure that all design options at Stage 2 are evaluated with respect to local context and circumstances which includes any impact of changes to aerodrome safeguarding on the local community, businesses and land development. It has a 'High' prioritisation level and will ensure that any local impacts are a key consideration for the design. It is worth noting that the scope or "range" of a design principle is limited to the airspace change itself, that is to say, it is a direct comparison of the specific change that is proposed against the current-day scenario should no airspace change take place. When assessing the local context and circumstances, the evaluations will encompass existing developments, known planned developments, and known land allocations only. Any new planning applications under the flight path, including future activities which may affect the safe operation of aircraft, require

consultation with LCY and lie outside of the CAP1616 process. The use of design principles at Stage 2 is principally a qualitative assessment against each design option, thus the evaluation of any impact on land development is the same qualitative assessment, (and will yield the same result) regardless of whether safeguarding/land development is expressed as an independent design principle, or considered with other local context and circumstances in a single design principle. The duplication of design principles serves only to complicate the evaluation process and does not affect the result. As such, we thank you for your feedback, but have determined not to include an additional DP for safeguarding/land development.

(HACAN East and Forest Hill Society) *"To the comment "Other Info" we would like to see some balance added and extension of the geographical areas to be considered. This should include communities under the arrivals path east of the airport and a very large area of SE London, where the current arrivals path is level at 2000ft for some 30km. The visual and noise impact of increasing numbers of the larger A320neo will be far greater than the existing E190 fleet, and it will also, it is believed, be the noisiest new generation aircraft used by the airport, so noisier than the E190-E2 which is already in use at the airport. Crucially, it will also be heavier, a factor that normally correlates with increased noise impacts compared with lighter aircraft. As can be seen from this table, the A320neo is heavier in the order of between 24 and 41% than aircraft currently certified for LCY.*

Specification	Airbus A220-100	Airbus A320neo	Embraer E190-E2	Embraer E195-E2
Dimensions				
Length	35.0 m (114 ft 9 in) [1]	37.57 m (123 ft 3 in) [6]	36.2 m (118 ft 9 in) [14]	41.5 m (136 ft 2 in) [20]
Wingspan	35.1 m (115 ft 1 in) [1]	35.80 m (117 ft 5 in) [6]	33.7 m (110 ft 7 in) [14]	35.1 m (115 ft 2 in) [29]
Height	11.5 m (37 ft 8 in) [1]	11.76 m (38 ft 7 in) [6]	11.0 m (36 ft 1 in) [14]	10.9 m (35 ft 9 in) [20]
Weight				
Max Takeoff Weight (MTOW)	63.7 tonnes (140,500 lbs) [2]	79.00 tonnes (174,200 lbs) [6]	56.4 tonnes (124,340 lbs) [13]	61.5 tonnes (135,600 lbs) [20]
Empty Weight	52.6 tonnes (116,000 lbs) (Max Zero Fuel Weight) [2]	44.3 tonnes (97,700 lbs) (Operating Empty Weight) [7]	33.3 tonnes (73,400 lbs) (Operating Empty Weight) [14]	33.3 tonnes (73,400 lbs) (Operating Empty Weight) [29]

Until new arrivals routes with Continuous Descent Approaches and alternating arrivals routes are introduced, it will be far preferable for these communities to see the slower change currently modelled by the airport as the E190 is gradually replaced by the E190-E2. Studies reviewed at London City's recent Public Inquiry demonstrated that the new generation aircraft introduced to date by City are not noticeably quieter in level flight in these areas – it is absolutely not in the interests of these communities to increase the quantity of such low flying aircraft; far preferable to pause this proposal at least until new flight paths are bedded in. In any case we would expect the airport to comply with ANG2017 3.11 concerning overflight metrics to demonstrate the impact of introducing the A320neo. Supplementary metrics such as those specified in 3.11 must be used to inform communities about the likely impact of proposed changes. HIGH PRIORITY." LCY thank you for your feedback and confirm that all airspace change proposals align with the requirements of the Government's Air Navigation Guidance 2017, see M_DP03, priority 'High'. Our preliminary discussions have considered RNP AR procedures using the A320neo aircraft type. However, the potential for the procedure to be used by various different aircraft types, will be

investigated during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options. To clarify, while the A320neo has a higher passenger capacity, it is comparable in size to the E195-E2 which has already begun operations at LCY. In terms of noise categorisation, the A320neo falls into the '125-180 seat single-aisle 2-eng jet' aircraft grouping of the Aircraft Noise Contour model (used since 1995 to calculate noise contours at the designated London airports). This is the same noise category as the Airbus A220-100, the heaviest aircraft currently in operation at LCY. The potentially affected area is an approximate geographical region capturing the characteristics of the change proposal and, at this stage, represents the area associated with proposed changes to the notified airspace design only. At this early stage of the process, the potential impacts of the airspace change proposal are understood at an approximate level only. In Stage 2 (Develop & Assess) we will identify and develop viable design options, and the proposed flight paths will be used to identify impacts more accurately, allowing this geographical region to be updated accordingly. It is worth noting however, that noise assessments are not limited to the volume of airspace depicted by a specific geographical region; any changes in traffic patterns, traffic volumes or fleet mix below 7,000 feet (for all aircraft movements) are incorporated into the noise modelling and as such all environmental impacts for an airspace change are included in the assessment. More information on the assessment of noise impacts can be found in the CAA's CAP1616i.

(Local resident) *"LCY impacts large areas of North and South London. The introduction of larger aircraft should consider all areas overflown. Especially if the new engines are found to be louder away from the airport than those on the current generation. Also it is important that what "significant impact on local communities" means is not just decided by the airport."* LCY thank you for your feedback and would like to emphasise that the full extent of any noise impacts will be assessed in alignment with the environmental requirements of the CAP1616 process and this data will be provided to support the full public consultation for this airspace change proposal. The decision to change the notified airspace design over the UK is not made by the airport itself; the CAA, as the UK's independent aviation regulator, has primary responsibility for deciding whether or not to approve any airspace change proposal. Exceptionally (under certain conditions) the Secretary of State may become the decision maker instead of the CAA.

In consideration of the feedback received for this DP, the wording is changed as follows: The airspace change proposal must be informed by local context and circumstances; minimising impacts on the wide variety of communities close to the airport such as exposed dwellings, noise sensitive buildings, natural environment, local population, local businesses and land development.

Respondents all agreed that the 'High' prioritisation level was suitable for this DP.

No resultant changes to the priority of this DP.

D_DP07

D_DP07 The airspace change proposal should limit and, where possible, reduce the total adverse effects from aircraft noise. Priority: High

How has feedback influenced this DP?

Seven respondents have provided comments on the wording of this DP:

(An airline operator) "*As noise is the main concern regarding impact on the local environment and communities, but there is no movement to limit the use of the existing procedures, there should be limits set for aircraft to be permitted to use (or not use) the new procedures, this should be the deciding factor, not whether an aircraft is a specific model made by a specific manufacturer*". LCY thank you for your feedback and we will be evaluating aircraft movements/noise levels, in addition to the potential for the procedure to be used by various different aircraft types, during Stage 2 (Develop & Assess) and Stage 3 (Consult) of the CAP1616 process, as we identify and develop viable design options, and then progress the preferred options through more detailed modelling. It is desirable not to have to implement an 'aircraft-type' specific procedure, however, the definition of which aircraft may be permitted to use (or not use) the new procedures extends beyond noise considerations; use of the procedure by other aircraft types would be subject to flight testing, assurance/validation and compliance with regulatory requirements.

(General Aviation Alliance) "*The lower noise of more modern aircraft could be negated by them flying at a much lower altitude. A better solution would be to investigate the highest safe approach angle that can be achieved*". LCY thank you for your feedback and we will be evaluating aircraft noise levels during Stage 2 (Develop & Assess) and Stage 3 (Consult) of the CAP1616 process as we identify and develop viable design options, and then progress the preferred options through more detailed modelling. The scope of this airspace change proposal is to introduce an RNP AR procedure that will remove the current steep approach certifications associated with operating on a 5.5° glideslope. As such the UK steep approach certification requirements are a constraint on the highest approach angle that can be considered for this procedure.

(Aviation consultancy) "*be more specific. What do you define as 'total adverse impacts'? Why, where possible? eg, 'the airspace change proposal shall not increase the noise impact of residents living within a 10km range of the airport by more than 5%?'*" The noise implications of any proposed airspace changes are assessed in accordance with the Government's Air Navigation Order 2017, which defines 'total adverse effects' as those "related to health and quality of life" and additionally details the thresholds and metrics required for consideration. With any low level (below 7,000ft) airspace change the aim is to balance the needs of the aviation industry for an efficient airspace design and those of communities that want the noise impacts of aircraft movements to be minimised. The proposal to include a DP defining a specific noise/range threshold would limit potentially viable and beneficial options from being included for consideration. D_DP07, priority 'High', will ensure design options are evaluated with respect to limiting and, where possible, reducing the total adverse effects from aircraft noise. As such, we thank you for your feedback, but have determined not to include a specific noise/range threshold within the DPs.

(London Borough of Newham) "*Newham Council is supportive of any changes to London City Airport's operations that would reduce the total adverse effects from aircraft noise. Indeed, London City Airport's existing planning permission comprises a range of existing controls which all seek to reduce the noise impact of the airport's operations. Newham acknowledge that re-fleeting to newer aircraft can help to*

reduce noise impacts. However, it should be acknowledged that the existing operations do allow for refleeting, which was demonstrated by the information submitted in support of London City Airport's recent Section 73 planning application (22/03045/VAR) which showed that even in a do-minimum scenario (i.e. not changing the airport's existing operations) there will be refleeting at the airport toward newer generation types such as the A220-100 and Embraer E-2 series (E195 and E190). London City Airport will need to robustly justify what comparators are used in any assessments, as noise comparisons between next gen aircraft and current gen aircraft such as the E190 E-1 are not necessarily useful or robust in the context of the changing fleet mix. Newham Council would support changes to the airport's airspace to reduce the total impact of aircraft noise, for example by allowing for some form of respite or greater dispersal to be provided. However, it should be noted that this is not driving the current proposals, and given the proximity to the final approach there appears to be limited scope to provide respite or dispersal". LCY thank you for your feedback. In line with the CAP1616 process the evaluation of design options during Stage 2 (Develop & Assess) will provide comparisons for the year of implementation with the proposed airspace change versus the same year without the proposed airspace change (year 1), and 10-years after implementation with the proposed airspace change versus the same year without the proposed airspace change (year 10). The proposed airspace change seeks to facilitate additional carriers with more modern aircraft at LCY that otherwise could not be accommodated, and to incentivise existing airline operators at LCY to accelerate their refleeting to take advantage of more modern aircraft with greater capacity. The acceleration of refleeting, in addition to growth above business as usual growth/changes will be captured in the Stage 2 environmental assessment and options appraisal. It is also worth noting that LCY is involved in the FASI (Future Airspace Strategy Implementation) programme which, alongside the other London airports, is addressing optimisation of London airspace on a larger scale and includes the organisation of both arrival and departure design options into systems for respite, or systems that disperse traffic in another way. This airspace change proposal is independent of the changes taking place within FASI; this is a relatively small change to LCY current arrival procedures, affecting the final stages of approach, ~2,000ft, based on existing tracks only, and proposes to implement before FASI. Thus, minimal change to existing tracks is a constraint on the design options that will be evaluated during Stage 2 (Develop & Assess) of the CAP1616 process.

