Introduction of RNP-AR Procedures at EGLC

Stage 4 Airspace Change Proposal

ACP-2025-003

Issue 1.0

Table of Contents

Change History

Issue	Month/Year	Changes this issue (most recent first)
Issue 1.0	07/26	Issue 1.0 submitted and published

Referenced Documents throughout this ACP, from Stage 1 to Stage 4

Ref No	Name and description	Links
1.	CAP1616 Edition 5.1	Link
2.	Statement of Need	Link
3.	Introduction of RNP-AR Procedures at EGLC Airspace Change Portal Page	Link
4.	CAP1616i: Environmental Assessment Requirements and Guidance for Airspace Change Proposals, 2023	Link
5.	Assessment Meeting Minutes	Link
6.	Stage 1 Define	Link
7.	UK Aeronautical Information Publication, July 2025	Link
8.	CAA Publication: Steep Approach Approval Compliance Statement and Checklist	Link
9.	London Airspace Management Programme (LAMP) Deployment 2 airspace change portal page	Link
10.	LCY Stage 2 Engagement Workshops Slides	Link
11.	London City Airport Annual Performance Report 2024	Link
12.	London City Airport Annual Performance Report 2024, Annexes	Link
13.	CADP1 S73 Application Environmental Statement	Link
14.	UK Government Air Quality Statistics	Link
15.	CADP1 Air Quality Management Strategy	Link
16.	Above and Beyond: Our roadmap to a sustainable future	Link
17.	CAP1616f: Guidance on Airspace Change Process for Permanent Airspace Change Proposals, 2025 (v1.1)	Link
18.	Stage 1 Timeline Agreement	Link
19.	CAP1498 Definition of Overflight, Edition 2	Link
20.	CAA Policy on Minimum Standards for Noise Modelling	Link
21.	ICAO Aircraft Engine Emissions Databank	Link
22.	Datasheets (06/2025)	Link
23.	Airspace Modernisation Strategy 2030-2040 Part 1: Strategic objectives and enablers, CAP1711, 2024	Link
24.	Airport Surface Access Strategy 2017-2025	Link
25.	Air Navigation Guidance 2017	Link

List of Stage 3 consultation materials supporting this ACP, with links:

Consultation Strategy v1.0 36 pages
Consultation Document v1.1 46 pages
Full Options Appraisal v1.0 48 pages
FAQs document Week 8 6 pages
Consultation Response v1.0 74 pages

List of Stage 3 technical options appraisal reports supporting this proposal, with links:

Annex A Airspace change forecasts and methodology 12 pages
Annex B Cost-benefit analysis inc. passenger surface access time savings 23 pages
Annex C Aircraft noise assessment 89 pages
Annex D Air quality assessment 73 pages
Annex E Greenhouse gas emissions and fuel burn assessment 10 pages

1. Introduction

1.1 Background

1.1.1 This document forms part of the set required in accordance with the requirements of the UK Civil Aviation Authority (CAA) CAP1616 Airspace Change Process and its guidance document CAP1616f (Refs 1 and 17 respectively).

1.1.2 It aims to provide evidence to satisfy Stage 4, Airspace Change Proposal (ACP), and is assessed by the CAA to be a Level 1 ACP.

1.1.3 The change sponsor is London City Airport (LCY), also known as EGLC.

2. Executive Summary

2.1 Driver for change

2.1.1 London City Airport has a steep final approach to both runways compared with other British airports. This 5.5° approach works very well, but constrains the types of aircraft able to operate here. Most British airports use 3° to 3.5°.

2.1.2 This airspace change would add a new final approach descent angle of 4.49°, which is shallower by 1.01°, to each runway.

2.1.3 Doing this will encourage a quicker transition to new generation, efficient, larger capacity aircraft such as the Airbus A320neo.

2.2 Statement of need

2.2.1 **Objective:**
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 London City Airport (EGLC). This will be achieved while preserving the existing ground-based instrument approach procedures and approach angles used by the current fleet.

2.2.2 **Opportunity to address:**
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.

2.2.3 **Current airspace design:**
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.

2.2.4 **Current air traffic situation:**
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 79,000 ATMs 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.

2.3 Aim of this proposal

2.3.1 The aim of this proposal is to allow an accelerated path to our 9 million passengers per annum (9mppa) limit while simultaneously accelerating the take-up of more modern aircraft types such as the A320neo with higher passenger capacity, while slowing the forecast growth in flight numbers, and reducing overall noise/greenhouse gas impacts compared with doing nothing.

2.3.2 The method would be by the design and introduction of a shallower final approach angle for both runways, to accommodate aircraft types such as the A320neo which cannot be certified to fly our current steep approach. This final approach would be designed using the RNP-AR navigation specification.

2.4 Assumptions and constraints

2.4.1 This airspace change would not change where aircraft fly laterally, either arriving at, or departing from, London City Airport. It would only change the aircraft types able to use LCY, the "fleet mix", as the airport's traffic continues to grow.

2.4.2 We forecast the Airbus A320neo to be the main user of these additional shallower instrument flight procedures (IFPs), and this ACP is built around that assumption. Other aircraft types may be able to use the shallower IFP in future, subject to meeting strict environmental and safety standards, demonstrating that the benefits of this additional procedures will still be realised.

2.4.3 The A320neo aircraft type is capable of flying at a non-standard approach angle of up to 4.5° and no steeper.

2.5 Summary Description: Current Airspace & Operation

2.5.1 Currently, arrivals at either of LCY's runways follow an RNAV1 transition to join an ILS with a 5.5° final approach glideslope, which requires aircraft to have steep-approach certification. This limits the types of aircraft capable of using LCY.

2.6 Summary Description: Changes to Airspace Design& Operation

2.6.1 Authorised flights (the minority) would fly a 4.49° final approach angle, meaning they would start descent earlier, and would be slightly lower along final approach, converging on the same landing point.

2.6.2 The other operational change would be the fleet mix caused by the new aircraft type. Over time, fewer flights (of greater passenger capacity) would occur compared with doing nothing (more flights, smaller capacity even with a modernised fleet). Even at our maximum forecast, fewer than half of our arrivals would follow the shallower approach.

2.6.3 Departure routes would not change (known as SIDs) but they would now be flown by the different fleet mix. The same typical climb altitudes would be achieved, over the same locations.

2.7 Summary of options analysis

2.7.1 At Stage 2 we considered various angles below the A320neo's maximum 4.5°, before deciding on 4.49° for Stage 3's consultation, for approaches to both runways.

2.7.2 We chose a single 4.49° airspace design option for the following reasons:

- It would keep the authorised aircraft as high as possible for as long as possible (minimising overall impacts), while slightly undercutting the maximum technical gradient achievable by the A320neo
- A common approach angle at both ends is the simplest solution

2.7.3 We also considered offsetting the Runway 09 arrival route slightly, 500m east or 500m west. We did not do so because:

- Neither offset would cause significant noise benefits (the maximum distances considered would preclude a noticeable change under the route, and most flights would still use the unchanging route)
- The western offset would erode safety compared with descending Heathrow traffic

2.8 Summary of Engagement and Consultation

2.8.1 A comprehensive consultation exercise was held from Monday 2nd March to Sunday 17th May 2026 inclusive, a period of eleven weeks (see Stage 3 Consultation Strategy and Consultation Response.) We consulted on a single design option for the reasons stated in paragraph 2.7.2 above.

2.8.2 We received 386 responses which were analysed[1], themed and categorised. Three themes were categorised as "may impact the final proposal" and eight responses contained these three themes:

2.8.3 **Property development technical:** Feedback from planning experts had the potential to influence how certain Instrument Flight Procedure (IFP) technical design parameters were defined and/or calculated, without materially affecting the information and data provided in the consultation. We concluded that the information received would not change IFP design nor the Final Options Appraisal (which remains as per the Full Options Appraisal), as each planned building (obstacle) is completely individual, and would need to be studied in accordance with standard IFP and safeguarding requirements. However, we commit to work with property developers and planning experts in order to ensure

[1] A single additional response was handed in to our reception seven weeks after the consultation had closed, while the Consultation Response document was already with the CAA for review. This individual response was handled and published separately as an Addendum. This response's contents would not have influenced the final design.

appropriate safeguarding is carried out against current, planned, and future obstacles.

2.8.4 This theme did not impact the final airspace design nor the Final Options Appraisal (which remains as per the Full Options Appraisal), however it will ensure we continue to work with interested organisations. The seven responses relating to this theme were numbered 910809810/ANON-PDSM-GEZR-C, 866545303/ANON-A2KB-Z7GB-T, 727559363/ANON-8W2Q-2GMA-S, 572146741/ANON-HWDS-2GYH-G, 473150516/ANON-FG9M-D7GQ-6, 173787903/ANON-RE12-YAH8-M and 822310018/ANON-Q6AJ-K7GT-F. Two other responses under this theme were described in the Stage 3 Consultation Response Document; they had different circumstances, would not impact the final design, and were not brought forward to this ACP document.

2.8.5 **Aviation: use of other aircraft types:** We already provided information on how other aircraft types might be considered to operate, in the Consultation Document Section 10 Appendix B. In summary (extracted from Appendix B):

10.2.2 If any such proposal were to come forward, it would need to demonstrate, to LCY's satisfaction, that the aircraft type would:

- Not produce environmental impacts materially greater than those in the ACP's "with change" scenario;
- In any event, demonstrate environmental impacts that are better than the "without change" scenario;
- Not breach the any of the airport's planning permission conditions, and
- Not compromise the airport's environmental targets, including the requirement to achieve a noise contour of 7.2km².

10.2.3 In addition to these airport specific requirements, there are also requirements for RNP-AR certification by the operator's state regulator which includes a safety case, flyability study and specific crew training.

2.8.6 Appendix B goes on to say:

10.3.1 For any future aircraft type to be accepted for RNP-AR procedure, LCY will require of the requesting party:

- A complete aircraft-specific environmental assessment;
- Forecasts showing general adherence to the "with change" scenario assumptions; and
- Evidence showing no significant or perceptible environmental impacts beyond those already evaluated.

10.3.3 Only if these conditions are satisfied would LCY consider supporting the use of the RNP-AR procedure by an alternative type.

2.8.7 We considered if this feedback would change that planned method, and concluded it would not. It also would not change our fleet mix assumptions for the Final Options Appraisal (which remain as per the Full Options Appraisal, see subsection 9.1 on p.22).

2.8.8 This theme did not impact the final airspace design nor the Final Options Appraisal fleet mix assumptions, however it will ensure we continue to work with interested organisations. The response number relating to this theme was 315880238/ANON-BW6J-F1CB-N.

2.8.9 **Aviation: preference for RNP value:** This is a very technical item. An airline stated a preference of RNP-AR 0.3 over a lower value. We considered this, and

concluded that the design would automatically include approach minima for RNP-AR 0.3.

2.8.10 This theme did not directly impact the final airspace design (nor the Final Options Appraisal, which remains as per the Full Options Appraisal) as their preference was already accommodated, however in addition we decided we would publish approach minima for RNP-AR 0.12 as well as RNP-AR 0.3. The response number relating to this theme was 315880238/ANON-BW6J-F1CB-N.

2.8.11 None of the above caused changes to the final airspace design. The assumptions and methodologies used in the Full Options Appraisal would not change due to these feedback themes, therefore the Final Options Appraisal and Full Options Appraisal are the same. No further consultation was therefore required.

2.8.12 See Stage 3 Consultation Response document Section 5 for the list of specific responses covered in this subsection.

2.9 Summary of anticipated impacts

2.9.1 The addition of larger new-generation aircraft to the fleet mix means fewer flights are needed to carry the same number, or more, passengers (compared with our growth without this change). We can move faster towards our planning limit of 9mppa, increasing the business and leisure opportunities for the city and benefitting economic growth.

2.9.2 At the same time, this long-term reduction in flights compared with doing nothing would mean almost 112,000 people would experience reduced daytime noise, and more than 10,000 would experience reduced early-morning noise (i.e. 0630-0700)[2] compared with doing nothing. In almost all cases, the overflight noise differences between the A320neo and the other types using LCY would not be noticeable[3].

2.9.3 The addition of more new-generation aircraft to our fleet would save over 18,000 tonnes of carbon dioxide equivalent[4] compared with doing nothing over the long term. Aircraft-related air quality in the region would also not be changed by this proposal[5], nor would tranquillity or biodiversity[6] impacts.

2.9.4 The change in fleet with the anticipated growth in airlines and destinations, would make LCY more attractive to passengers in our catchment, who would save time travelling to LCY instead of to other London airports. The total economic benefit for this airspace change is expected to be between £38.4m and £97.4m net present value.

2.9.5 This proposal aligns with the strategic objectives of the UK Government's Airspace Modernisation Strategy (AMS) as originally detailed in the Stage 3 consultation document Section 9 Appendix A, reproduced below:

Figure 1 ACP 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).

[2] Consultation document section 5.4.
[3] Consultation document paragraph 4.2.11 and 5.4.25.
[4] Consultation document section 5.7.
[5] Consultation document section 5.5.
[6] Consultation document section 5.6.

AMS Strategic Objectives	Alignment
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. It integrates the needs of commercial and General Aviation air traffic, as well continuing to support older generation aircraft types alongside more modern aircraft types, by ensuring compatibility between aircraft operating on the existing ILS and aircraft on the proposed RNP approach procedures.
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 improve network resilience by systemising the approach procedure (reducing the need for controller intervention). Additionally, by supporting aircraft types with increased passenger capacity, this change supports a reduction in traffic volumes, which would contribute to reducing air traffic delays, improving runway and airport capacity, and increasing London Terminal Airspace capacity.
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 25], 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. This airspace change proposal maintains close alignment with existing published airspace arrangements; there are no new National Parks, AONBs, or noise sensitive buildings overflown. No new populations are overflown. RNP-AR procedures could increase the operation of more modern, 'quieter', 'cleaner' aircraft at LCY which could improve environmental impacts compared to older aircraft models, due to advancements in airframe design and more fuel-efficient engines which reduce fuel consumption, lower overall emissions of pollutants during flights and reduce noise. The airspace change has the potential to reduce air traffic growth compared with the baseline scenario (through fleet mix changes which support aircraft with greater passenger capacity) which is also anticipated to reduce environmental impacts.

2.9.6 There would be no impacts on other airspace users including owners and operators of all classes of aircraft such as general aviation, other air navigation service providers, military flights, national security, spaceflight or international obligations.

2.10 Assessment of criteria for the Secretary of State for Transport's call-in process

2.10.1 This proposal does not meet any of the call-in criteria listed on the CAA's website https://www.caa.co.uk/commercial-industry/airspace/airspace-change/secretary-of-state-call-in-process/.

2.11 Timeline for implementation

2.11.1 This ACP was submitted on Tuesday 28th July 2026, with the CAA decision expected by Friday 25th September 2026, a period of just over 8 weeks.

2.11.2 Presuming approval of this ACP in line with the CAA-agreed timeline, we intend to implement the change on Thursday 21st January 2027 in line with the standard Aeronautical Information Regulation and Control cycle (AIRAC) 01/2027. The deadline for Aeronautical Information System (AIS) submission is Friday 23rd October 2026, allowing 4 weeks to finalise the submission.

2.11.3 This is a minor change from an implementation point of view. No ATC simulation is envisaged[7], briefings are expected to be handled internally via standard mechanisms and minor updates to the Manual of Air Traffic Services Part 2 via Supplementary Instruction. There would be minor engineering changes, and appropriate procedural updates. No Letters of Agreement would be impacted.

[7] See paragraph 9.17.6 on p.27, and Figure 16 & paragraph 11.2.6 on p.31.

3. Detailed description of the current airspace and operation

3.1 Structures and routes

3.1.1 The current relevant airspace structures and routes referred to in this section are:

- Four RNAV1 transitions to final approach
  - ODLEG 1J from waypoint JACKO to ODLEG for runway 09
  - ODLEG 1G from waypoint GODLU to ODLEG for runway 09
  - LAVNO 1J from waypoint JACKO to LAVNO for runway 27
  - LAVNO 1G from waypoint GODLU to LAVNO for runway 27
- Two main conventional instrument approach procedures
  - From ODLEG ILS-DME to land runway 09 using 5.5° glidepath
  - From LAVNO ILS-DME to land runway 27 using 5.5° glidepath

3.1.2 See Figure 2 below for the current RNAV1 transitions to final approach, combined into a single diagram. These procedures would remain unchanged for use by LCY traffic not approved to use the ACP procedures, i.e. the majority.

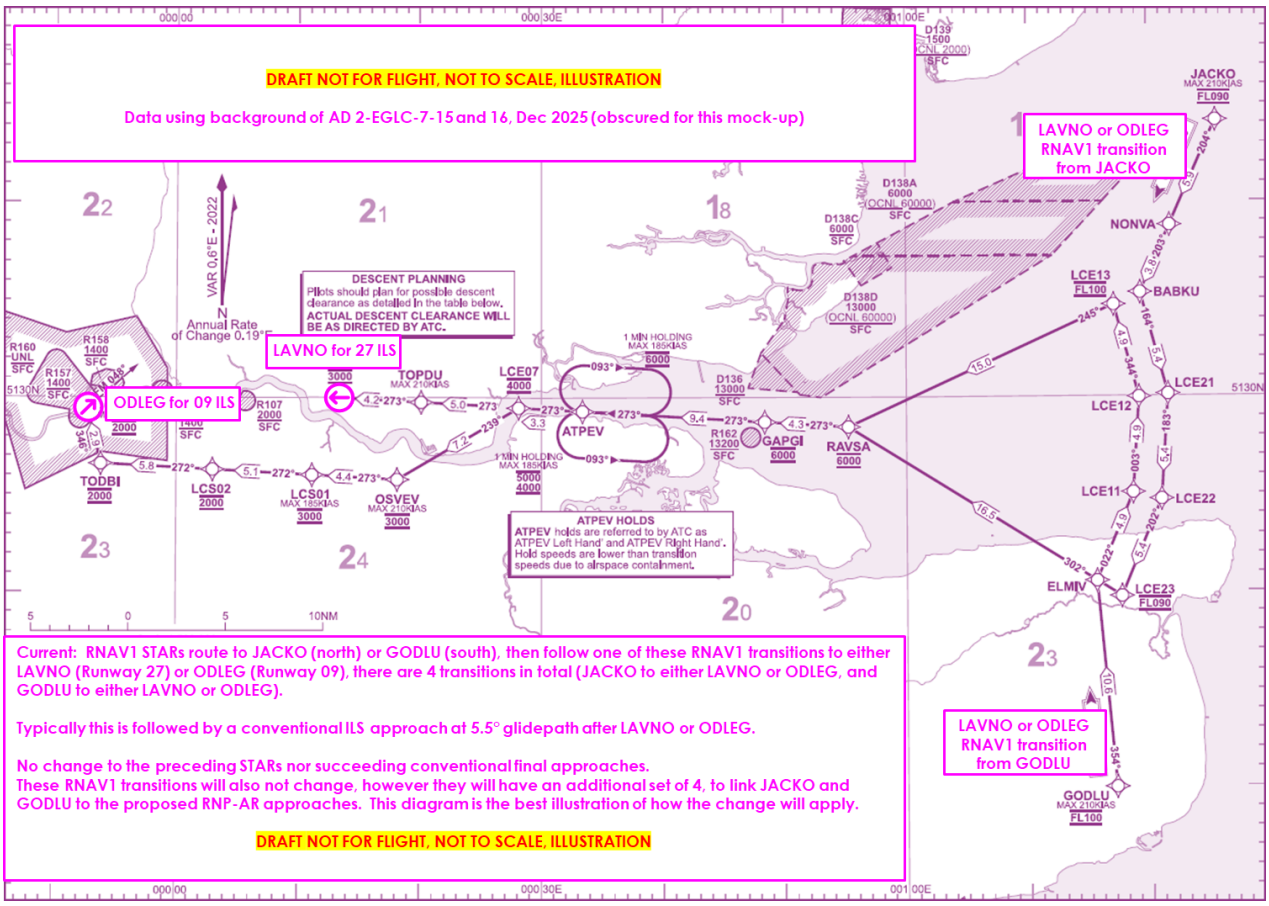


Figure 2 Combined diagram illustrating all four current RNAV1 transitions to final approach

3.1.3 This means there are typically[8] four arrival permutations, where one of the two RNAV1 transitions per hold combines with one of the runway-specific 5.5° ILS approaches.

3.1.4 Controlled airspace is not a relevant factor in this ACP, it would not change.

[8] If the ILS glidepath is not functioning then there are equivalent localiser-DME approaches, and also visual approaches.

3.2 Airspace usage

3.2.1 Figure 3 below illustrates the proportions of arrivals (within the orange box) to, and departures (within the blue box) from, each runway.

3.2.2 All arrivals (orange box) to LCY come from the east via the RNAV1 transitions described above, which either head straight in to join the runway 27 ILS or turn left and fly past the airport to the south, before turning north then east to join the runway 09 ILS to land.

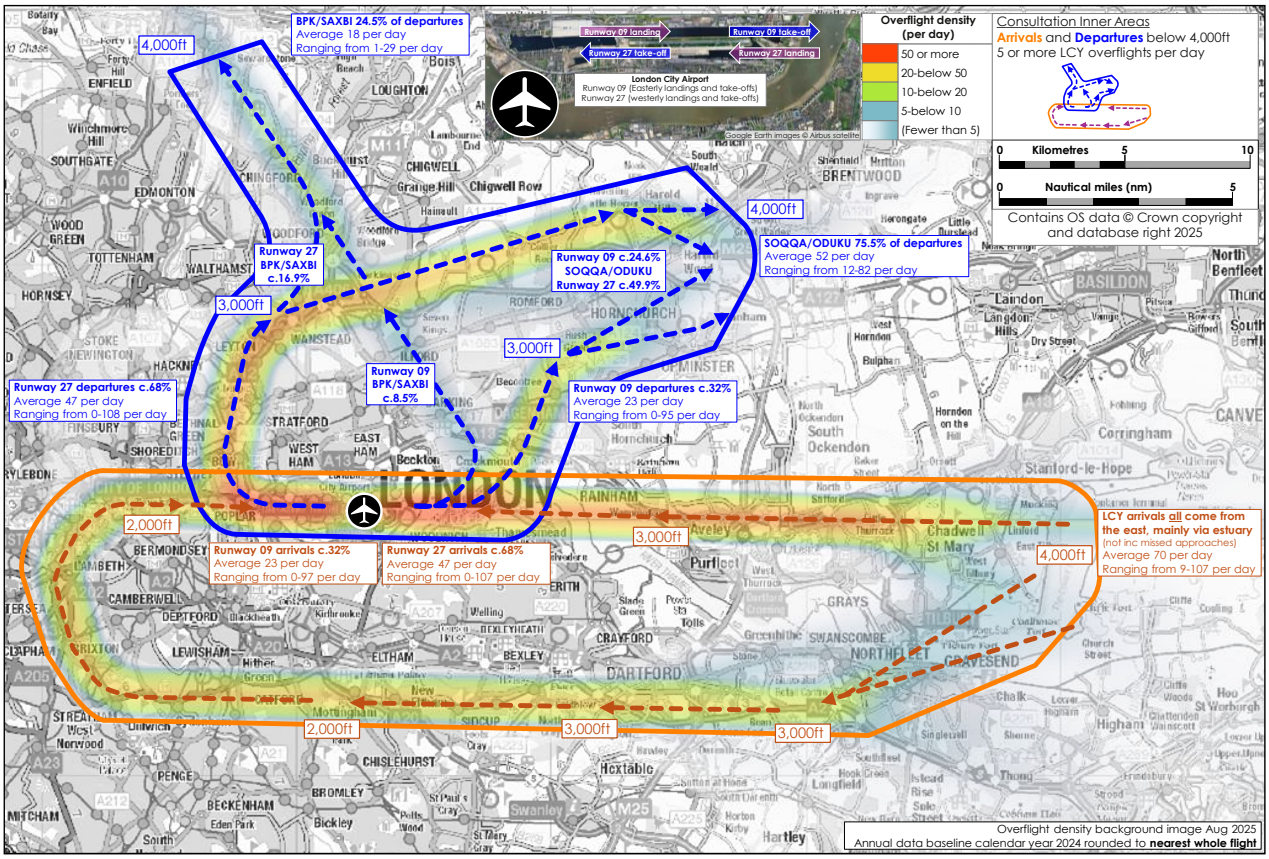


Figure 3 Traffic below 4,000ft, 2024 ATMs by flow, with Aug 2025 overflight density of 5 or more per day

3.2.3 All departures (blue box) turn to the north and then towards their network joining point for onward travel. Departure procedures would not change under this ACP, only the fleet mix due to the additional aircraft type.