(HACAN East and Forest Hill Society) *"Our first proposal is to change this to the following: The airspace change proposal should reduce the total adverse affects from aircraft noise. It is not sufficient in this very unusual, possibly unique case, to simply quote , as the airport has, a text drawn from ANG2017:- • The proposal here is to make a major development that affects the existing noise situation, and should therefore require a new Noise Action Plan to be consulted upon and submitted to DEFRA. • It is to change a flight path to fly lower over London communities, a path that has been in place to keep aircraft higher for longer as a major and often quoted part of the airport's noise mitigation measures since 1992. • Since 1992 the areas 8.8 km to the east and to the west of the airport have changed beyond recognition in the number of homes affected by aircraft noise. A heavier aircraft flying lower over homes is going to be a major change. • The removal of "where possible" means that the airport must demonstrate very clearly that this change would not only be in its own business interests, but be a positive change in the environmental interests of overflown communities. We believe this aircraft to be the noisiest new generation aircraft yet proposed by the airport, which already has permission to fly at 5.5 degrees the E190-*

E2, the Airbus 220 and the E-195. We are content for the airport to press on over time with refleeting with these aircraft but there must be a clear and demonstrated positive noise advantage to the overflown if the approach angle and altitudes are to be lower. We further propose that DP7 should be further changed to read as follows:- The airspace change proposal should reduce the total adverse affects from aircraft noise. This must be demonstrated by live operational trials and measurements comparing the A320neo and already permitted new generation aircraft, made at and around the airport and also further out under the two arrivals flight paths, departure paths and in level flight over SE London. The process for live operational trials is set out in ANG2017 2.15. We consider that this is an excellent case to take forward, and a more appropriate and accurate methodology than use of simulation given the sensitivity of lowering this flight path which is already low over London communities. CAA should recognise this and set it into the Design Principles from the outset. It is absolutely key that the CAA does not permit the airport to frame this as a comparison between the old generation E190 and the A320neo. This is a false comparison. The airport has permission, regularly uses and has for many years modelled fleet regeneration citing the E190-E2 particularly. The A320neo needs to demonstrate noise reduction compared with the new generation aircraft already flying at City, and also using its standard 5.5 degree approach. This comparison needs to show also noise impact compared with the A320neo flying at 4.5 degrees, i.e. lower than the other new generation aircraft. Rather than debate this using certification data drawn up in controlled conditions and complex computer modelling that the community has little chance of understanding, the airport should demonstrate its noise reduction claims with real world measurements of the comparative noise impacts. This should include trials when departing. Although the gradient will be the same on departure, the size of the plane may require different procedures such as a wider take-off arc. HIGH PRIORITY." We would like to emphasise that the use of design principles at Stage 2 is principally a qualitative assessment against each design option; simulations and operational flight trials take place, as appropriate, at later stages of the assurance process. In line with the CAP1616 process the evaluation of design options during Stage 2 (Develop & Assess) will provide comparisons for the year of implementation with the proposed airspace change versus the same year without the proposed airspace change (year 1), and 10-years after implementation with the proposed airspace change versus the same year without the proposed airspace change (year 10). The proposal to change the DP wording to omit the phrase "limit and, where possible, reduce" would limit potentially viable and beneficial options from being included for consideration. We have included B_DP04, priority 'High', to ensure that all design options at Stage 2 are evaluated with respect to the current LCY planning permissions which include a number of measures designed to manage and mitigate the noise impact of aircraft operations at LCY. As such, we thank you for your feedback, but have determined not to amend the wording of this DP.

(Local resident) *"Once again, how much quieter are the new aircraft in operation and where are they quieter?"* LCY recognises the importance of considering where local impacts may be greatest, and specifically concerns around noise. At this early stage of the airspace change process the flights paths have not yet been designed, however we will continue to engage with key stakeholders during Stage 2 (Develop & Assess) of the CAP1616 process, where further detail of changes to aircraft tracks will be defined, and the noise impacts will be better understood. We welcome any feedback on the design options at this stage.

Respondents agreed that the 'High' prioritisation level was suitable for this DP.

No other feedback received. No resultant changes to this DP.

B_DP08

B_DP08 The airspace change proposal should enable more cost-effective operations for airline operators at London City Airport. Priority: High

How has feedback influenced this DP?

Seven respondents have provided comments on the wording of this DP:

(Airline operator) *"I agree with this wording."* LCY thank you for your feedback.

(General Aviation Alliance) *"The primary driver should* [not] *be economic, but environmental."*

(Aviation consultancy) *"But this should not be at the expense of land owners, developers, and economic growth of the wider London economy. This is also a duplication of objectives with DP5. Surely more-efficient operations and cost-effective operations are one and the same thing?"* and that *"As before, this is only serving the economic interests of the airport."*

(London Borough of Newham) *"Newham does not agree with this important design principle. London City Airport is currently highly restricted operationally, with a steep approach and relatively short runway. This reflects its unique location as a city centre airport approximately 3.5 kilometres from Canary Wharf and 9 kilometres to the City of London. The airport was constructed in the 1980s when tall buildings were already in place or under construction in these two locations. The current operations at London City Airport, such as the steep approach and short runway, clearly impact on the cost-effectiveness of airline operations as they restrict the types of aircraft that can operate, but the airport is operates effectively with a range of turboprop, private jet and regional jets serving short to medium haul destinations. The desire by London City Airport to make airline operators more cost effective, for example by allowing different aircraft or airlines to operate, should not take precedence over other environmental issues such as noise or lead to economic impacts on land development in the area"* and that *"No, the impact of the airspace change proposal on the cost effectiveness of airline operators should not be given a high priority."*

(HACAN East and Forest Hill Society) *"While the airport must make its own business case, this is not a High Priority principle for an airspace change. More of a nice to have."*

(Local resident) *"Presumably this is always the goal of the airport but shouldn't be at the expense of people overflown by flights to and from LCY."*

LCY recognises that impacts to land owners, developers, local businesses and local communities close to the flight path are an important issue, and we have reflected this by including D_ DP06, which has a 'High' prioritisation level and will ensure that any local impacts are a key consideration for the design, and B_DP04, priority 'High', to

ensure that all design options at Stage 2 are evaluated with respect to the current LCY planning permissions which include a number of measures designed to manage and mitigate the noise impact of aircraft operations at LCY. LCY is proud of the significant contribution it makes to the London economy and the local area, and we will continue to work closely with local stakeholders to understand and mitigate any local impacts associated with airspace change. For clarification, D_DP05 relates to upgrading airport routes using performance based navigation (PBN) to increase airspace efficiency. PBN enhances airspace efficiency by allowing for more accurate flight paths, improving airport access and ultimately leading to a more streamlined and efficient air traffic management system. B_DP08 does not duplicate D_DP05, but differs in that it relates to the economic opportunities afforded by this change that are important to our airline operators, specifically enabling them to deploy aircraft with greater capacity, lower seat costs and increased yields than would otherwise be available. Additionally, removing the constraint of steep-approach procedures, and enabling a wider range of modern aircraft creates the opportunity for new operators to fly from LCY, benefiting customers by providing a greater range of destinations than previously. LCY recognises that environment is an important issue, and we have reflected this with four DPs that explicitly address environmental considerations (M_DP03 – priority 'High', D_DP07 – priority 'High', D_DP09 – priority 'Medium', and B_DP10 – priority 'Medium') and three DPs that include environmental considerations within their scope (M_DP02 – priority 'High', B_DP04 – priority 'High', and D_DP06 – priority 'High').

This design principle represents the needs of our aviation stakeholders and furthermore, within the complete set of DPs, both environmental considerations and local impacts, form part of the key criteria that the proposed design should meet. As such, we consider the wording of this DP is appropriate. However, in consideration of the feedback received, we have changed the priority of this DP from 'High' to 'Medium'.

Five respondents have agreed with the priority of this DP, and five respondents have disagreed with the priority of this DP.

No other feedback received. No changes to the wording of this DP, priority is changed from 'High' to 'Medium'.

D_DP09

D_DP09 Where options for route design for the airspace change proposal are similar in terms of the number of people affected by total adverse noise effects, preference should be given to that option which is most consistent with existing published airspace arrangements. Priority: Medium

How has feedback influenced this DP?

Six respondents have provided comments on the wording of this DP:

(London Borough of Newham) *"Based on the information shared to date, which appears to show that the arrival tracks would not change horizontally but instead would only change vertically (i.e. the height and gradient of the arrival slope), there appears to be limited scope to change the airspace in a way that would change the people who are affected by aircraft noise. Newham considers that the approach*

should be informed by the Airspace Navigation Guidance (2017) to limit and where possible reduce the number of people adversely affected by noise, with the overall focus on providing for planned respite, rather than a zero sum judgement to focus noise on one community instead of another". LCY thank you for your feedback and confirm that all airspace change proposals align with the requirements of the Government's Air Navigation Guidance 2017, see M_DP03, priority 'High'.

(General Aviation Alliance) *"This would unneccesarily limit the scope of the ACP. It would potentially limit any investigation of better trajectories with less environmental impacts, simply because of additional design effort that might be required for new procedures"* and that *"DP9 should be revised as above and given a HIGH priority".*

(Aviation consultancy) "I think this sounds fair" and that "I think this should have more weight than 'benefiting the economic interests of the airport'. i.e. more-efficient, or more-cost effective."

(HACAN East and Forest Hill Society) *" It is not understood why this is listed as a Design Principle by the airport. In the arrivals area under consideration there is no possibility that we can see that the track over the ground from 8.8 km to the east or 8.8 km to the west can change at all. Furthermore, it is not understood how the airport has ranked this as medium. Permission to fly this plane lower must not in any way limit the scope for respite in the forthcoming airspace change proposals. We do not agree that preference should be for those who are already overflown to continue to be so when the decision to overfly existing communities was taken without any consultation or respite built into the flight paths in 2016. We believe more equitable approaches to the distribution of airspace noise should be considered at every opportunity - if the theory is the airport benefits the south east/London as a whole then so the downsides should be shared fairly too. In our view it strengthens the case this proposal should be put on hold until the airspace change proposals have been agreed, bedded in and post implementation review completed."*

(Local resident) *"No with airspace usage across the UK being re-organised and modern navigation systems allowing aircraft to follow more precise routes, the opportunity is there to vary flight paths giving Londoners proper respite from aircraft noise."* and that *"The initial concentration of flight paths created a nightmare for people in London. Heathrow Airport has taken some steps to alleviate this in West London but LCY always seems to find a reason not to do this as well."*

LCY thanks respondents for their feedback and confirm that this airspace change proposal is not a constraint on the FASI (Future Airspace Strategy Implementation) programme which, alongside the other London airports, is addressing optimisation of London airspace on a larger scale and includes the organisation of both arrival and departure design options into systems for respite, or systems that disperse traffic in another way. This airspace change proposal is independent of the changes taking place within FASI; this is a relatively small change to LCY current arrival procedures, affecting the final stages of approach, ~2,000ft, based on existing tracks only, and proposes to implement before FASI. Thus, minimal change to existing tracks is a constraint on the design options that will be evaluated during Stage 2 (Develop & Assess) of the CAP1616 process and, due to the restricted nature of this airspace

change, this DP has been allocated a 'Medium' priority level. As such, we consider the wording and priority of this DP is appropriate.

Five respondents have agreed with the priority of this DP, three respondents have disagreed with the priority of this DP, and two respondents have not commented on the priority of this DP.

No other feedback received. No resultant changes to this DP.

B_DP10

B_DP10 The airspace change proposal should promote and incentivise the use of new generation, environmentally efficient aircraft at London City Airport. Priority: Medium

How has feedback influenced this DP?

Six respondents have provided comments on the wording of this DP:

(Airline operator) *"I think that rather than focusing on the type of aircraft (the A320neo is 9 years old so not that new), this should focus on more environmentally efficient flight paths (one of the benefits possible from RNP(AR)). Whether or not an aircraft is certified for steep approaches and/or RNP(AR) does not determine or contribute to whether it is environmentally efficient (I don't know whether with appropriate investment the A320neo could be modified to enable it to perform steep approaches, like the A318? If so then this would not make it any less "environmentally efficient) and since the change is solely aimed at reducing the approach angle, this statement seems to imply there could be restrictions placed on aircraft which cannot fly the RNP(AR) approaches, despite the fact these may be environmentally efficient - otherwise given the context of this proposed change, how do you plan to "incentivise"? I would suggest something like "The airspace change proposal should facilitate the use of additional new generation, environmentally efficient aircraft at London City Airport." or "The airspace change proposal should facilitate the use of additional new generation, environmentally efficient aircraft operating on more environmentally efficient flight paths at London City Airport." although the second suggestion might not be aligned with the intention to keep the ground tracks identical".*

(General Aviation Alliance) *"The assumption is that modern aircraft cannot fly a 'steep' 5.5 degree approach. No evidence has been produced that this is so. The ACP seems to be based on a further assumption that because they are 'quieter' they should be allowed to fly a lower angle. The aim should be to SIGNIFICANTLY REDUCE the noise levels, not maintain them"* and that *"DP10 is too simplistic. See above. The suggestion is that New generation aircraft cannot perform aerodynamically as well as the existing types that use LCY, which seems odd. Could it be that when flying a 5.5 degree approach modern types are noisier due to high lift (more efficient) wings and high power settings required to offset the resultant drag? They are only 'quieter' at shallower aprroach angles?"*

(London Borough of Newham) *"Newham agrees with the principle that the airspace change proposal should promote and incentivise the use of new generation,*

environmentally efficient aircraft at London City Airport, but disagree that the removal of 5.5° is required to do so. It should be acknowledged that the existing operations do allow for new generation aircraft such as the A220-100, Embraer E190 E-2 and E195 E-2. The 'do minimum' fleet mix projections put forward by London City Airport during their Section 73 Planning Application (22/03045/VAR) which were agreed by all parties at the inquiry (Newham and HACAN East) show that these next generation aircraft types will take an increasingly large percentage of the fleet mix under the existing operation conditions. Therefore the text in the 'other info' which suggests that the existing glide slope is a barrier to newer generation aircraft operating is not agreed. Newham also wishes to highlight the operational difficulties in regulating which aircraft use the two different approaches. There is a risk that allowing a reduced glide slope for the A320neo leads to other aircraft (which may or may not currently operate from LCY) using the 4.5 degree approach."

(HACAN East and Forest Hill Society) *"We think this is self serving by the airport and not a well thought through DP. It attempts to create a DP that supports its own proposal which is commercially driven, aimed at flying more and larger aircraft. We could not prioritise this poor DP and suggest a rethink It might just as well say what it really means, and we are not advocating this. DP10 The airspace change proposal should enable greater numbers of much larger aircraft from an increased number of destinations into London City Airport. The airport has measures within its direct control which it does not apparently use to incentivise more of the new generation aircraft that are already flying the standard approach. For example in its published schedule of landing charges it makes no distinction or discount, unlike several other airports. London City Airport Fees and Charges | London City Airport. Why should an airspace change that looks as though it has adverse noise impacts be required in order to ensure that the airport does what it has promised since 2016 and has failed to deliver in any meaningful numbers, that is the introduction of new generation aircraft which it claims are more efficient and also quieter? We could instead make the case to say the Design Principle should say:- DP10 The airspace change proposal should promote and incentivise routes that use Continuous Descent Approaches, stay higher for longer and reduce the environmental impacts over London communities.".*

(Local resident) *"It would have to be proved that other models of newer aircraft couldn't achieve the same results and stick to the current agreed approach angle. Also if this is approved what is to stop LCY trying to apply this to all new and existing aircraft. Forcing Londoners to fight more planning decisions on their own with scant resources compared to LCY".*

LCY thanks respondents for their comments. We agree that the navigational capability of aircraft does not determine its environmental efficiency. However, the current 5.5° steep runway approach angle, required to ensure adequate safety margins for aircraft on the ILS approach, is prohibitive to the range of aircraft able to operate at the airport. The objective of this airspace change proposal is to introduce approach procedures which will increase the range of modern aircraft able to operate at LCY, and, as such, this design principle will ensure that our design options meet this criteria. It is worth noting that any reduction of the approach angle must achieve safe obstacle clearance in addition to ensuring the airport's noise level limits can still be adhered to. As such, both the enhanced navigational capability as well as the ability to support reduced noise-output, is a pre-requisite for aircraft on shallower

approaches. We believe that introducing such procedures could incentivise those airlines currently operating at LCY to refleet to more modern aircraft faster than the standard aircraft replacement cycle, taking advantage of aircraft with greater passenger capacity, lower seat costs and increased yields. We will be evaluating aircraft noise levels during Stage 2 (Develop & Assess) and Stage 3 (Consult) of the CAP1616 process as we identify and develop viable design options and then progress the preferred options through more detailed modelling. This work will consider a range of approach angles and include collaborative working alongside aircraft manufacturers to ensure the flyability and safety of any proposed changes to the angle of approach. LCY understands the importance of reducing noise impacts and this is reflected in D_DP07 to "limit and, where possible, reduce the total adverse affects from aircraft noise", which is a 'High' priority DP.

In consideration of the feedback received for this DP, the wording is changed as follows: The airspace change proposal should facilitate the use of additional new generation, environmentally efficient aircraft at London City Airport.

Seven respondents have agreed with the priority of this DP, one respondent has disagreed with the priority of this DP, and two respondents have not commented on the priority of this DP.

The priority of this DP remains 'Medium'.

D_DP11

D_DP11 The airspace change proposal should consider the impacts on air navigation service providers and other aviation stakeholders such as nearby airport operators. Priority: Low

How has feedback influenced this DP?

Four respondents have provided comments on the wording of this DP:

(General Aviation Alliance) *"LCY operations already have an effect on operations LHR and Biggin Hill, and to a smaller extent on Lond Southend. To suggest otherwise is a falicy"* and that *"It's wrong. LCY ops do have an effect on other ANSPs and Stakeholders"*. LCY thank you for your feedback, and we would like to emphasise that design principles are specific to the scope of the airspace *change* only. LCY, along with the other London airports, is within the most complex region of UK airspace, the London Terminal Manoeuvring Area (LTMA). There are many interacting flightpaths to and from all the London airports, and it is an area of high air traffic control complexity, with many interdependencies between inbound and outbound procedures to deconflict traffic. We recognise that impacts to other airports are an important issue, and we have included D_DP11 within our design principles to ensure that all design options at Stage 2 are evaluated with respect to impacts on other aviation stakeholders. However, this is a relatively small change to LCY current arrival procedures, affecting the final stages of approach, ~2,000ft, based on existing tracks only. We do not anticipate this change to impact the procedures we have in place with other airports, and with respect to Heathrow, Biggin Hill, and Southend operations, the change is below their departure and arrival routes. As such this DP has been assigned a 'Low' priority rating.

(British Airways) *"If the A320neo carrys out a missed approach at LCY, the performance of this aircraft is such that it is more likely to have a level bust and because the arrivals for LHR are over the top of LCY, an increase in the potential for a mid-air collision. The A320 does have a 'soft GA' function which limits the rate of climb in the event of a G/A but consideration must be taken in case this is not used correctly".* LCY thank you for your feedback. Aircraft performance on missed approaches will be taken forward for further consideration during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options.

(London Borough of Newham) *"Newham does not have any detailed feedback on technical aviation issues which sit outside its remit. Newham would like to better understand the inter-relationship between the current airspace proposal and the airspace modernisation that is being promoted by London City Airport (London Airspace Management Programme (LAMP) Deployment 2. Airspace change ID: ACP-2020-043). It would appear that the two proposals are inconsistent with one another, in that the previous proposal sought to keep aircraft at a higher altitude for longer, whereas the current proposal introduces a more gradual approach"* and that *"The rationale for this design principle being a low priority appears to be sound".* LCY thank you for your feedback. The London Airspace Management Programme (LAMP) Deployment 2 airspace change proposal is part of the FASI (Future Airspace Strategy Implementation) programme which, alongside the other London airports, is addressing optimisation of London airspace on a larger scale, including network changes (above 7,000ft) alongside airport changes (below 7,000ft). More information about FASI and the CAA's Masterplan can be found here. This airspace change proposal is independent of the changes taking place within FASI; this is a relatively small change to LCY current arrival procedures, affecting the final stages of approach, ~2,000ft, based on existing tracks only, and proposes to implement before FASI.

(Local resident) *"This seems to be in line with the upcoming airspace re-organisation".* LCY thank you for your feedback.

Eight respondents have agreed with the priority of this DP, and two respondents have disagreed with the priority of this DP.

No other feedback received. No resultant changes to this DP.

Additional DP Feedback

The following additional DP feedback has been provided by respondents:

(Airline operator) *"The design parameters should provide access to the new procedures for as many of the existing fleet currently operating to London City as possible. To achieve this, the procedure designers should ensure to use an RNP of not less than 0.3nm on the final approach and not less than 1.0nm on the missed approach, as this is the baseline certification standard for the majority of aircraft which have RNP(AR) capability. I believe this should be a high priority".* The scope of this airspace change proposal is to introduce an RNP AR procedure that will remove the current steep approach certifications associated with operating on a 5.5° glideslope, improving access to a wider range of modern aircraft at the airport. We are preserving the existing ground-based instrument approach procedures and approach angles for use by the current fleet. An enhanced navigational capability as well as the

ability to support reduced noise-output, is a pre-requisite for aircraft on shallower approaches and we will be evaluating the required navigational performance of aircraft during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options. The proposal to include a DP defining a specific RNP standard would limit potentially viable and beneficial options from being included for consideration. D_DP05, priority 'High', will ensure design options are evaluated with respect to an appropriate and, where possible, optimised, standard of performance based navigation. As such, we thank you for your feedback, but have determined not to include specific RNP standards within the DPs.