3.2.4 The following figures show the forecast aircraft types and number of air traffic movements (ATMs) without and with the change, assuming the same proportions of runway usage in the figure above.

*Figure 4 Implementation year & 12 years later: fleet mix, ATMs and passenger forecast (*not inc corporate jets) Both the following tables contain rounded numbers – this means attempts to sum the already-rounded data in columns will **not** exactly match totals, which are presented as summed raw data rounded to nearest integer.*

	Without change				With change			
	2027 Year 1		2038 Year 12		2027 Year 1		2038 Year 12	
Aircraft	**Rwy 09**	**Rwy 27**	**Rwy 09**	**Rwy 27**	**Rwy 09**	**Rwy 27**	**Rwy 09**	**Rwy 27**
A220	2,240	4,760	6,432	13,668	2,240	4,760	4,448	9,452
ATR72	768	1,632	992	2,108	768	1,632	960	2,040
DHC8	1,216	2,584	0	0	1,216	2,584	0	0
E190	11,712	24,888	1,248	2,652	9,920	21,080	0	0
E190E2	448	952	1,248	2,652	448	952	864	1,836
E195E2	512	1,088	21,440	45,560	512	1,088	5,408	11,492
Corp Jets	1,124	2,390	1,124	2,390	1,124	2,390	1,124	2,390
A320neo	Not possible without change				544	1,156	11,968	25,432
Per Rwy	18,020	38,294	32,484	69,030	16,772	35,642	24,772	52,642
Total ATM	**56,311**		**101,502**		**52,389**		**77,368**	
Passengers	**4.1m**		**9.0m**		**4.1m**		**9.0m**	

*Figure 5 Detailed annual ATMs and passenger forecast to 9.0mppa limit (*not inc corporate jets)*

	Without change			With change		
Year	**ATMs**	**Pax**	**Pax/ATM***	**ATMs**	**Pax**	**Pax/ATM***
2027	56,311	4.1	73	52,389	4.1	78
2028	58,206	4.2	72	55,644	4.4	79
2029	60,395	4.4	73	57,636	5.1	89
2030	60,006	4.6	77	56,016	5.6	100
2031	62,906	4.8	76	56,747	6.2	109
2032	64,656	5.1	79	57,354	6.6	115
2033	66,968	5.4	80	61,719	7.1	115
2034	69,249	5.7	82	66,149	7.7	116
2035	71,675	6.0	84	72,411	8.4	116
2036	80,793	6.9	85	77,368	**9.0**	116
2037	91,985	8.0	87	77,368	**9.0**	116
2038	101,502	**9.0**	89	77,368	**9.0**	116

12-year total	**844,652 ATMs**	**c.68m pax**	**768,169 ATMs**	**c.82m pax**
			c.76,500 fewer	**c.14m more**

4. Detailed description of the changes to airspace design and operation

4.1 Structures and routes

4.1.1 In addition to the (extant, remaining) four RNAV1 transitions described in Section 3, four new RNAV1 transitions are required. They follow the waypoints of the extant transitions but would be truncated copies, adapted to allow for connection to the new RNP-AR approaches. Note that the names used for these transitions are working names with an asterisk*, subject to formal CAA designation as part of this ACP's decision stage.

- Four new RNAV1 transitions to final approach
  - OSVEV 1J* from waypoint JACKO to OSVEV for runway 09
  - OSVEV 1G* from waypoint GODLU to OSVEV for runway 09
  - TOPDU 1J* from waypoint JACKO to TOPDU for runway 27
  - TOPDU 1G* from waypoint GODLU to TOPDU for runway 27

4.1.2 Four instrument approaches are required, two main, two for contingency purposes only if Air Traffic Control (ATC) guidance was not available following a missed approach.

- Two main instrument approaches:
  - From OSVEV RNP-AR to land runway 09 using 4.49° approach slope
  - From TOPDU RNP-AR to land runway 27 using 4.49° approach slope
- Two contingency instrument approaches (not expected to be flown):
  - Following a missed approach with no ATC guidance only, RNP-AR to land runway 09 using 4.49° approach slope
  - Following a missed approach with no ATC guidance only, RNP-AR to land runway 27 using 4.49° approach slope

4.1.3 Consultation feedback did not influence any changes to these IFPs (see section 2.8 on p.6). As stated in the consultation, they are designed to match the extant IFPs except for the final approach slope and the new contingency IFPs which are not expected to be flown. Any missed approach would be handled in the same way as today, by controller radar vectoring, with negligible differences in tracks and noise impacts, which would not influence the assumptions in the Final Options Appraisal compared with the Full Options Appraisal (see Section 9 from p.22).

4.1.4 See Figure 6 below for the four proposed RNAV1 transitions to final approach, combined into a single diagram, with illustrations of the main RNP-AR instrument approaches to land and their waypoint names.

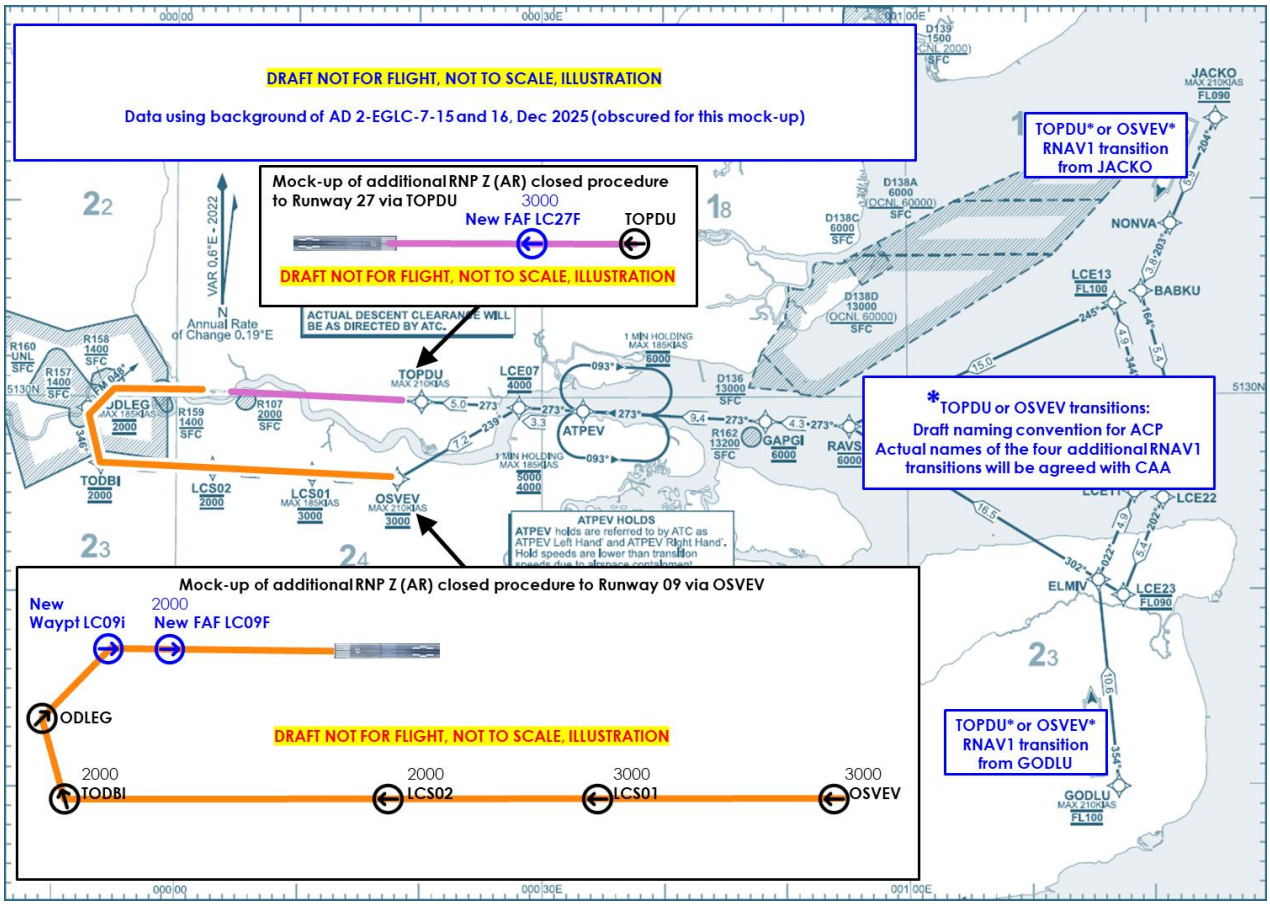


Figure 6 Combined diagram illustrating all four proposed RNAV1 transitions to final approach, and the two proposed RNP-AR instrument approaches to land

4.1.5 Figure 7 and Figure 8 overleaf show the vertical differences over key geographical features and centres of population, for runways 09 and 27 respectively – these are both direct extracts from the main consultation document. Figure 9 below also shows geographical features and population centres, including daily overflight forecast ranges without and with this ACP. As previously stated, there would be no lateral change to flightpaths because the same waypoints and transitions are used in the outer part of the IFPs, linking to new RNP-AR instrument approach waypoints which themselves are laterally aligned with the existing conventional (ILS) instrument approaches. There would be no change to flows of Instrument Flight Rules (IFR) traffic, Visual Flight Rules (VFR) traffic, nor Operational Air Traffic OAT (Ministry of Defence military flights), nor to any other aerodrome nor aviation activity in the vicinity.

4.1.6 None of the feedback received in the consultation influenced the final airspace design, nor the Final Options Appraisal metrics or assumptions, which remain the same as the Full Options Appraisal.

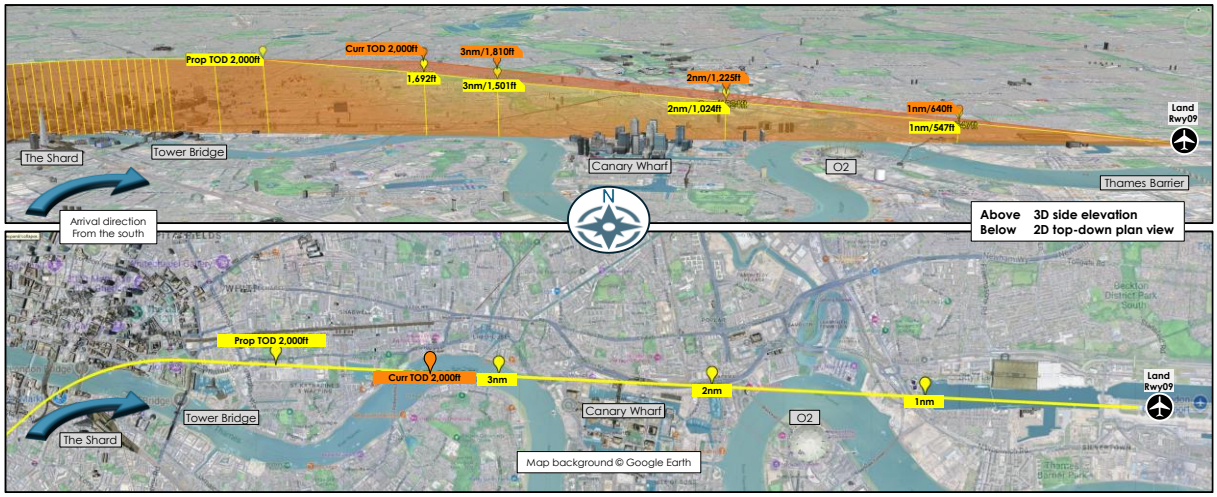


Figure 7 Final Approach diagram: Runway 09 differences in approach slope from 2,000ft, Current (Curr) 5.5° vs. Proposed (Prop) 4.49° and altitudes at 1nm intervals

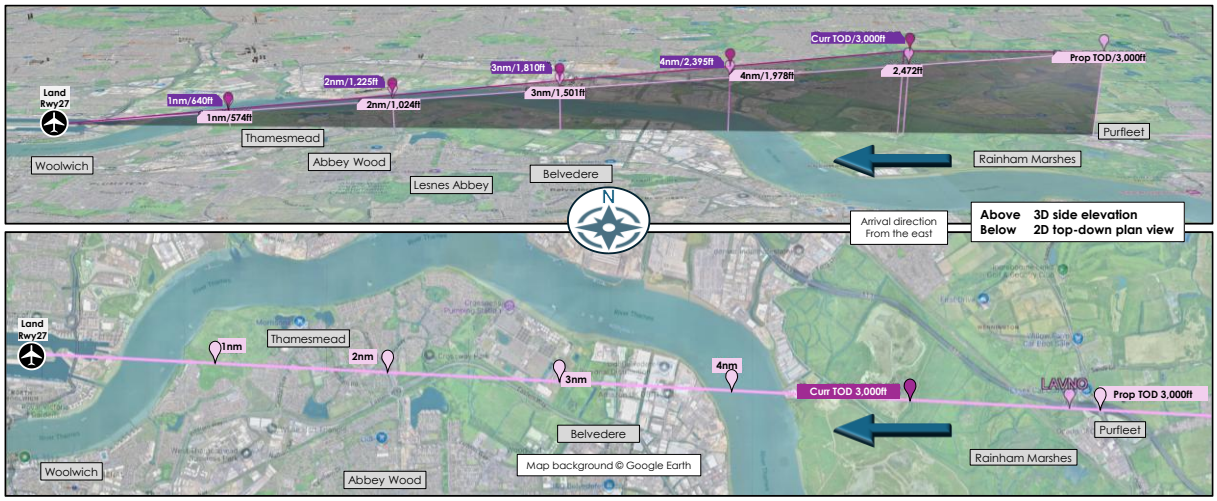


Figure 8 Final Approach diagram: Runway 27 differences in approach slope from 3,000ft, Current (Curr) 5.5° vs. Proposed (Prop) 4.49° and altitudes at 1nm intervals

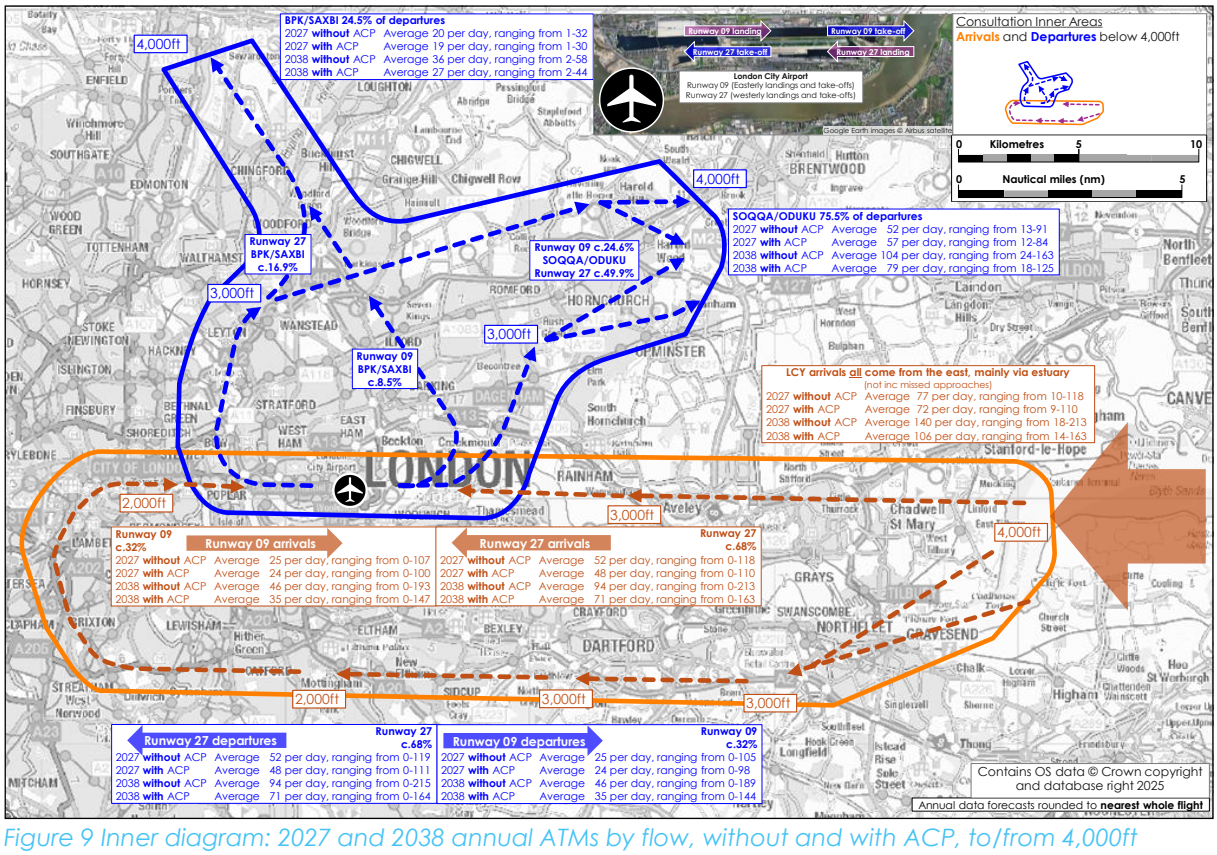


Figure 9 Inner diagram: 2027 and 2038 annual ATMs by flow, without and with ACP, to/from 4,000ft

4.1.7 There would, therefore, be four additional arrival permutations, where one of the two new RNAV1 transitions per hold and per runway combines with the runway-specific RNP-AR approaches.

4.1.8 Note: the extant unchanging arrival transitions could not combine with the new RNP-AR approaches, nor could the new arrival transitions combine with the extant unchanging conventional ILS or visual approaches. The new set of procedures would interact with other airspace structures in the same way the extant set interacts (no change).

4.1.9 Included within the scope of this ACP are missed approach closed-loop RNP-AR IFPs leading to alternate instrument approaches from overhead the airport to land at both runways. These are contingency IFPs not expected to be flown in practice, only in the extremely unlikely event of ATC guidance not available following a missed approach (ATC or aircraft radio failure and/or ATC radar failure). They are not illustrated in Figure 6 above nor in this ACP. They are included in the separate IFP dataset for CAA regulatory approval.

4.1.10 See Figure 3 on p.11, Figure 7 on p. 15 and Figure 8 on p.15 for the extent of the airspace change in relation to known geographical features and centres of population – there would be no change of lateral overflight under this change, therefore the current overflight locations are the same as the proposed overflight locations.

Figure 10 Summary of ACP Section 4 requirements

The proposal should provide a full description of the proposed change including the following:	**Description for this proposal**
New or modified airspace structures; for example, controlled airspace, air traffic service routes, special use airspace, instrument flight procedures, waypoints etc. and how they will interact with other existing airspace structures	Subsection 4.1, Figure 6, Para 4.1.8
The hours of operation of airspace structures and any seasonal variations, including aspects relating to airspace management	No change from extant LCY hours: Mon-Fri 0630-2200 (0530-2100); Sat 0630-1230 (0530-1130); Sun 1230-2200 (1130-2100); PH 0900-2200 (0800-2100).
Descriptions of instrument flight procedures, matching or taken from the instrument procedure design technical report, including relevant details on what has influenced the final design option	Subsection 4.1, Figure 6, Para 4.1.3, 4.1.9.
Supporting information on traffic data including statistics and forecasts for the various categories of aircraft movements (passenger, freight, test and training, aero club, other) and terminal passenger numbers	Figure 4 p.12, Figure 5 p.12
Details of the purpose of new, or modified, draft letters of agreement, including any that have developed out of consultation and/or from airspace management requirements	Not applicable
Evidence that the airspace design is compliant with International Civil Aviation Organisation standards and recommended practices and other applicable UK policies, or sufficient information for the CAA to consider any applications for dispensation	The IFP design has been constructed by an Approved Procedure Design Organisation under the regulatory purview of the CAA.
High-quality diagram(s) of the airspace change in its entirety as well as supplementary diagrams illustrating different parts of the change as necessary. These diagrams must, as a minimum, show the extent of the airspace change in relation to known geographical features and centres of population.	Figure 6 to Figure 9 inclusive are sufficiently detailed to illustrate the change. See also paras 4.1.4 and 4.1.5.

4.1.11 An appropriately detailed IFP technical pack will be sent to the CAA with the four new transition IFPs, the main RNP-AR approaches and the contingency missed approach IFPs from overhead the airport.

4.1.12 An appropriately detailed draft Aeronautical Information Publication (AIP) Change Request (CR, complementing the IFP technical pack) is included in Section 13 Appendix B on p.33, this is subject to change following CAA feedback and naming-convention decisions. A final AIP CR will be supplied after those decisions have concluded.

5. Detailed description of anticipated operational impacts

5.1 Minimal operational impacts

5.1.1 This ACP was designed to seamlessly integrate into the existing operation.

Figure 11 Summary of ACP Section 5 requirements

An analysis of the impact of the change on all airspace users, airfields and traffic levels must be provided, and include an outline concept of operations describing how operations within the new airspace will be managed. Specifically, consideration should be given to:	**Evidence of compliance/ proposed mitigation**
The impact on the flow of instrument flight rules flights, including general air traffic and operational air traffic	Para 4.1.5
The impact on visual flight rules operations	Para 4.1.5. See also Consultation Document p37 para 6.3 and FAQs document p4 para 2.6.
The impact on existing procedures and airspace/airport capacity	Para 3.1.2 extant procedures remain. See also Figure 4 and Figure 5 for forecast reduced air traffic growth due to this ACP.
The impact on aerodromes and other aviation activities within or adjacent to the area of the proposed changes	No change in impact due to this ACP (para 4.1.5).
Any flight planning restrictions or navigation requirements	RNP-AR for the new approach procedures, RNAV1 for new transitions, which match the unchanging remaining transitions. "AR" means Authorisation Required, restricting access.
Details of any changes to the provision of air traffic services, including justification for any delegation of the provision of air traffic services	No change.
The impact of the traffic mix on complexity and workload of operations	Figure 4 for change in fleet mix caused by this ACP. Overall slower growth in ATMs would reduce complexity and workload over time compared with doing nothing. Improved systemisation and network resilience (see Figure 1 AMS Strategic Objective on simplification). Appropriate safety and Human Factors analysis has been conducted with no hazards identified. See Section 8 on p.18.
Consideration of access requirements of other airspace users in accordance with the type and classification of airspace structure, including details on the ability to support the provision of air traffic services in accordance with the nature of the operation and the classification of airspace	No change in impact due to this ACP (para 4.1.5).
Consideration of how connectivity to/from the air traffic service network is to be achieved, including arrangements for aerodromes outside controlled airspace	No change.