(General Aviation Alliance) *"Yes. The ACP should also investigate whether the amount of airspace currently required for LCY ops is appropriate and whether this can be reduced as a result"*. LCY thank you for your feedback, however it is worth noting that we are involved in the FASI (Future Airspace Strategy Implementation) programme which, alongside the other London airports, is addressing optimisation of London airspace on a larger scale and will review all airport arrival and departure procedures with that aim. This airspace change proposal is independent of the changes taking place within FASI; this is a relatively small change to LCY current arrival procedures, affecting the final stages of approach, ~2,000ft, based on existing tracks only, and proposes to implement before FASI

(Aviation Consultancy) *"1/. Design will take account of consented development within the airport OLS boundaries, including associated potential construction activities which can typically be accommodated above the OLS (depending on location). 2/. Design will not significantly negatively impact land value and development potential of sites within London City Airport's obstacle limitation surfaces. 3/. Design will not result in any significant reduction in heights of London City Airport's obstacle limitation surfaces, taking account of the design premise of the ICAO proposed 'New' OLS"*

(London Borough of Newham) *"Newham considers that the impact of the proposed airspace change on land development will be a key consideration of the airspace change proposal, and therefore a specific design principle with a high priority should be adopted. Newham Suggests the following wording: 'The airspace change proposal should not lead any change to London City Airport's Safeguarding Criteria that would impact on land development' It must be acknowledged that once the airspace has been changed and London City Airport adopt new safeguarding criteria, Local Planning Authorities such as Newham are required by the Safeguarding aerodromes, technical sites and military explosives storage areas circular (2003) to follow the advice of officially safeguarded airports such as London City Airport. Local Planning Authorities are not able to approve developments which an airport objects to on safeguarding grounds unless they are referred to the Secretary of State. In practice, however, this is a very rare situation as LPA's will defer to the airport on safeguarding issues and developers will generally seek to agree proposals with the airport at pre-application stage, taking advice from safeguarding consultants. A plan showing the arrival tracks in yellow was shared during the engagement session which showed the location that the airspace change relates. This area covers a number of designated Opportunity Areas under the London Plan, including the City Fringe/Tech City, Canary Wharf, the Royal Docks and Beckton Riverside, Thamesmead and Abbey Wood. Opportunity areas are identified in the London Plan (2021) as being areas with the capacity to accommodate a large amount of new housing, commercial*

development and infrastructure. It is also noted that the arrival tracks cover some of the most economically productive areas of London and the wider UK, such as the City of London and Canary Wharf. New restrictions on land development in this area could potentially have nationally significant economic impacts. In Newham, the Royal Docks and Beckon Riverside comprise a large number of strategic sites where the Council expects to be deliver extensive housing and commercial floorpsace under its current and emerging local plan. Changes to London City Airport's safeguarding criteria could therefore have fundamental impacts on the delivery of Newham's existing and emerging local plans. As noted previously, assessments should take these issues into account by using a 'future baseline' approach. Based on the information shared to date, it would appear that introducing the A320 neo would require changes to the current system of aerodrome safeguarding, as they are larger aircraft than currently operate and will descend more gradually, requiring additional safeguarded space around the arrival slope. A320neo operations may also have other technical/operational differences from other aircraft, for example one engine climb out/missed approach requirements which could be more restrictive. Newham awaits further technical information from the airport and is likely to appoint safeguarding advisers to support the Council's response to this issue, noting it does not have safeguarding expertise in house. Newham declared a Climate Emergency in 2019 and adopted at Just Transition Plan in December 2023. A design principle with a high priority should be added to require the airspace change to maximise the potential for reduction in fuel burn and therefore reduce carbon emissions. Newham considers that a design priority relating to local air quality should be added, as slower descent rates could worse local air quality impacts."

For both of the above responses, LCY understands concerns regarding the development potential of sites under the flight path. Safeguarding zones are important to ensure that developments or activities within the airport's vicinity do not adversely affect the safe and efficient movement of aircraft, and (necessarily) are subject to change based on the risk of incident as an airport's operations change. D_DP06 will ensure that all design options at Stage 2 are evaluated with respect to local context and circumstances which includes any impact of changes to aerodrome safeguarding on the local community, businesses and land development. It has a 'High' prioritisation level and will ensure that any local impacts are a key consideration for the design. Should it transpire that an option will impact the size of these protected areas, then the relevant stakeholders will be informed and engaged with. When assessing the local context and circumstances, the evaluations will encompass existing developments, known planned developments, and known land allocations only. Any new planning applications under the flight path, including future activities which may affect the safe operation of aircraft, require consultation with LCY and lie outside of the CAP1616 process. With respect to fuel burn/carbon emissions and local air quality, the CAA's mandatory design principle M_DP03 requires all design options to be assessed for compliance with the Government's Air Navigation Order 2017, which includes 1) ensuring that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions and 2) minimising local air quality emissions and ensuring that the UK complies with its international obligations on air quality. This DP has a 'High' prioritisation level and will ensure that any environmental impacts are a key consideration for the design.

(HACAN East and Forest Hill Society) *"We are not sure where the following should fit within Design Principles but we believe that the airport needs to be very clear about*

the following issues: Will other planes use the shallower descent in future? If they did, this could potentially increase noise levels significantly. London City must be clear about its intentions on this. It is possible to see a situation where larger planes, flying lower, become the norm, with unknown noise impacts for people under the flight paths. What account will be taken of the visual impact? Lower aircraft, even if not noisier, can be more intrusive and therefore more disturbing to people. Will the A320neo require more work to be carried out at the airport? Will the current infrastructure be sufficient to accommodate a large number of A320neos should they start using the airport or will new infrastructure be required? If space is tight, for example, to store a lot of planes overnight, will this lead to pressure for more late evening departures or even Saturday afternoon operations? If the A320neo is permitted and then the airport wants to introduce additional types of larger aircraft flying at 4.5 degrees, will each proposal require a CAP1616 consultation? We hope the airport will consider all of the comments above when devising a set of principles to take to the CAA." LCY thank you for your feedback. We will be evaluating the scope of using RNP AR procedures, including the aircraft type/s that may be permitted to use such procedures, during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options. We are preserving the existing ground-based instrument approach procedures and approach angles for use by the current fleet; an enhanced navigational capability as well as the ability to support reduced noise-output, is a pre-requisite for aircraft on shallower approaches. Any change to the visual impact for people under the flight paths (known as 'overflight') is incorporated into the noise modelling at a later stage of the process, and more information on the assessment of noise impacts can be found in the CAA's CAP1616i. We do not anticipate this airspace change proposal will require any changes to the City Airport Development Programme (CADP) infrastructure or any of the operational or environmental controls secured within it and, specifically, have included B_DP04, priority 'High', to ensure that the planning conditions that LCY operates under are a key consideration for the design.

(Local resident) *"What wider impacts will these new planes have and how will they be measured. It seems short sighted to say this is only going to affect the last few kilometres and have more problems crop up elsewhere which LCY can conveniently wash their hands of."* LCY thank you for your feedback. For clarification, this airspace change proposal seeks to introduce RNP AR procedures by adjusting the vertical profile for aircraft on the final kilometres of the approach with minimal changes to existing tracks over the ground; this is the scope of the change to the notified airspace design over the UK. It is worth noting however, that the CAP1616 process involves comprehensive assessments for any resultant (direct or indirect) impact below 7,000ft which includes: Noise, Local Air Quality, Greenhouse Gas Emissions, Tranquillity, Biodiversity, Capacity/Resilience, UK Infrastructure, Economic impact, and Fuel Burn, in addition to assessment against specific criteria that are important to our stakeholders and defined through the identification of Design Principles.

No additional/new information. No other feedback received. No resultant changes to the DPs.

Post-engagement Stakeholder Feedback

Further contact was made with those individuals who provided DP responses to facilitate agreement on the wording and priority of the DPs that they had responded to. In these discussions, additional items were raised which have been captured here,

and will be taken forward for further consideration during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options:

- The definition and scope of UK 'Steep approach' classifications
- Navigation standards for RNP AR approach/missed approach procedures
- Weather limitations associated with RNP AR: high wind/crosswind conditions
- Safety impacts associated with any reduction in obstacle clearance zones
- Ensuring RNP AR aircraft on a go-around do not conflict with other traffic
- Any consequential impacts with the Biggin Hill ACP
- Noise impact of aircraft using nose-in stand layouts
- Consultation on any changes required to the LCY Noise Action Plan (NAP)
- Implications on the development potential of surrounding sites

7.3 Engagement Evidence

7.3.1 A summary of the Stage 1 engagement is provided below. For further details on stakeholder identification, the stakeholder list, engagement methodology, DP feedback questionnaire and the engagement timeline, see Appendix B.

Summary of meetings with stakeholders held during the DP engagement period

7.3.2 Following submission of the Statement of Need [Ref 3] in January and subsequent media coverage of the proposed change, a number of exchanges (TEAMs meetings and calls) have taken place between LCY and its closest stakeholders, including the London City Airport Consultative Committee (LCYCC). The airport has briefed these stakeholders on the proposal and the airspace change process, however no presentation or discussion of the design principles has taken place in these exchanges. Details have been included in an engagement tracker and, together with the slides from these meetings, provided to the CAA as supporting documents.

7.3.3 In March emails were sent to 181 individuals[14], inviting them to online workshops to explain the airspace change, the CAP1616 process, the concept of design principles and to provide an opportunity to answer any questions. 3 key stakeholders, for whom email addresses were not obtainable, had their invites sent by post.

7.3.4 The following key stakeholders, (representing those groups most likely to be impacted by the proposed change, or those who may be required to provide support or access to specific audiences, or other interested parties), were contacted:

London Borough and district councils (x12)

Greater London Authority

Greater London Assembly

City of London Corporation

Transport for London

Local constituency MPs (x10)

Local Councillors (x8)

Community groups (x8)

Airlines (x14)

[14] For some organisations more than one representative/different roles within the organisation have been contacted.

Jet Centre (x13)
Gatwick Airport
Heathrow Airport
Biggin Hill Airport
Southend Airport
Industry Groups & Businesses (x14)
Noise affected buildings (x47)
Ministry of Defence (MoD)
National Air Traffic Management Advisory Committee (NATMAC)
London City Airport Consultative Committee (LCYCC)
NATS

7.3.5 Three online workshops were held on 2nd April, 3rd April and 4th April 2025.

7.3.6 Information for this airspace change was also published on the LCY airspace change website.

7.3.7 All stakeholders who responded to our engagement invites were provided with links to the LCY airspace change webpage and encouraged to view the presentation and the Q&As, and to share their feedback on the draft DPs via a questionnaire on the website.

Invite responses rate

7.3.8 Invite responses were received from 66 individuals (36% response rate) and, of those who responded, 65 individuals attended the online workshops (98% attendance rate).