6. Supporting infrastructure and resilience

6.1 Anticipated impacts on supporting infrastructure and resilience

6.1.1 This ACP was designed to seamlessly integrate into the existing operation.

Figure 12 Summary of ACP Section 6 requirements

General requirements	Evidence of compliance/ proposed mitigation
Matters relating to communication equipment and services, including operational coverage of frequencies and contingency procedures	Same as today - demonstrably sufficient
Matters relating to conventional navigation equipment and services, including navigation specifications and contingency procedures	Same as today - demonstrably sufficient
Matters relating to satellite-based navigation equipment and services, including navigation specifications and contingency procedures	Same as today - demonstrably sufficient
Matters relating to surveillance equipment and services and associated display equipment, including electronic conspicuity, contingency procedures.	Same as today - demonstrably sufficient

6.1.2 Aircraft using the new procedures will fly in areas already well served by communications, navigation and surveillance, and will fly in the same locations as those flying the remaining unchanging procedures.

7. Regulations, policies and harmonisation

7.1.1 The only relevant regulatory requirement (beyond the airspace change process itself, Refs. 1 and 17) is the IFP design and construction by the Approved Procedure Design Organisation using the standard reference material known internationally as "PANS-OPS". This is delivered in a separate package to the CAA's IFP regulator.

7.1.2 Alignment with the AMS was previously described in Figure 1 on p.8.

8. Safety Assessment

8.1 Appropriate air traffic safety assurance processes

An ATC Procedures Safety Assessment, or APSA, will be completed prior to implementation, along with a Change Assurance Report (CAR). The safety documentation will be submitted to the appropriate CAA Inspector in due course.

8.1.1 A hazard analysis workshop (HAZID) already has been completed using NATS ATC subject matter experts (NATS being the ATC provider at LCY control tower, and also at London Terminal Control, the provider of our radar approach control service), in accordance with CAP760.

8.1.2 An executive summary of the HAZID is extracted on the next page, it is written using plain language, however many of the phrases used have specific technical meaning in the world of aviation safety.

Executive Summary

Conclusion

Overall, the LCY Airspace Change Proposal (ACP) design can be assessed as acceptably safe with no hazards identified during the workshop.

Although no hazards were identified during the workshop, there were 7 issues carried over from the Stage 2 Safety Statement that required reassessment. There were also an additional 7 considerations and in-depth discussions raised at the workshop. All issues, considerations and discussions were thoroughly analysed during the workshop and the workshop controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with them.

Overview

This change affects London City (LCY) Tower (TWR) and Terminal Control (TC), who provide the radar approach function. The LCY TWR and TC Thames Subject Matter Experts (SME) considered that the LCY ACP design did not introduce any issues that resulted in adverse safety impact, additional hazards or increased risk.

Currently, LCY have a 5.5 degree (deg) Instrument Landing System (ILS) glidepath (GP) on both runways (RWY), which is designated as a steep approach and requires aircrews to undertake additional training prior to gaining authorisation to operate in and out of LCY. The types of aircraft that operate on a 5.5deg GP also require authorisation to do so.

The airspace change proposes the inclusion of a second approach angle on both RWYs, which will be set at a lower angle of 4.49deg, which is below the definition of a steep approach (4.5deg); therefore, crews do not require the steep approach training. Additionally, participating aircraft do not require the steep approach authorisation.

Obstacle clearance is maintained when using the 4.49deg on RWY09 and on RWY27.

The current procedure is an Area Navigation 1 (RNAV1) to ILS. The new proposed procedure will use a Required Navigation Performance – Authorisation Required (RNP-AR) type of approach. This procedure terminates at touchdown (TD) and does not require the use of ground-based navigation aids.

The RNAV1 procedure and the RNP-AR procedure will be run concurrently.

The Airbus A320NEO is the chosen airframe type to undertake this new GP approach and Airbus are conducting a flyability assessment.

Safety and Human Factors Analysis

This report covers the hazard analysis workshop with LCY TWR and TC Thames Air Traffic Control Officers (ATCOs) on 04 Mar 2026. The workshop built on the analysis from the LCY ACP Stage 2 Safety Assessment (SA) and determined that this change would not present any major issues to controllers or adversely impact the operation. No hazards were identified during the workshop.

The following table briefly summarises the issues raised at the Stage 2 Safety Assessment:

Serial	Issue	Comment
LCY ACP Stage 2 SA Issue 1	Both GPs will be in use.	Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY ACP Stage 2 SA Issue 2	ATCO fails to recognise the change of GP.	Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY ACP Stage 2 SA Issue 3	A320neo would begin its descent 1nm earlier on the 4.49deg GP than an aircraft using the 5.5deg GP, which may create a catch-up scenario.	Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY ACP Stage 2 SA Issue 4	How will the Precision Approach Path Indicators (PAPIs) deal with the change of GP?	The CAA have indicated that PAPIs would not be required for the RNP GP. Under these circumstances, controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue for ATC. Note: The CAA is reconsidering its original PAPI position. Any change may require additional assurance assessment.
LCY ACP Stage 2 SA Issue 5	The Airbus A320neo is a larger and heavier aircraft than other current aircraft types using LCY. Would the A320 occupy the RWY for a longer period than other types?	Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY ACP Stage 2 SA Issue 6	The Airbus A320neo has a 15 to 30 knot higher speed than the current model of Embraer aircraft for stages of flight other than the GP.	Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY ACP Stage 2 SA Issue 7	Aircraft appears low on the GP to the ATCO when flying the shallower GP angle when they are expecting the 5.5deg GP.	Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.

The table below (over two pages) shows brief details of the seven additional considerations raised during the workshop. Full details will be delivered to the CAA as part of the complete safety package. In all cases, controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with the issues raised.

Serial	Issue	Comment
LCY Workshop Consideration 1	A query was raised as to what the missed approach process was for RNP aircraft.	The RNP missed approach has been designed to match the current RNAV missed approach. The controllers did not consider the ACP design would increase the number of missed approaches. Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY Workshop Consideration 2	The question of wake turbulence was raised between aircraft using the different approach GPs.	Aircraft on the two GPs are always within 1,000ft vertically and therefore standard wake spacing can be applied. (CAP 493: Manual of Air Traffic Services (MATS) Part 1) Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY Workshop Consideration 3	With the RNP approach beginning descent earlier than current operations, it was questioned whether there would be any increased interactions with transiting helicopters on the approach as there is less altitude between the A320 and transiting helicopters when compared with the standard 5.5deg GP.	The current procedures that LCY and TC, who provide the Special VFR service to the helicopters, have in place work equally well with the RNP approaches. No helicopter transits under approach are permitted once the approaching aircraft started its descent and neither can helicopters cross the approach track when any approaching aircraft be affected by the helicopters. Helicopters will continue to use the most appropriate holds until the approaching aircraft are clear. Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.

Serial	Issue	Comment
LCY workshop Consideration 4	The impact of forgetting to manually update the approach type to RNP within EFPS or EXCDS was considered	The LCY TWR controller would review the approach path monitor and have temporary minor confusion as what GP the aircraft is on. There is an existing procedure requirement to challenge the pilot or check the strip for aircraft type, which would address any confusion. LCY TC controller stated this issue could cause the controller to give the wrong phraseology to the pilot. On RWY 09 the route is different for an RNP-AR approach, whereas on RWY 27 the route is the same so would make no difference. However, it was considered there would be no impact as pilots know the correct route to follow for their flight plan and therefore the pilot would self-correct and challenge the TC controller. A simple check of the aircraft type on the EXCDS strips would allow the controller to correct the approach type and reissue the correct route. Giving the wrong route was considered an existing issue today that could occur. Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY workshop Consideration 5	ATC monitoring approach was reviewed, and the question was raised whether over reliance on radar data labels to build situational awareness of range based on altitude could drive any issues	Controllers considered it a transitional impact only, as ATC re-evaluate their perception of range based on the radar data label as they learn their correspondence with the A320NEO. Any minor confusion caused by incomplete scanning would be quickly addressed by reviewing the ATM. Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY workshop Consideration 6	The approach path monitor alert sensitivity was considered as a result of the change and the impact on controllers discussed	LCY anticipate the alert may need amending by approximately half a degree to ensure spurious alerts are minimised. The alert parameters require further testing by the unit to optimise the alert performance. If the alert had excessive spurious alert instances within transition, controllers are permitted to turn the alert off. The alert is a controlling aid offering advice only. Current procedures are if the alert triggers the LCY TW controller to challenge the pilot, explaining the aircraft appears above or below the glidepath and this procedure remains consistent. Controllers confirmed there was no adverse safety impact, additional hazards or increased risk associated with this issue.
LCY workshop Consideration 7	A query was raised to discuss the impact on workload on the LCY Tower controller from the additional A320NEO aircraft	The inclusion of the A320NEO aircraft for LCY in the first few years only leads to a minor increase in traffic, with some extra 3-4 flights a day anticipated. This led to a minor increase in LCY TWR task workload only with the controller having more aircraft to plan and monitor. The intention of the additional glidepath is that other aircraft types could eventually use the RNP_AR glidepath which could result in a much more significant increase to workload. Should this situation arise for future operations, then additional assurance will be required to assess the impact on human performance. The controllers had no concerns as a result on this change in the current operation, and this was not considered a credible issue impacting human performance.

9. Final Options Appraisal including Environmental Assessment

9.1 No changes from Stage 3 Full Options Appraisal

9.1.1 The airspace design did not change following the analysis of consultation feedback. There are no new forecasts or datasets for this proposal.

9.1.2 There is no reason to change or update the baseline, from a proportionality point of view, due to its recency and the simplicity of maintaining the presentation of the 2023 price base year and associated reference costs/prices.

9.1.3 After reviewing the feedback and considering if it would impact the Full Options Appraisal analysis methodologies, none of the feedback we received caused changes. We confirm that the original assumptions, worksheets, data sources and technical annexes all remain valid.

9.1.4 We received airline feedback requesting we consider allowing other aircraft types to use the shallower approach, reducing airline costs (see paragraphs 2.8.5 and 2.8.8 on p.7). We previously published a robust potential future mechanism for considering other aircraft types, in the main Consultation Document Section 10 Appendix B. That airline's feedback did not cause a change to fleet mix assumptions, hence no remodelling of data was required for the Final Options Appraisal.

9.2 Publication of the CAA's Aviation Noise Attitudes Survey (ANAS)

9.2.1 In June 2026 the CAA published the results of its most recent Aviation Noise Attitudes Survey (ANAS), also known as CAP3131. Publication of these results occurred more than seven months after the noise contours and associated data was modelled for this proposal, and four months after the CAA approved the Stage 3 Full Options Appraisal at the Gateway Assessment.