7.3.9 It should be stressed for all stakeholders' benefit that this engagement was solely on design principles which help to set the priorities by which developing designs will be measured. This was not a consultation exercise on flight paths, and was solely targeted at key stakeholders including local councils, local MPs, community groups, the airport consultative committee, business groups and aviation stakeholders. A full public consultation will be undertaken at a later stage when a mature set of route design options will be presented. This will be widely publicised and is currently anticipated to commence in 2026.

Feedback to stakeholders

7.3.10 Following the conclusion of the engagement period, and once the analysis had been completed, this document was produced and circulated to those stakeholders that responded in order to feedback the outcome. Stakeholders were also thanked for their input.

8. Conclusion

8.1.1 In this Stage 1 engagement exercise, we supplied key stakeholders with a set of draft design principles, and encouraged discussion and feedback. The responses received were analysed and influenced the development and prioritisation of the draft design principles.

8.1.2 This evolution has resulted in an amended list of final design principles, as detailed in Table 5 below, which cover the criteria that will be used to inform the development of the Design Options, Initial Options Appraisal and Design Principle Evaluation in Stage 2.

Table 5: Final design principles resulting from the engagement process. Green depicts a final design principle/priority that is unchanged from the draft proposal, and orange depicts a final design principle/priority that has been changed as a result of stakeholder feedback.

Design Principles	Category	Description	Priority	Notes
M_DP01	Safety	The airspace change proposal must maintain a high standard of safety and should seek to enhance current levels of safety.	High	The CAA have stated that this DP is required by all change sponsors.
M_DP02	Policy	The airspace change proposal should not be inconsistent with relevant legislation, the CAA's airspace modernisation strategy or Secretary of State and CAA's policy and guidance.	High	The CAA have stated that this DP is required by all change sponsors. The CAA's published Airspace Modernisation Strategy (CAP1711) describes what airspace modernisation must deliver including: • the need to increase aviation capacity • growth to be sustainable • the need to maximise the utilisation of existing runway capacity.
M_DP03	Environment	The airspace change proposal should deliver the Government's key environmental objectives with respect to air navigation as set out in the Government's Air Navigation Guidance 2017.	High	The CAA have stated that this DP is required by all change sponsors. The Government's Air Navigation Guidance 2017 provides guidance on airspace and noise management including: • limiting and, where possible, reducing the number of people in the UK significantly affected by adverse impacts from aircraft noise • ensuring that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions • minimising local air quality emissions and ensuring that the UK complies with its international obligations on air quality.
B_DP04	Local context and circumstances	The airspace change should not inhibit the ability for the airport to meet its conditional and legal obligations contained within the City Airport Development Programme ('CADP') planning permission and the associated section 106 agreement.	High	The CADP permission (including its subsequent amendments) provides the airport with the consent to develop the physical infrastructure required to handle 9million passengers per annum and 111,000 air traffic movements. The permission is conditional upon a range of other operational and environment controls including, but not limited to, the number of aircraft stands, the number of aircraft movements per hours, the times in which aircraft can land and depart, noise management, air quality monitoring, and surface access, amongst others.
D_DP05	Performance based navigation	The airspace change proposal should enable efficiency benefits by using an appropriate and, where possible, optimised standard of performance-based navigation.	High	The intent of this design principle is the provision of a design that supports the introduction of RNP AR approaches, addressing the environmental challenges at London City Airport, whilst effectively managing standard arrival operations on precision ILS (instrument landing system) approaches.
D_DP06	Local context and circumstances	The airspace change proposal must be informed by local context and circumstances; minimising impacts on the wide variety of communities close to the airport such as exposed dwellings, noise sensitive buildings, natural environment, local population, local businesses and land development.	High	The intent of this design principle is to consider where local impacts may be greatest.

D_DP07	Noise	The airspace change proposal should limit and, where possible, reduce the total adverse effects from aircraft noise.	High	By seeking to introduce quieter aircraft and minimise changes to existing tracks over the ground. Modern aircraft are quieter and therefore can be lower with less noise impact.
B_DP08	Economics	The airspace change proposal should enable more cost-effective operations for airline operators at London City Airport.	Medium	
D_DP09	Noise	Where options for route design for the airspace change proposal are similar in terms of the number of people affected by total adverse noise effects, preference should be given to that option which is most consistent with existing published airspace arrangements.	Medium	By seeking to minimise changes to existing tracks over the ground
B_DP10	Environment	The airspace change proposal should facilitate the use of additional new generation, environmentally efficient aircraft at London City Airport.	Medium	By removing the current steep approach certifications associated with operating on a 5.5° glideslope.
D_DP11	Other aviation stakeholders	The airspace change proposal should consider the impacts on air navigation service providers and other aviation stakeholders such as nearby airport operators.	Low	The intent of this design principle is to ensure that wider impacts on the aviation community are included for consideration; however, a change to airport procedures such as this, which is so close to the final approach, is not anticipated to have ramifications on other airport operators etc. and therefore is considered a low priority.

9. Appendix A: Planning conditions & legal obligations for LCY

9.1.1 A summary of the planning conditions and legal obligations for LCY, which are considered relevant to this airspace change proposal, are provided in Table 6 below.

9.1.2 The City Airport Development Programme ('CADP') is the planning permission that LCY operates under. The CADP Planning Permission was granted in 2016 by the Secretaries of State for Transport and Communities and Local Government following a public inquiry. All of the background to this planning permission including the decision notice and the section 106 agreement can be accessed from Newham Council's planning register using the reference 13/01228/FUL.

9.1.3 Planning permission was granted by the Secretary of State on appeal via letter dated 19th August 2024 for variation of the CADP permission to allow a number of items including an increase in the permitted number of passengers to 9 million passengers per annum (the "S73 Permission). This was accompanied by a deed of variation of the CADP Section 106 Agreement. The S73 Permission has not yet been implemented.

Table 6: A summary of the planning conditions and legal obligations for LCY which are considered relevant for this airspace change proposal.

Reference	Item	Description
City Airport Development Programme (CADP)[15] CADP is a plan for developing LCY's infrastructure to meet the demands of increased passenger numbers and larger, next-generation aircraft. It is based on maximising the use of the existing runway, creating better facilities for passengers, and developing infrastructure to accommodate the permitted flight movements per year. The CADP permission accompanies the planning conditions and S106 obligations which control the operation of LCY. Many new schemes designed to mitigate the noise impact of aircraft operations have been introduced at LCY as a requirement of the CADP planning permission. The CADP items considered relevant to this ACP are described below.		
Condition 6	Noise Barrier Phasing	Includes requirements for noise barriers relating to the eastern stands, including temporary and permanent mitigation. As part of the CADP permission a new noise barrier has been installed to protect local residents from noise from the new CADP aircraft stands. This noise barrier covers the additional operational stands built as part of CADP. The space on the extended dock allows for a further four stands, which are not yet in use. The noise barrier will be extended further to cover these stands prior to their use.
Condition 17	Airport Take-Off and Land Times	The airport's approved operating hours are unchanged under CADP. The airport is permitted to operate flights between the following hours: 06.30 and 22.30 on weekdays; 06.30 and 13.00 on Saturdays; 12.30 and 22.30 on Sundays; 09.00 and 22.30 on Public or Bank Holidays; Full closure on 25th December.

[15] The CADP planning permission can be accessed from Newham Council's planning register using the reference 13/01228/FUL.

		There is a 24 hour period of closure from Saturday lunchtime to Sunday lunchtime. The final 30 minutes of operation on every day of the week is solely for flights scheduled earlier which have been unavoidably delayed.
Conditions 18-19	ANCS	CADP requires use of a noise management and monitoring scheme, the Aircraft Noise Categorisation Scheme (ANCS), which has been implemented at LCY since January 2018 and incentivises the use of quieter aircraft with limits and financial penalties established to achieve this objective. The ANCS 1) allows up to 111,000 actual movements each year; 2) restricts the noisiest aircraft types operating at the airport; 3) sets a noise quota controlling the amount of noise emitted on a weekly and annual basis. Under the ANCS, each aircraft type is assigned a separate quota count (QC) for arrivals and for departures, based on their certification noise levels and adapted for the 5.5 ° angle of approach. The quota count system is similar to that operated at many UK airports at night. The noise level that corresponds to each QC is measured in EPNdB and is assessed according to a standardised procedure set out by the International Civil Aviation Organisation (ICAO). The Noise levels are measured at three points, known as approach, sideline and flyover and take into account the impact of noise on communities further to the east and west of the airport under the flight paths, as well as those closest to the airport. Details of the total quota count for each year are included in the Airport's Annual Performance Report, and subject to regular review with the London Borough of Newham. The ANCS also includes noise certification processes and approvals for each aircraft which would operate at LCY. All aircraft arriving and departing from LCY are first categorised in accordance with the following noise level limits: Flyover: 88.0 EPNdB; Sideline: 93.5 EPNdB; Approach: 98.0 EPNdB[16]. The sum of the certification noise levels at each of the three positions must also be less than 271 EPNdB. Before any new aircraft type can be introduced at LCY, evidence of compliance with the ANCS must be submitted to, and approved, by the London Borough of Newham.
Conditions 23-26	Aircraft Movement Limits	As part of the planning permission granted by London Borough of Newham in July 2009 strict limits to the number of aircraft movements (hourly, daily and annually) at LCY were introduced. These have been retained within the CADP permission and include limits to: Saturday, Sunday and total weekend movements; weekday movements; Public or Bank Holiday movements and; movements during specific times of the day. In addition, as part of the CADP permission a new limit of 45 scheduled movements per hour has been introduced and the annual movement limit of 120,000 movements per year has reduced to 111,000 per year.
Condition 31	Noise Management and Mitigation Strategy (NOMMS)	NOMMS is a framework to provide a robust system of noise monitoring and mitigation. LCY is required to produce and review NOMMS in consultation with the London Borough of Newham every 5 years. NOMMS covers a wide range of measures and

[16] This relates to the specific noise certification level on approach given in the aircraft's noise certificate (which relates to an approach at 3 degrees) rather than the Arrival Level used for determining QC scores (which relates to an approach at 5.5 degrees.)