9.2.2 We understand anecdotally that some stakeholders are aware of ANAS and have an interest in its relevance to this ACP. However, since the publication of the ANAS findings post-dates the ACP consultation, this stakeholder interest is not reflected in the consultation responses.

9.2.3 This ACP was submitted using the process and guidance in force at the time. The subsequently-published ANAS study does not represent a shift in CAA policy or guidance for this ACP, and it is too early to tell if the ANAS study might influence a future policy or process change. Any future ACP will align with the processes and guidance in force at that time.

9.3 Avoiding unnecessary duplication

9.3.1 It would be disproportionate to duplicate dozens of pages into this ACP, therefore we formally state that the Stage 4 Final Options Appraisal is identical to the already-published Stage 3 Full Options Appraisal.

9.3.2 In this section we will summarise the conclusions from, and provide cross-references to, the detailed Stage 3 Full Options Appraisal, abbreviated as FOA. (Link to consultation website, FOA link and technical annexes available in a list at the bottom). To each FOA conclusion we have added a brief summary of how consultation feedback has been addressed, and (where relevant) confirmation that the FOA analysis was not impacted by that feedback.

9.4 Communities: Noise impacts FOA conclusion

9.4.1 Using all the information in the FOA we have illustrated, quantified and monetised changes in noise impacts, without and with the change over the 12-year appraisal period using primary and secondary metrics.

9.4.2 We illustrated that, in general, the 2027 without change option has greater impacts than the 2024 current situation because more flights would lead to larger contour and overflight areas.

9.4.3 We also showed that, using the primary metrics, the with-change L_{Aeq} contour areas are always smaller and entirely within the without-change contours, for both 2027 and 2038. This means smaller areas would be impacted on average, with fewer dwellings and fewer people. Likewise for noise-sensitive buildings, overall fewer would be impacted with the change than without. As previously stated, there would be c.76,500 fewer flights with the change than without, over the 12-year appraisal period.

9.4.4 The output from the standard Government WebTAG tool (see FOA Appendix A – WebTAG Noise Output on FOA p.46), which uses the primary noise contour metrics as its input, shows that, over the 12-year appraisal period, the benefit would be £32.2m NPV. Overall, almost 112,000 people would experience reduced daytime noise over the appraisal period (more than the city of Worcester), and more than 10,000 would experience reduced night time noise (i.e. our 0630-0700 opening hours technically count as "night").

9.4.5 Using the secondary metrics, the with-change N65 contours are also always smaller in area than the without-change contours, reducing the overall impact areas with fewer dwellings and fewer people. The 2027 with-change contours are entirely inside, or align with, the equivalent without-change contour. There are some areas where the 2038 with-change contours cross slightly outside the equivalent without-change contours, indicating some industrial areas and some populated areas may observe more frequent noise events of 65dB L_{ASmax} than without-change in 2038. The total overall N65 impact is, however, always smaller overall with-change than without, due to fewer flights overall.

9.4.6 The overflight contours provide similar data to the N65 contour data, i.e. in every case the with-change population is lower than the without-change.

9.4.7 The primary metrics feed into FOA Section 4 cost-benefit analysis, on FOA p.41.

9.4.8 We conclude that, considering the overall noise impacts of each option, the with-change option is preferable to the without-change option.

9.4.9 Consultation feedback: As described in the Consultation Response Document p.46 paragraph 3.10.16, none of the noise related feedback caused a change to the airspace design, nor to the FOA assumptions or methodology, therefore the FOA metrics (from FOA p.8 section 3.1) remain unimpacted and the conclusion above remains unchanged.

9.5 Communities: Local air quality FOA conclusion

9.5.1 From the FOA Technical Annex D report, there are negligible differences in impact between the with-change and without-change options, with the balance slightly in favour of with-change. Therefore we conclude that, in considering the air quality impacts of both options, the with-change option is preferable.

9.5.2 Consultation feedback: As described in the Consultation Response Document p.46 paragraph 3.10.19, none of the air quality related feedback caused a change to the airspace design, nor to the FOA assumptions or methodology, therefore the FOA metrics (from FOA p.28 section 3.2) remain unimpacted and the conclusion above remains unchanged.

9.6 Wider society: Greenhouse gas emissions FOA conclusion

9.6.1 Over the 12-year appraisal period there would be an overall benefit of 18.38 kT CO_2e under this proposal, a reduction of 9.93kg/passenger.

9.6.2 Monetised, this would be a benefit to wider society of £3.7m NPV.

9.6.3 This feeds into FOA Section 4 cost-benefit analysis, on FOA p.41.

9.6.4 We conclude that, in considering greenhouse gas emissions for both options, the with-change option is preferable to the without-change option.

9.6.5 Consultation feedback: As described in the Consultation Response Document p.46 paragraph 3.10.19, none of the greenhouse gas emissions related feedback caused a change to the airspace design, nor to the FOA assumptions or methodology, therefore the FOA metrics (from FOA p.29 section 3.3) remain unimpacted and the conclusion above remains unchanged.

9.7 Wider society: tranquillity FOA conclusion

9.7.1 The potential negative impacts on tranquillity of this proposal on RSPB Rainham Marshes nature reserve (attributable to a minority proportion of flights operating slightly lower) would be more than offset by the benefit in reduced overall flights over the 12-year appraisal period.

9.7.2 We conclude that the with-change option is preferable to the without-change option.

9.7.3 Consultation feedback: There was no feedback relating specifically to tranquillity, so this FOA element was qualitatively assessed. However we can consider tranquillity and noise impacts to be analogous. As described in the Consultation Response Document p.46 paragraph 3.10.16, none of the noise related feedback caused a change to the airspace design, nor to the FOA assumptions or methodology, therefore the FOA metrics remain unimpacted. For more details on tranquillity's qualitative assessment see FOA p.31 section 3.4, its conclusion above remains unchanged. See below for discussion of impacts on wildlife.

9.8 Wider society: biodiversity FOA conclusion

9.8.1 As noted in FOA paragraph 3.5.2, the Stage 2 Habitats Regulation Assessment (HRA) screening report remains correct. On that basis and in view of our additional assessment of impacts on Rainham Marshes (see FOA paragraph 3.4.8), we conclude that there would be no significant changes to biodiversity as a result of the ACP. We consider that the with-change option is preferable due to the expected benefit of the reduction in overall numbers of flights over the 12-year period, compared to the without-change option.

9.8.2 Finally, aviation biodiversity impacts can be linked to ground based infrastructure changes. This proposal does not require any such changes.

9.8.3 Consultation feedback: As noted in the Consultation Response Document p.51 Table 2, biodiversity (including mentions of wildlife and ecosystems) was considered and addressed under the "Noise: negative" impact theme. As described in the Consultation Response Document p.46 paragraph 3.10.16, none of the noise related feedback caused a change to the airspace design, nor to the FOA assumptions or methodology, therefore the FOA metrics remain unimpacted. For more details on biodiversity's qualitative assessment see FOA p.32 section 3.5, its conclusion above remains unchanged.

9.9 Wider society: Capacity and resilience FOA conclusion

9.9.1 We conclude that, considering the implications for capacity and resilience, the with-change option is preferable to the without-change option due to c.76,500 fewer flights over the appraisal period and the associated benefits for operational efficiency and passenger experience. Passenger surface access

time savings provide an additional potential benefit and are reported transparently within the cost-benefit analysis at their full potential. Sensitivity testing on FOA p.48 at a 50% potential still gives a substantial benefit, given the inherent uncertainty in future passenger airport choice and airline market development.

9.9.2 Consultation feedback: There was no feedback relating specifically to capacity and resilience which would cause a change to the design, nor to the FOA assumptions or methodology. For details see section 3.6 of the FOA's p.35, and Figure 31 on FOA's p.36 which also includes sensitivity testing of benefits in subsequent paragraphs. The conclusion above remains unchanged.

9.10 General aviation: Access FOA conclusion

9.10.1 We conclude that this proposal is unlikely to change access impacts on other airspace users.

9.10.2 Consultation feedback: The Ministry of Defence's response concluded this would have no impact on their operation. London Air Ambulance's response introduced their concern, which was promptly answered by a published FAQ, number 2.6 on FAQ p.4, in which is clear that no operational impacts are expected on GA or other flights. The conclusion above remains unchanged and aligns with the qualitative assessment as per FOA section 3.7 p.37.

9.11 General aviation/commercial airlines: Economic impact from increased effective capacity FOA conclusion

9.11.1 We conclude that the with-change option is economically preferable to the without-change option due to c.76,500 fewer flights over the appraisal period combined with c.14m more passengers.

9.11.2 Consultation feedback: There was no feedback relating specifically to GA/commercial airline increased effective capacity, beyond the wider economic benefits of an earlier increase in passengers as qualitatively assessed in FOA section 3.8 p.37. The conclusion above remains unchanged.

9.12 General aviation/commercial airlines: Fuel burn FOA conclusion

9.12.1 Over the 12-year appraisal period there would be an overall fuel benefit of 5.78kT under this proposal, which is £1.84/passenger.

9.12.2 Formally monetised, this would be a benefit to wider society of £2.6m NPV.

9.12.3 This feeds into FOA Section 4 cost-benefit analysis, on FOA p.41.

9.12.4 We conclude that, in consideration of fuel burn for both options, the with-change option is preferable to the without-change option.

9.12.5 Consultation feedback: There was no feedback relating specifically to fuel burn, however it is inextricably linked to greenhouse gas emissions and air quality. As described in the Consultation Response Document, none of the greenhouse gas emissions and air quality related feedback caused a change to the airspace design, nor to the FOA assumptions or methodology. As such, the FOA metrics regarding fuel burn (from FOA p.38 section 3.9) remain unimpacted and the conclusion above remains unchanged.

9.13 Commercial airlines: Training costs FOA conclusion

9.13.1 The with-change option may result in additional training cost impacts for airlines compared to the without-change option. Specialised training will be required for airline personnel to safely and effectively operate aircraft using RNP-AR procedures at LCY. However, today's steep approaches also require special training, so the differences are likely minimal in practice. Finally, these costs

would be mitigated by the training being applicable elsewhere on other routes and at other airports.

9.13.2 These costs would be a factor in the airlines' decision-making, however these are not quantifiable by LCY.

9.13.3 Consultation feedback: There was one item of general feedback from KLM Cityhopper relating to airline training, which was itself directly associated with feedback regarding the use of other aircraft types. As noted in paragraph 9.1.4 on p.22 above, feedback regarding the use of other aircraft types did not cause a change to fleet mix assumptions resulting in a change to the FOA, nor would this feedback impact this proposal.

9.13.4 The conclusion above remains unchanged, and confirms that training costs would be a factor in airline decision-making outwith LCY. See FOA p.39 section 3.10.

9.14 Commercial airlines: Other costs FOA conclusion

9.14.1 RNP-AR equipment and operational approvals may involve costs for airlines including initial investment in aircraft and avionics, ongoing costs for navigation database subscriptions and potential procedure-specific approvals. However, these costs would be mitigated by the equipment and approvals being applicable elsewhere on other routes and at other airports.

9.14.2 As above, these costs would be a factor in the airlines' decision-making, however these are not quantifiable by LCY.

9.14.3 Consultation feedback: There was one item of general feedback from KLM Cityhopper relating to the purchase of navigation modules, which was itself directly associated with feedback regarding the use of other aircraft types. As noted in paragraph 9.1.4 on p.22 above, feedback regarding the use of other aircraft types did not cause a change to fleet mix assumptions, nor would this feedback impact this proposal.

9.14.4 The conclusion above remains unchanged, and confirms that such costs would be a factor in airline decision-making outwith LCY. See FOA p.40 section 3.11.

9.15 Airport/ANSP: Infrastructure costs FOA conclusion

9.15.1 Airport infrastructure costs would be unaffected by this ACP.

9.15.2 Such changes supporting traffic growth over the 2027-2038 time period are already agreed within current planning permissions, and include the terminal building and associated infrastructure. There are no new airport infrastructure requirements for the with-change option.

9.15.3 Consultation feedback: As noted in the Consultation Response Document p.46 section 3.10.20-23, feedback regarding infrastructure was covered by the airport's planning permission, as stated in the FOA p.40 section 3.12 (reproduced above). None of this feedback caused a change to the airspace design, nor to the FOA assumptions or methodology, therefore the statement above remains unchanged.

9.16 Airport/ANSP: Operational costs FOA conclusion

9.16.1 Airport operational costs are not expected to change under this ACP following its deployment.

9.16.2 Consultation feedback: There was no feedback relating specifically to operational costs, therefore the statement above remains unchanged, which is reproduced from FOA p.40 section 3.13.

9.17 Airport/ANSP: Deployment costs FOA conclusion

9.17.1 LCY already operates ground equipment and associated hardware suitable for use by the A320neo, the aircraft type forecast to be the user of the with-change procedure (noting that the with-change option is not exclusive to this aircraft type, subject to assessment of the potential impacts and benefits of the use of the new procedure by other aircraft types in the future – for more details see the Consultation Document paragraphs 2.3.5-2.3.6 and its Appendix B). Most of such equipment is interchangeable and used for a wide variety of aircraft types.

9.17.2 Therefore we do not expect the airport to incur significant deployment costs under the with-change option, and over the 12-year period equipment renewal/maintenance would be business as usual; many of our existing stands can already accommodate new aircraft types such as the A320neo.

9.17.3 Our contracted ANSP, NATS, runs the air traffic control at LCY, and NERL (its monopoly-licensed national air traffic side NATS En Route Ltd) runs the air traffic route network across the UK. Under the with-change option, their controllers and support staff will need to undergo familiarisation training and/or briefings. Some use of NATS' simulator facilities may be required. Further support staff are required to run the simulator (e.g. activity planning, data preparation, simulator testing, pseudo-pilots, Safety/Validation/Human Factors, data analysts etc).

9.17.4 There may also be additional costs associated with the development, assurance and implementation of the designed procedures, as well as this ACP. These are deemed acceptable by LCY in order to enable the with-change option to be implemented, presuming approval.

9.17.5 Consultation feedback: There was no feedback relating specifically to deployment costs. Instrument flight procedure validation, assurance and implementation is a standard element of airspace changes such as this, and is accepted by LCY. Therefore the conclusion above remains unchanged, reproduced from FOA p.40 section 3.14.

9.17.6 We held implementation planning discussions with NERL to confirm their readiness, as ANSP, for this ACP's implementation. NERL stated that simulator training is not envisaged to be required for deployment of this ACP, however this is subject to formal assessment by NERL after the CAA's decision date.
See Figure 16 and paragraph 11.2.6 on p.31.

9.17.7 Therefore those originally-considered potential qualitative deployment costs still exist but are less likely. The Final Options Appraisal for this element remains the same as the Full Options Appraisal. It does not cause any material or metric changes to the Options Appraisal process for this ACP.

9.18 Airport/ANSP: Other costs, qualitatively assessed

9.18.1 None are foreseen.

9.18.2 Consultation feedback: There was no feedback from airports or ANSPs or other stakeholders regarding other costs, therefore the statement above (reproduced from FOA p.40 section 3.15) remains unchanged.

9.19 Cost-Benefit Analysis summary from FOA

9.19.1 Full analysis is detailed in FOA Section 4 from p.40 of the Stage 3 FOA document.

9.19.2 Figure 13 below summarises the quantified and monetised impacts.

Figure 13 Summary of quantified and monetised impacts (NPV, £m at 2023 prices rounded per row item, with overall totals rounded from summed raw data))

Impact category	Net Present Value (£m)
Level 1 Impacts	
Communities: Noise impacts	£32.2
Wider society: Greenhouse gas emissions	£3.7
General aviation / commercial airlines: Fuel burn	£2.6
Level 1 Impacts Sub-Total NPV	**£38.4**
Level 2 Impacts	
General aviation / commercial airlines: Passenger surface access time savings	£59.1
Level 2 Impacts Sub-Total NPV	**£59.1**

Total Quantified NPV (**including** Level 2 impacts)	**£97.4**
Total Quantified NPV (**excluding** Level 2 impacts)	**£38.4**

9.19.3 As noted in paragraphs 9.1.2 and 9.1.3 above, assumptions and data sources (including technical annexes) remain valid and unchanged by consultation feedback, and it is proportionate to continue to present the NPV as calculated for the FOA using the 2023 price base year.

9.19.4 Figure 14 below summarises the qualitative impacts considered within the appraisal and indicates the direction of impact relative to the without-change baseline.

Figure 14 Summary of qualitatively assessed impacts

Impact category	Assessment summary	Direction of impact
Communities: Local air quality	No exceedances of limit values; differences between scenarios are negligible and slightly beneficial with-change	Neutral to slight benefit
Wider society: Tranquillity	Some flights operate marginally lower in limited areas, but fewer overall flights over the appraisal period	Net benefit
Wider society: Biodiversity	No adverse effects on European sites; reduced flight growth provides a small indirect benefit	Net benefit
Wider society: Capacity and resilience	Fewer flights required to meet demand, reduced airspace and runway congestion, improved operational resilience	Net benefit
General aviation: Access	No material change anticipated; potential benefits for General Aviation (GA) transits are hypothetical and not relied upon	Neutral
Commercial airlines: Training costs	Additional RNP-AR training required but commercially recoverable and transferable	Minor disbenefit
Commercial airlines: Other operational costs	Equipage and approvals required but offset by wider operational utility	Neutral to minor disbenefit
Airport / ANSP: Infrastructure costs	No new airport infrastructure required	Neutral
Airport / ANSP: Deployment and operational costs	Some implementation and familiarisation costs expected but proportionate and manageable	Minor disbenefit

9.19.5 Overall, the qualitative assessment indicates that non-monetised impacts are predominantly neutral or beneficial. Where minor disbenefits occur, these are limited in scale, largely transitional, and do not outweigh the significant benefits identified elsewhere in the appraisal.

Overall cost-benefit balance, FOA conclusion

9.19.6 The cost-benefit analysis demonstrates that the with-change option delivers a clear and substantial net benefit relative to the without-change baseline.

9.19.7 The quantified appraisal produces a positive NPV over the 12-year appraisal period on the basis of core (Level 1) monetised impacts alone, with passenger surface access time savings reported separately as an adjusted (Level 2) benefit

due to greater uncertainty, which also underwent sensitivity testing. When qualitative impacts are also taken into account—including improvements in capacity, resilience and environmental efficiency—the overall balance of impacts is strongly in favour of the with-change option.

9.19.8 The cost-benefit analysis (CBA) findings are consistent with, and reinforce, the conclusions reached in this Final Options Appraisal. They provide clear evidence that the proposed introduction of RNP-AR procedures represents a proportionate and beneficial airspace change in accordance with CAP1616 and DfT Transport Analysis Guidance (TAG).

10. Reversion statement

10.1 What if the implementation needs to be reversed?

10.1.1 This proposal has been carefully prepared to give it the best opportunity for successful completion. However, it is prudent to acknowledge that unexpected events could arise.

10.1.2 In the unlikely event the proposal requires reversal once approved and implemented, temporary and/or permanent reversion to the pre-implementation state would be relatively straightforward in theory, but complex in practice.

10.1.3 In theory, the additional flight procedures could be temporarily suspended or permanently withdrawn, leaving only the original arrival routes available. This could initially be done via NOTAM or by adding Route Availability Document (RAD) restrictions before a permanent change is made.

10.1.4 However, in practice airlines build their flight schedules around their fleet. Changing that mix would likely have significant consequences on aircraft operators, which would suddenly need to use the smaller aircraft on the 5.5° approach slope. The noise and fuel benefits would no longer accrue.

10.1.5 Should such a reversal manifest, we would engage with the CAA and work with them to identify a solution. This could be, for example, a temporary suspension while a new modified ACP is progressed.

10.1.6 We do not expect this to occur, but we have considered what might happen and how to progress.

11. List of supplementary documents

11.1 Relevant material already published

11.1.1 Previously-published documents as listed on page 3.

- Confirmation in Section 9 p.22 that the Full Options Appraisal and Final Options Appraisal are identical, thus no separate Full Options Appraisal document is supplied.

11.2 Supporting material published in this ACP document

11.2.1 This document contains Appendix B: Draft AIP Changes on p.33, a draft AIP change document. Specific elements will be agreed with the CAA, such as IFP names and reference numbers, after the CAA has completed its decision.

11.2.2 Email (redacted extract below) from NATS Head of ATC Operations at Swanwick confirming they will be ready for implementation, presuming approval:

From: [redacted]
Sent: 09 July 2026 15:56
To: [redacted]
Cc: [redacted]
Subject: London City Airport ACP additional shallower approaches - NERL readiness
Importance: High

Dear [redacted]

I'm writing on behalf of London City Airport as their commercially-appointed ACP consultant via NSL.

LCY's ACP is designed to allow certain authorised aircraft to fly a slightly shallower 4.49° final, from 2,000ft (rwy 09) and from 3,000ft (rwy 27), using RNP-AR instrument approaches.
The point-merge RNAV1 transitions to final will be duplicated and adapted for this purpose.

Our launch target type is the A320neo, and the ACP has been written around that as our case study.

Other aircraft types will continue to use the unchanging RNAV1 transitions joining the conventional ILS with its 5.5° glideslope.

Part of the ACP submission requires me to acquire confirmation that adjacent ANSPs have been engaged, and will be ready for deployment (presuming regulatory approval).

Should approval from the CAA be forthcoming in September as expected, implementation would be 21 January 2027 (AIRAC 01/2027), with AIS cutoff 23 Oct and AIP publication 10 Dec 2026.
Sam Wright, Ops Readiness & Transition Manager, has been a NERL SME for this ACP.

Please could you confirm, on behalf of Swanwick ATC Operations, that you will be ready for this deployment, considering any adaptation/flight strips/ATC briefing information etc?

Thank you for your time – please respond by next **Thursday 16th July 2026** in order for a (redacted) copy of this email trail to be included in the ACP documentation package.

Best wishes
[redacted]

RE: London City Airport ACP additional shallower approaches - NERL readiness

[redacted] Reply Reply All Forward

To [redacted] Thu 23/07/2026 10:06
Cc [redacted]

Follow up. Start by 23 July 2026. Due by 23 July 2026.
You forwarded this message on 23/07/2026 16:21.

Hi [redacted]

Thank you for your email and for the engagement with NERL throughout the development of this ACP.

Having reviewed the proposed implementation approach and timescales, NERL Operations has no concerns regarding the introduction of the proposed RNP-AR procedures at London City Airport. Subject to regulatory approval, the proposed deployment date of 21 January 2027 (AIRAC 01/2027) is acceptable from an operational perspective.

This acceptance is, however, contingent upon receipt by NERL of all documentation and information required to support the necessary system updates no later than 1 October 2026. This date is required to enable the changes to be incorporated into our planned system update activities commencing on 25 November 2026, ensuring sufficient time for implementation, testing, briefing and operational preparation ahead of deployment.

Should the required information not be available within the timescale detailed above, the next planned opportunity for the relevant system updates is currently 16 March 2027. In those circumstances, NERL would be unable to support the January 2027 operational implementation date. Whilst the publication and introduction of the new RNP-AR procedures could still proceed, NERL TC Operations would defer their operational use until the necessary system changes had been completed and brought into service.