		procedures to monitor and manage the noise impact of LCY departure, arrival and ground-based operations including: • **Combined Noise and Flight Track Monitoring System (NFTMS);** LCY operates a system of noise monitors which measure: sideline noise, noise under the arrival and departure paths, aircraft related ground noise, and reverse thrust usage. The noise data from the NFTMS is used to validate the noise contours produced for the Sound Insulation Scheme and to monitor compliance with the contour area limit introduced as part of the CADP permission. It is also used for determining credit awards and penalties as part of the Incentives and Penalties Scheme and for categorisation purposes following the introduction of the ANCS. • **Quiet Operating Procedures;** LCY requires that every aircraft operator adopt procedures to produce the least noise disturbance. Where aircraft manufacturers have established special procedures for the purposes of reducing noise, these are required to be applied to operations at the airport, subject to the safe operation of aircraft. Quiet operating procedures at LCY also include minimising the use of reverse thrust; minimising the use of auxiliary power units and use of fixed electrical ground power where possible and; use of an Electronic Flight Progress Strips System (EFPS), which provides the ability to monitor the time that aircraft operate engines on the ground. • **Incentives and Penalties Scheme;** LCY runs a scheme of noise incentives and penalties based on departure noise levels, as measured by the noise monitoring system. These penalty limits are the most stringent of any UK airport for daytime operations. The scheme encourages airlines to operate aircraft more quietly by rewarding them with credits. Each year, the airline with the most credits co-partners with LCY to deliver the Community Projects Fund and community projects and charities from the local area can apply for funding for a specific project. Airlines which exceed upper noise limits are charged a fixed penalty, and the money from any penalties accrued is added to the Community Projects Fund. • **Control of Ground Noise;** Aircraft maintenance and repair work and ground running of engines is restricted to certain hours, and subject to a ground running noise limit of 60 dB LAeq,12h which is calculated based on the average daily noise level during the worst (noisiest) month of the year. • **Production of Annual Noise Contours;** Air noise contours are produced annually, based on the actual summer (16th June – 15th September inclusive) movements in the previous year and the forecast summer movements in the following year. • **Minimising the use of Reverse Thrust;** The use of reverse thrust is required to be kept to the minimum required for the necessary deceleration of the aircraft and within the limits of the airline's standard operating procedures. •**Operation of the Enhanced Sound Insulation Scheme;** As part of the CADP permission, LCY has upgraded its two tier scheme to an improved three tier scheme, offering sound insulation treatment to eligible residential properties within the 57dB LAeq,16h (Tier1) and 66dB LAeq,16h (Tier 2) and adding a third tier for properties within the 63dB LAeq,16h (Tier 3) noise contour. The sound insulation works involve the treatment of habitable rooms to upgrade eligible external windows and doors. The scheme also provides the option of acoustic ventilation in accordance with the sound insulation standards given in the Noise Insulation Regulations.
Condition 33	Fixing the Size of the Noise Contour	The CADP planning permission has introduced a limit on the area of the 57 dB LAeq,16h summer daytime contour of 9.1 km² to mitigate noise impacts and LCY is required, in their Noise Contour Strategy, to seek further reduction of the Noise

		Contour by 2030 and beyond. The noise contours are also used for determining eligibility under the Sound Insulation Scheme.
Condition 43	Passenger Numbers	The CADP planning permission allows 6.5 million passengers per annum.
Condition 48	Ground Engine Running Strategy	In order to protect the environmental amenity from noise impacts, CADP requires a Ground Engine Running Strategy, approved by the London Borough of Newham, to: • minimise engine usage while aircraft occupy stands; • minimise the duration of engine usage whilst taxiing; and • ensure the operators of aircraft at the airport comply with the approved strategy in order to mitigate as far as practicable the emissions from aircraft engines.
S106 Planning Agreement[17] is the planning obligation (legal agreement) with the local planning authority, the London Borough of Newham. It defines measures to manage the impact of LCY development on the local community and infrastructure. The S106 items considered relevant to this ACP are described below.		
Schedule 8	Noise Contours	Prescribes the requirement for LCY to publish noise contours in their Annual Performance Report. Noise contours are based on the actual summer (16th June – 15th September inclusive) movements in the previous year and the forecast summer movements in the following year.
Schedule 9	Noise Insulation Payments Scheme (NIPS)	Prescribes the requirement for LCY to report to the London Borough of Newham the developments in respect of which NIPS payments have been made. NIPS ensures that, subject to specific eligibility criteria, new residential developments within the 57dB or 66dB LAeq,16h noise contours will benefit from a noise insulation payment scheme that funds, during construction. any additional works anticipated as a result of the airport's development, over and above any pre-agreed planning conditions (or Building Regulations standards) with regard to external sound insulation.
Schedule 9	Sound Insultation Scheme (SIS)	Subsidises the cost of noise insulation for dwellings and public buildings in the most affected areas
Schedule 9	Neighbouring Authority Agreements	By entering into a Neighbouring Authority Agreement with LCY, councils are able to oversee and, if required, enforce the planning obligations relating to the airport's sound insulation scheme where it affects properties within their Borough. This includes ensuring residents proximate to the airport are provided with noise insulation subsidised by LCY. Tower Hamlets and Greenwich councils have entered into Neighbouring Authority Agreements with LCY to oversee and enforce the S106 agreement within their respective boroughs.
Schedule 12	Wake Turbulence	LCY is required to investigate any damage arising to buildings around the airport as a result of wake turbulence, and to provide compensation/ repair for any property damaged by wake vortex from aircraft using the airport. Additionally, this includes the requirement for LCY to undertake a Wake Turbulence Study within 12 months of the introduction of a new type of aircraft at the airport, at or in excess of 60,000kg MTOW (Maximum Take Off Weight), for approval by the London Borough of Newham.
Schedule 13	Air Transport Forum (ATF)	The ATF enables a longer-term approach to transport planning, with key stakeholders meeting twice per year in accordance with the requirements of the Section 106 agreement.

[17] The section 106 agreement can be accessed from Newham Council's planning register using the reference 13/01228/FUL.

		LCY has an Airport Surface Access Strategy 2017-2025 (ASAS), [Ref 11] prepared in conjunction with the ATF, which aims to facilitate sustainable surface transport for staff, passengers, and servicing vehicles including: • Improved information at the airport for onward connections via the DLR including a new Information Office in the Airport's DLR station (opened in November 2023) • A better transfer for passengers to Elizabeth Line services through clearer wayfinding • Provision of real time information at the LCY bus stand • Building the case for earlier running of DLR trains to the airport • More secure, covered cycle parking for passengers and staff •For staff, improved information and incentives to encourage more sustainable journeys to work under the banner of Way to Work
The S73 Permission: The changes to the CADP permission are detailed in this section. As mentioned earlier, the S73 permission has not yet been implemented however the additional operational and environmental controls will be relevant to the ACP in future.		
Condition 11	Aircraft Stand Location	Greater flexibility in the location of aircraft stands, but no changes to the over number of stands (25).
Conditions 22 and 23	Daily Limits	Increase in the number of flights permitted in the first half hour of operations (0630-0659) from 6 to 9.
Condition 37	Passenger Numbers	Uplift in passenger cap from 6.5mppa to 9mppa
S73 changes to the S106 Legal Agreement: In support of the S73 Permission, a generous mitigation package was added to the S106 legal agreement, which built upon the current legal agreement and altered the obligations as follows:		
Schedule 6	District Heating/Eastern Energy Centre	Revised Energy Strategy to move away from gas fired CHP (previously consented as part of the CADP works) to more sustainable solutions such as heat pumps and solar.
Schedule 9	Enhanced Sound Insulation Scheme	Phasing in of an extension of the summer daytime threshold for the Intermediate Tier from the currently required 63 dB LAeq,16h. The eligibility threshold will be lowered to 62 dB LAeq,16h from 2027, 61 dB LAeq,16h from 2029 and 60 dB LAeq,16h from 2031.
Schedule 21	Sustainable Transport Fund	Payment of >£2m/pa for 7 years support reasonable endeavours to achieve an increase in the percentage of passenger journeys to and from the Airport being undertaken by sustainable modes of transport to 80% by 2030.
Schedule 22	Carbon and Climate Change Action Plan	Secure measures which aim to deliver the Airport's targets to become London's first net zero airport by 2030 and be one of the first airports in the UK to facilitate zero emissions flight.
London City Airport Noise Action Plan [Ref 12]. In accordance with the Environment Noise (England) Regulations 2006, LCY has a prescribed Noise Action Plan (NAP) for the period of 2024-28. This plan outlines extensive commitments to monitor, manage and reduce aircraft noise impacts. Although not specifically prescribed by the S106 or extant planning consent for the airport, the NAP is referenced as another key plan to control noise at the airport and accordingly has been referenced.		
London City Airport Ground Engine Running Strategy [Ref 13]. The Ground Engine Running Strategy relates to the use of aircraft engines from the time of engine startup, through any taxiing and holding, to departure. Likewise, it relates to the use of aircraft engines from the time that an aircraft has reduced to taxiing speed on the runway or when an aircraft has exited the runway, to the time when an aircraft switches off its engines on stand. New aircraft operating at the airport are required to operate within the parameters of the Ground Engine Running Strategy (Taxi Time on Departure, Taxi Time on Arrival, Engine Run on Stand Time).		
London City Airport Noise Contour Strategy [Ref 14]. The Noise Contour Strategy defines the methods used by LCY to reduce the size of the noise contour by the year 2030. Specifically, the report details the noise mitigation management		

measures which are proposed (including those embedded within other acoustic strategies such as the Noise Action Plan), and details the anticipated outcomes of noise mitigation on the airport noise contour.

Specific measures contained in the Noise Contour Strategy include the following:

-Limitations on the amount of activity at the airport;

-Details on aircraft type based measures, including the ANCS, as well as landing fee structures which favour new generation aircraft;

-Quiet operation procedures as per the NOMMS;

-Details of the noise contour methodology; and

-Excerpts of the approved Noise Action Plan.

The Noise Contour Strategy is next due to be updated in 2027.

10. Appendix B: Engagement Details

10.1 Stakeholder Identification

10.1.1 At this early stage of the CAP1616 process, the potential impacts of the airspace change proposal are understood at an approximate level only. In Stage 2 (Develop & Assess) we will identify and develop viable design options, and the proposed flight paths will be used to identify impacts more accurately.

10.1.2 As such, for Stage 1, we have primarily focused our engagement at the representative level, including those groups regularly associated with LCY, in order to help develop the design principles.

10.1.3 Operational subject matter experts (SMEs) have worked alongside LCY's Media and Communications team and the Airport Planning team to identify stakeholders from the following categories who are likely to be impacted (directly impacted, indirectly impacted and potentially impacted), or who may be required to provide support or access to specific audiences, or other interested parties:

- local aviation stakeholders, including airspace users, airline operators, air navigation service providers and airports
- members of London City Airport's consultative committee
- members of the National Air Traffic Management Advisory Committee (NATMAC)
- aviation/non-aviation national organisations, including those which represent areas/interests likely to be affected by potential impacts
- representative organisations for Air Quality Management Areas (AQMA), National Parks, Areas of Outstanding Natural Beauty (AONB), National Scenic Areas (NSA), designated Quiet Areas and European sites
- elected representatives and/or groups representing communities likely to be affected by potential impacts (such as noise) associated with the airspace change

10.1.4 Additionally, we have targeted community stakeholders proximate to the approach path that may be impacted including local businesses, property developers and noise sensitive buildings (such as nurseries, schools hospitals etc.).

10.1.5 To address the unique requirements of stakeholders at this stage of the process, we have reviewed the draft DPs with regard to the qualities of the airspace change that we anticipate are of main concern to our stakeholders, and created Bespoke DPs for those aspects considered to be the most important: 'Local context and circumstances' (B_DP04), 'Economics' (B_DP08) and 'Environment' (B_DP10). In addition, we have differentiated the engagement workshops into two broad stakeholder groups with a first workshop for 'aviation stakeholders' and a second workshop for 'non-aviation stakeholders'. We have also included a third workshop for any stakeholder unable to make the first two dates. Although the information presented in all three workshops was the same, we considered the Qs & As would be more effective by grouping stakeholders based on their interests in the change, i.e. aviation or non-aviation related.