Based on the above proviso, Swanwick ATC Operations confirms that it has been engaged in the development of the ACP and has no objection to the proposed implementation.

Kind regards

[redacted]

NATS

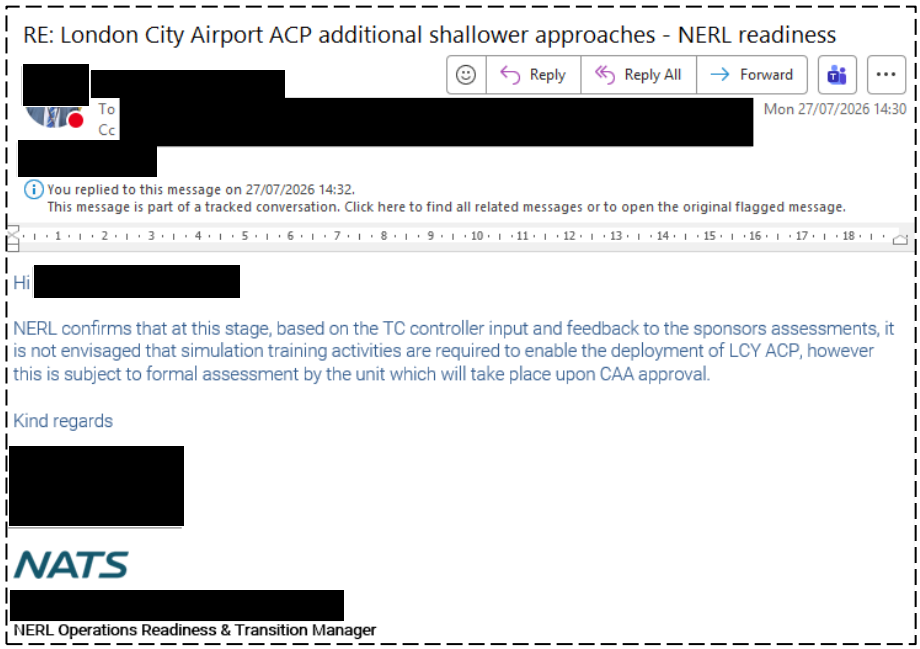
[redacted]
NERL Operations Readiness & Transition Manager

Figure 15 Screenshot of email trail 1 with NERL Operations Readiness

11.2.3 The above email trail 1 includes a timeline dependency imposed by NERL, our ANSP for approach functions, to ensure appropriate engineering adaptations occur early enough for their systems update cycle. This requires advance supply of IFP designations for the new procedures, for ATCO issuance and selection within their electronic flight progress strip system.

11.2.4 The CAA's IFP Regulation Team is responsible for allocating IFP designations.

11.2.5 We have emailed the CAA to ask them to confirm such designators will be provided in a timely manner presuming approval. Draft working designations are provided in Section 13 on p.33 which will be subject to CAA IFP review.


RE: London City Airport ACP additional shallower approaches - NERL readiness

Reply Reply All Forward

[redacted]

To [redacted]

Cc [redacted]

Mon 27/07/2026 14:30

You replied to this message on 27/07/2026 14:32.
This message is part of a tracked conversation. Click here to find all related messages or to open the original flagged message.

Hi [redacted]

NERL confirms that at this stage, based on the TC controller input and feedback to the sponsors assessments, it is not envisaged that simulation training activities are required to enable the deployment of LCY ACP, however this is subject to formal assessment by the unit which will take place upon CAA approval.

Kind regards

[redacted]

NATS

[redacted]

NERL Operations Readiness & Transition Manager

Figure 16 Screenshot of email 2 from NERL Operations Readiness

11.2.6 The above email relates to the Full and Final Options Appraisal element regarding Airport/ANSP deployment costs, this is covered in section 9.17 on p.27.

11.3 Relevant material supplied to CAA (not published)

11.3.1 The CAA already has originals of the WebTAG Excel workbooks relating to monetisation; these were supplied at Stage 3. The published versions are available in Stage 3 Full Options Appraisal Section 7 Appendix A (WebTAG Noise) and Section 8 Appendix B (WebTAG Greenhouse Gas).

11.3.2 A file containing emails to stakeholders regarding the consultation and engagement during Stage 3, for example, launch emails to identified stakeholders, emails supplying webinar attendees with copies of the presentation, mid-point reminders and other similar emails.

11.3.3 Safety-related documentation will be submitted to the CAA in due course.

11.3.4 IFP package (submitted separately via our Approved Procedure Design Organisation).

12. Appendix A: Glossary

Acronym or word	Meaning
ACP	Airspace Change Proposal
AIP	Aeronautical Information Publication
Altitude	The distance, in feet, above mean sea level. Used in aviation to describe an aircraft's vertical distance from a local datum, rather than referring to ground level. 3,000ft altitude is 3,000ft above mean sea level in the region. See also FL Flight Level.
AMS	Airspace Modernisation Strategy
ANSP	Air Navigation Service Provider
ATC, ATCO	Air Traffic Control (Officer)
ATM	Air Traffic Management
ATS	Air Traffic Service
BADA	Base of Aircraft Data
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication, followed by a number. A document published by the CAA, in some cases these are process related, such as CAP1616 (Ref 1) introducing the UK's airspace change process.
CAS	Controlled Airspace
CFSP	Commercial Flightplan Service Provider
CTA	Control Area
DAATM	Defence Airspace and Air Traffic Management
DP	Design Principle (see Stage 2 documentation)
DPE	Design Principle Evaluation (see Stage 2 documentation)
FIR	Flight Information Region
FL	Flight Level. The distance in hundreds of feet above a worldwide average pressure level. Used higher, away from airports, where the relative vertical distance between aircraft is more important than their absolute distance from the surface. FL310 is 31,000ft above this imaginary datum. For this ACP the differences between altitude, FL and airport elevation are negligible.
FOA	Full Options Appraisal (see complementary document)
GA	General Aviation
IFP	Instrument Flight Procedures
IFR	Instrument Flight Rules
ILS	Instrument Landing System, the most commonly used approach type at LCY, set to a slope of 5.5°
IOA	Initial Options Appraisal (see Stage 2 documentation)
LCY (also known as EGLC)	London City Airport
LTMA	London Terminal Control Area
MoD	Ministry of Defence
NATMAC	National Air Traffic Management Advisory Committee
NERL	NATS En Route Ltd, the UK's largest ANSP
PBN	Performance Based Navigation
RNAV1	Area navigation with a 1nm precision for 95% of the route (in practice, much close for much longer)
RNP-AR	Required Navigation Performance-Authorisation Required, a type of air navigation specification
SID	Standard Instrument Departure
SME	Subject Matter Expert
STAR	Standard Arrival Route

13. Appendix B: Draft AIP Changes

This is an indicative list of predicted changes to the AIP.

EGLC AD 2.20, 1 Airport Regulations, current text:

a. No aeroplane registered in the United Kingdom shall use the aerodrome unless there is contained in its Flight Manual data and procedures for approach path angles of 5.5° or steeper and no other aeroplane shall use the aerodrome unless it has data and procedures for approach path angles of 5.5° or steeper which have been approved or otherwise authorised by the regulatory authority of the State in which it is registered.

Change to:

a. No operator shall use the aerodrome unless authorised by the Aerodrome Authority. In addition, no aeroplane registered in the United Kingdom shall use the aerodrome unless there is contained in its Flight Manual data and procedures for approach path angles of 5.5° or steeper, or for the conduct of the 4.49° RNP AR approach, as applicable, and no other aeroplane shall use the aerodrome unless it has such data and procedures approved or otherwise authorised by the regulatory authority of the State in which it is registered. The 4.49° RNP AR approach may be used only by authorised operators of the Airbus A320neo aircraft type.

EGLC-AD-2.21, Noise Abatement Procedures, current text:

c. Aircraft making approaches without assistance from the ILS shall follow a descent path which will not result in its being at any time lower than the approach path that would be followed by an aircraft using the ILS.

Change to:

c. Aircraft making approaches without assistance from the ILS shall follow a descent path which will not result in the aircraft being, at any time, lower than the approach path that would be followed by an aircraft using the ILS. This requirement shall not apply to aircraft specifically authorised by the Aerodrome Authority and operating in accordance with the published RNP AR instrument approach procedure. Such aircraft may follow the defined vertical guidance associated with that procedure, as depicted on AD 2.EGLC-8 Instrument Approach Charts (RNP AR), notwithstanding that portions of the procedure are below the ILS approach path.

EGLC-AD-2.24, Charts related to an aerodrome

Use the separately-supplied IFP package to create four new RNAV1 transitions on two charts, appropriately numbered and named, with associated pair of coding tables.
Also create four new RNP-AR instrument approach charts, two of which would only be used as missed approach charts, and coding tables for each.
Draft working numbers/names/designations as follows, **actual numbers/names/designations depend on CAA IFP regulatory decision.**

AD 2.EGLC-7-20 RNAV1 (DME/DME or GNSS) APPROACH TRANSITIONS CHART - INSTRUMENT RWY 27 TOPDU 1G 1J – ICAO

AD 2.EGLC-7-21 RNAV1 (DME/DME or GNSS) APPROACH TRANSITIONS CHART - INSTRUMENT RWY 09 OSVEV 1G 1J – ICAO

AD 2.EGLC-7-22 APPROACH TRANSITIONS CODING TABLES RWY 27 TOPDU 1G 1J

AD 2.EGLC-7-23 APPROACH TRANSITIONS CODING TABLES RWY 09 OSVEV 1G 1J

AD 2.EGLC-8-7 INSTRUMENT APPROACH CHART RNP Z RWY 09 (AR) (CAT A,B,C) – ICAO

AD 2.EGLC-8-8 INSTRUMENT APPROACH CHART RNP Y RWY 09 (AR) (CAT A,B,C) – ICAO
(note this one is for missed approaches only)

AD 2.EGLC-8-9 INSTRUMENT APPROACH PROCEDURE CODING TABLES RNP Z/Y RWY 09 (AR) (CAT A,B,C) – ICAO

AD 2.EGLC-8-10 INSTRUMENT APPROACH CHART RNP Z RWY 27 (AR) (CAT A,B,C) – ICAO

AD 2.EGLC-8-11 INSTRUMENT APPROACH CHART RNP Y RWY 27 (AR) (CAT A,B,C) – ICAO
(note this one is for missed approaches only)

AD 2.EGLC-8-12 INSTRUMENT APPROACH PROCEDURE CODING TABLES RNP Z/Y RWY 27 (AR) (CAT A,B,C) – ICAO

Add a new NOTE in sequence to AD.2.EGLC-7-16 and AD.2.EGLC-7-17:
NOT TO BE USED IN COMBINATION WITH RNP-AR INSTRUMENT APPROACHES AD.2.EGLC-8-7/8/9/10/11/12.

Add a new NOTE in appropriate locations to AD.2.EGLC-8-1/2/3/4/5/6:
NOT TO BE USED IN COMBINATION WITH RNAV1 APPROACH TRANSITIONS AD.2.EGLC-7-20/21/22/23.

AD.2.EGLC-8-1 and AD.2.EGLC-8-4 delete Aircraft Category column “BAe 146” (this is an opportunistic administrative change unrelated to this ACP)

14. Appendix C: Design Principles

14.1 Determined at Stage 1 of this ACP

14.1.1 The following table of design principles was agreed with stakeholder representatives at the earliest stage of this proposal, and underpinned the design decisions made throughout.

Figure 17 Design Principles from Stage 1

Design Principles	Category	Description	Priority	Notes
M_DPO1	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.

Design Principles	Category	Description	Priority	Notes
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.

End of Stage 4 Airspace Change Proposal