10.2 Stakeholder Contact Database

10.2.1 Stakeholders were invited to the online workshops by email unless otherwise stated.

Stakeholder	Position
Councillors	
Newham	Mayor
Bexley	Thamesmead East Ward Councillor
Greenwich	Mottingham, Coldharbour and New Eltham Ward Councillors
Redbridge	Cabinet Member for Environment and Sustainability Mayor
Walthamstow	Deputy Leader and Cabinet Member for Climate and Air Quality
Southwark	Dulwich Wood Ward Councillor Cabinet Member for Clean Air, Streets and Waste
Greater London Assembly	
Labour	Mayor of London Assembly Member Deputy Mayor Environment and Energy
Green Party	Assembly Member
UK Parliament	
Member of Parliament	East Ham
Member of Parliament	Dulwich and West Norwood
Member of Parliament	Lewisham West and Penge
Member of Parliament	Eltham and Chislehurst
Member of Parliament	Ilford North
Member of Parliament	Greenwich and Woolwich
Member of Parliament	Leyton and Wanstead
Member	House of Lords
Member	House of Lords
Secretary of State	Secretary of State for Transport
Local Authorities/Government	
London Borough of Newham	Principal Aviation Officer Director of Planning Chief Executive Officer
London Borough of Tower Hamlets	Chief Executive Officer Environmental Protection Team Leader
Royal Borough of Greenwich	Chief Executive Officer
London Borough of Waltham Forest	Assistant Director Development Management and Building Control
London Borough of Bexley	Deputy Director Housing and Strategic Planning
London Borough of Southwark	Director of Planning and Growth
London Borough of Redbridge	Director of Planning and Building
London Borough of Hackney	Head of Planning and Building Control
London Borough of Lewisham	Director of Planning
London Borough of Barking and Dagenham	Head of Planning Decisions and Assurance
London Borough of Havering	Director of Planning and Public Protection
Westminster City Council	Executive Director for Growth, Planning and Housing
Greater London Authority	Head of Development and Place - Royal Docks Team Community Relations Manager
Transport for London	Aviation Strategy Lead
City of London Corporation	Planning and Development Director
Interest Groups/Parties	
HACAN East	Chair
London City Airport Consultative Committee (LCYCC)	Chair

RSPB Rainham Marshes	
Royal Docks Management Authority	Managing Director
K L Grant Consulting Limited	Director
Swanson Aviation Consultancy	Director
Thames River Trust	Chief Executive Officer
Forest Hill Society	
Airlines	
Helvetic	Chief Executive Officer
Lufthansa[18]	Procurement Lead
BA Cityflier	General Manager
KLM Cityhopper	Chief Executive Officer
Swiss	Procurement Lead
Luxair	Chief Commercial Officer
ITA	UK General Manager
Loganair	Chief Executive Officer
Aurigny	Chief Executive Officer
EasyJet	Strategy, Network & Fleet Director
Finnair	Head of Network
LOT	Network planner
KM Malta	Head of Network
Jet Centre	
NetJets EU	President
NetJets	Pilot in Command – Global 6000
Globe Air	Chief Executive Officer
Shell Aircraft Ltd	President
VistaJet GmbH	Founder and Chairman
Aerowest	Chief Executive Officer
CAT Aviation	Chief Executive Officer
Saxon Air Charter	Chief Executive Officer
AirGo	Chief Executive Officer
Air Alsie	Chief Executive Officer
Pad Aviation	Chief Executive Officer
Starjet Aviation	Chief Executive Officer
Dassault Aviation	Director of Operations
Gulf Steam Aerospace	Senior International Sales Engineering Specialist
Neighbouring Airports	
Southend	Chief Executive Officer
Gatwick	Chief Planning Officer
Heathrow	Director of Operations
Biggin Hill	Head of Estates
Industry Groups and Businesses	
BusinessLDN	Chief Executive
Canary Wharf Group	Chief Executive Officer
LCCI	Chief Executive
ExCel	Chief Executive
London Chamber	Head of Partnerships
LendLease	Development Director – Silvertown Silvertown Project Director

[18] Air Dolomiti operate only for Lufthansa and communication is limited to Lufthansa.

Embraer	Chief Commercial Officer
Airbus	Regulatory & External Engagement (GR)
DLR	Service Delivery Director
Tate & Lyle	Managing Director Head of Property and Local Affairs
Ballymore	Group Managing Director Chief Planner
ABP Development	Managing Director
Albert Island	Project Lead for London Regional
University of East London	President
NATMAC	
Airlines UK	
AirportsUK	
Airfield Operators Group (AOG)	
Airfield Operators Group (AOG)	
Aircraft Owners and Pilots Association (AOPA)	
Airspace Change Organising Group (ACOG)	
Association of Remotely Piloted Aircraft Systems UK (ARPAS UK)	
Aviation Environment Federation (AEF)	
British Airways (BA)	
BAe Systems	
British Airline Pilots Association (BALPA)	
British Balloon and Airship Club	
British Business and General Aviation Association (BBGA)	
British Gliding Association (BGA)	
British Helicopter Association (BHA)	
British Hang Gliding and Paragliding Association (BHPA)	
British Microlight Aircraft Association (BMAA)	
British Skydiving	
Drone Major	
General Aviation Alliance (GAA)	
Guild of Air Traffic Control Officers (GATCO)	
Honourable Company of Air Pilots (HCAP)	
Helicopter Club of Great Britain (HCGB)	
Isle of Man CAA	
Light Aircraft Association (LAA)	
Low Fare Airlines	
Military Aviation Authority (MAA)	
MoD - Defence Airspace and Air Traffic Management (MoD DAATM)	
NATS	
Navy Command HQ	
PPL/IR (Europe)	
UK Airprox Board (UKAB)	
UK Flight Safety Committee (UKFSC)	
Potential Noise Affected Buildings	
Alphabet House Nursery E16 2FW	

Little Limehouse Pre-School E14 7EY	
Bright Horizons East India Dock Nursery E14 2ED	
Rising Stars Childcare SE28 8PF	
Lanterns Arts & Educational Nursery E14 9XP	
Little St Matthias Pre School E14 0AE	
Fabulous Tots Nursery SE28 8BG	
Magic Roundabout Nurseries E14 9YQ	
Moksliukas E16 1LN	
NurtureVille Nursery E16 2LH	
Tiny Town Daycare E16 1TU	
Goldensparks Nursery E16 1XE	
Nest Royal Wharf E16 2TF	
Rise N Shine Nursery E14 9TS	
Puddle Jumpers Nursery E14 8HH	
Docklands Village Nursery E14 9AA	
New Birth Day Nursery E16 2DE	
Little Jems SE28 8EY	
KidsLab Day Nursery and Preschool E14 9TS	
Nurture House Montessori SE28 8AS	
Garden Nursery and Preschool E16 2RD	
Faraday School E14 0FH	
River House Montessori School E14 9XP	
New Directions E16 2LS	
Bishop John Robinson Church of England Primary School SE28 8LW	
Britannia Village Primary School E16 2AW	
Castilion Primary School SE28 8QA	
Cyril Jackson Primary School E14 8HH	
Discovery Primary School SE28 0JN	
Drew Primary School E16 2DP	
Hawksmoor School SE28 8AS	
Jubilee Primary School SE28 8JB	
Lansbury Lawrence Primary School E14 6DZ	
Culloden Primary - A Paradigm Academy E14 0PT	
Linton Mead Primary School SE28 8DT	[no email address – engagement letter sent by post]
Mayflower Primary School E14 6DU	[no email address – engagement letter sent by post]
Our Lady and St Joseph Catholic Primary School E14 0DE	
Royal Wharf Primary School E16 2ZA	
St Joachim's Catholic Primary School E16 3DT	
St Margaret Clitherow Catholic Primary School SE28 8GB	
Windrush Primary School SE28 8AR	
Woolmore Primary School E14 0EW	
Oasis Academy Silvertown E16 2TX	
Royal Docks Academy E16 3HS	
Woolwich Polytechnic school for Girls SE28 8RF	
Harris Garrard Academy DA18 4DW	[no email address – engagement letter sent by post]
London Design and Engineering UTC E16 2RD	
Richard House Children's Hospice E16 3RG	

10.3 Engagement Methodology

Overview

10.3.1 This section summarises the stakeholder engagement activities conducted during Stage 1. Copies of the correspondence with our stakeholders have been shared with the CAA so that they can make sure our engagement was effective.

10.3.2 Due to the quantity of key stakeholders identified for this airspace change, see section 10.2, and the broad spectrum of stakeholder groups, we chose to use a structured engagement and targeted information gathering approach[19], with online workshops involving presentations and structured questions/answers, followed by an online questionnaire, focussed on providing DP feedback or suggestions.

10.3.3 In addition, to facilitate meaningful engagement we have directly contacted those stakeholders who provided DP feedback or suggestions, to ensure that stakeholder concerns have been properly understood and accounted for at this stage of the airspace change process.

Process

10.3.4 We contacted our key stakeholders to involve them in a series of online workshops for the development of our design principles. However, not all stakeholders responded and, of those who responded, not all have attended the workshops.

10.3.5 The workshops were set up to explain the proposed airspace change, the CAP1616 process, and the concept of design principles, and followed this format (this is the "we asked…" element of the typical cycle "we asked, you said, we did"):

- what we're doing, including the scope and objectives of this airspace change and today's situation
- why the airport is seeking to make this change, including constraints of the current environment and available opportunities
- the benefits of making the change, including impacts on the local community and LCY customers
- the airspace change CAP1616 process, the identification and role of stakeholders, and the purpose of design principles
- the airspace change timeline and where we are in the process
- the draft design principles that we are seeking feedback on, including justification for the proposed wording and priorities.
- a copy of the presentation was uploaded to the LCY website and sent out afterwards to attendees, alongside a link to the DP feedback questionnaire
- additional emails/calls to answer questions and provide clarifications, as required
- additional emails/calls to follow up on DP feedback, as required

10.3.6 The online workshops were undertaken using remote communications (Microsoft TEAMS) with a Q&A chat set up to allow attendees to post questions during the session. Presenters posted and replied to questions during the sessions, and all

[19] Stakeholder feedback from this early stage of the process will help to identify those stakeholders with a 'high-interest' in this airspace change proposal, informing more collaborative and dynamic two-way shared engagement activities during Stage 2 (Develop & Assess) of the CAP1616 process as we identify and develop viable design options.

questions along with corresponding answers were uploaded to the LCY airspace change webpage.

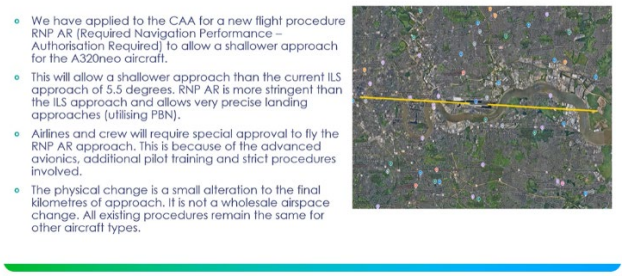
10.3.7 All stakeholders who responded to our engagement invites were provided with links to the LCY airspace change webpage and encouraged to view the presentation and the Q&As, and to share their feedback on the draft DPs via a questionnaire on the website.

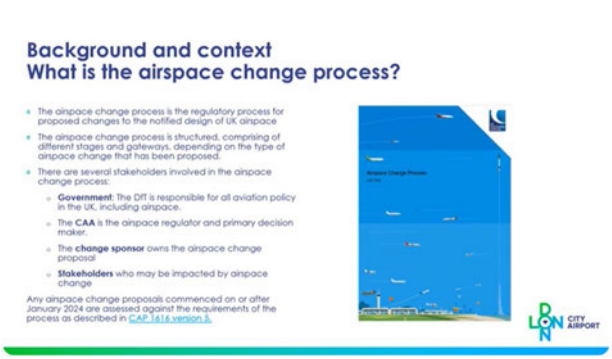
10.3.8 On the questionnaire, stakeholders were asked whether they agreed with 1) the wording and 2) the priority for each DP in turn. Stakeholders were also invited to identify any additional design principles, including a priority level, that they would like to see included for this airspace change.

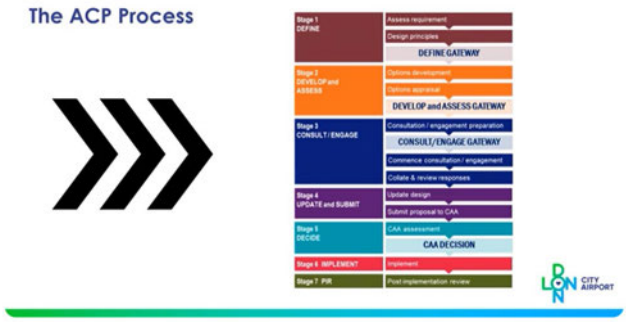
10.3.9 Further contact was made with those individuals who provided responses to facilitate agreement on the wording and priority of the DPs that they had responded to.

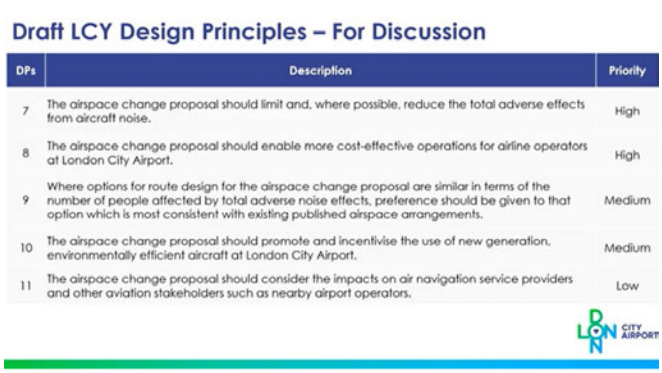
Design principles online workshop presentation pack

10.3.10 The slides presented in the workshops are presented below. They were used to describe the background behind design principles and provide the draft DP list, which was used to provoke questions, discussion and feedback.









10.4 DP Feedback Questionnaire

10.4.1 The DP feedback questionnaire questions are listed in Table 7 below.

Table 7: DP feedback questionnaire

1.	What is your name?
2.	Who do you represent?
3.	What is your email address?
4.	Do you have any feedback on the wording of priority of DP1, DP2 or DP3 'Mandatory Design Principles?
5.	Do you have any feedback on the wording of DP4? We consider the priority of this DP to be high. Do you agree with this priority? Please provide your reasoning.
6.	Do you have any feedback on the wording of DP5? We consider the priority of this DP to be high. Do you agree with this priority? Please provide your reasoning.
7.	Do you have any feedback on the wording of DP6? We consider the priority of this DP to be high. Do you agree with this priority? Please provide your reasoning.
8.	Do you have any feedback on the wording of DP7? We consider the priority of this DP to be high. Do you agree with this priority?

	Please provide your reasoning.
9.	Do you have any feedback on the wording of DP8? We consider the priority of this DP to be high. Do you agree with this priority? Please provide your reasoning.
10.	Do you have any feedback on the wording of DP9? We consider the priority of this DP to be medium. Do you agree with this priority? Please provide your reasoning.
11.	Do you have any feedback on the wording of DP10? We consider the priority of this DP to be medium. Do you agree with this priority? Please provide your reasoning.
12.	Do you have any feedback on the wording of DP11? We consider the priority of this DP to be low. Do you agree with this priority? Please provide your reasoning.
13.	Are there any additional Design Principles you would like to see included for this airspace change proposal? Please provide your rationale and a priority (High, Medium, Low)

10.5 Engagement timeline

10.5.1 Table 8 provides a chronology of the Stage 1 engagement activities. During the draft DP response period, we received a request from a stakeholder for a two-week extension in order to provide responses. Due to the Stage 1 gateway submission timescales, we were unable to accommodate a two-week extension, but provided a one-week extension and notified all stakeholders of the extended response period.

10.5.2 Throughout Stage 1, two-way communication has been maintained between LCY and its stakeholders. The various emails and telephone conversations are not detailed here, but have been provided as evidence directly to the CAA.

Date/2025	**Activity**
6th March	London City Airport Consultative Committee (LCYCC) meeting
20th March	Online workshop invites sent
27th March	Online workshop reminder sent
31st March	Online workshop final reminder sent
22nd March – 3rd April	Online workshop TEAMs links sent
1st April	Online workshop registration deadline
1st – 2nd April	Additional joining instructions sent
2nd April	Online workshop 1 (aviation stakeholders)
3rd April	Online workshop 2 (non-aviation stakeholders)
4th April	Online workshop 3 (all)
2nd – 4th April	Post workshop emails sent including thank-you + link to recorded presentation and draft DP feedback questionnaire
2nd April - 25th April	Draft DP response period
17th April	Q&As posted to website
22nd April	Draft DP feedback reminder email sent including link to recorded presentation and draft DP feedback questionnaire + Q&A link + notification of 1 week response period extension
25th April - 2nd May	Draft DP response period, 1 week extension
2nd May	End of Stage 1 engagement
22nd April - 9th May	Follow-up communications to facilitate agreement on DP wording/priority with respondents

Table 8: Chronology of the Stage 1 engagement activities.

11. Appendix C: Airspace Modernisation Strategy Alignment

11.1.1 Table 9 demonstrates how this ACP, and the DPs, align with the strategic objectives of the CAA's Airspace Modernisation Strategy (AMS) CAP1711 [Ref 15].

Table 9: ACP and DP alignment with the strategic objectives of the AMS.

AMS Strategic Objectives	Alignment
Maintaining and, where possible, improving the UK's high levels of aviation safety	LCY supports the prioritisation and continuous improvement of aviation safety, including the introduction of new aviation technologies, such as RNP AR, to help manage residual operational risk. RNP AR procedures provide improved access to airports in challenging terrain environments like LCY; the lateral and vertical navigation (VNAV) capabilities provided by RNP AR equipped aircraft provide improvements in operational safety and reduces the risk of Controlled Flight Into Terrain (CFIT). DPs: M_DP01, D_DP05
Integration of diverse users – including needs of defence and security	This ACP considers new LCY approach procedures that remove the current steep approach certifications associated with operating on a 5.5° glideslope. This would open the airport to more modern and efficient aircraft operations, increasing the range of operators and aircraft types that can operate at LCY, whilst accommodating our existing commercial and private transport users on extant procedures. DPs: B_DP10
Simplification – reducing complexity and improving efficiency	Aircraft performance and navigation capabilities have changed significantly since the first introduction of ILS procedures at LCY. Through the introduction of RNP AR approaches, this ACP seeks to better utilise the performance capabilities of modern aircraft, using performance-based navigation to provide more efficient and accessible approach routes. RNP AR procedures would increase accessibility for a wider range of modern aircraft, enabling new operators to fly from LCY to a greater range of destinations than previously, and incentivise existing airline operators at LCY to accelerate their refleeting to take advantage of more modern aircraft with greater capacity, lower seat costs and increased yields than would otherwise be available at LCY. Thus, this will enable the airport to accommodate new demand and provides benefit to airspace users, improving choice and value for money for consumers. DPs: M_DP02, D_DP05, B_DP10
Environmental sustainability – an overarching principle applied through all modernisation activities, in accordance with the Government's environmental objectives	In accordance with the Government's key environmental objectives with respect to air navigation, as set out in the Government's Air Navigation Guidance [Ref 16], this ACP seeks to minimise the environmental impact of aviation by limiting and, where possible, reducing the number of people significantly affected by adverse impacts from aircraft noise. Where options for route design for the airspace change proposal are similar in terms of the number of people affected by total adverse noise effects, preference will be given to that option which is most consistent with existing published airspace arrangements. In addition, the arrival procedures at LCY do not currently utilise, to the fullest extent, the modern technologies available from modern aircraft. The introduction of RNP AR approaches at the airport supports the reduction in aviation's environmental impacts, by incentivising existing airline operators at LCY to accelerate their refleeting to take advantage of 'cleaner', 'quieter', modern aircraft. DPs: M_DP03, D_DP07, D_DP09, B_DP10

12. Appendix D: Acronyms

12.1.1 An acronym table is provide below.

ACP	Airspace Change Proposal
AIP	Aeronautical Information Publication
AMS	Airspace Modernisation Strategy
ANCS	Aircraft Noise Categorisation Scheme
AONB	Areas of Outstanding Natural Beauty
AQMA	Air Quality Management Area
AR	Authorisation Required
ASAS	Airport Surface Access Strategy
ATF	Air Transport Forum
CAA	Civil Aviation Authority
CADP	City Airport Development Programme
CCCAP	Carbon and Climate Change Action Plan
CFIT	Controlled Flight Into Terrain
CHP	Combined Heat and Power
DP	Design Principle
EFPS	Electronic Flight Progress Strips System
EGLC	London City Airport
FASI	Future Airspace Strategy Implementation
ICAO	International Civil Aviation Organisation
ILS	Instrument Landing System
LAMP	London Airspace Management Programme
LCY	London City Airport
LCYCC	London City Airport Consultative Committee
LTO	Landing and Take-Off cycle
MP	Member of Parliament
NAP	Noise Action Plan
NATMAC	National Air Traffic Management Advisory Committee
NFTMS	Noise and Flight Track Monitoring System
NIPS	Noise Insulation Payments Scheme
NOMMS	Noise Management and Mitigation Strategy
NSA	National Scenic Areas
PSCZ	Public Safety Controlled Zone
PSRZ	Public Safety Restricted Zone
PSZ	Public Safety Zone
QC	Quota Count
RNAV	Area Navigation
RNP	Required Navigation Performance
SAC	Special Areas of Conservation
SINC	Site of Importance for Nature Conservation
SME	Subject Matter Experts
SoN	Statement of Need
SPA	Special Protection Area